

2022 Universal Registration Document



INCLUDING THE ANNUAL
FINANCIAL REPORT

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Universal Registration Document

INCLUDING THE ANNUAL FINANCIAL REPORT

2022



This Universal Registration Document has been filed on March 2, 2023 with the AMF, as competent authority under Regulation (EU) 2017/1129, without prior approval pursuant to Article 9 of the said regulation. The Universal Registration Document may be used for the purposes of an offer to the public of securities or admission of securities to trading on a regulated market if completed by a securities note and, if applicable, a summary and any amendments to the Universal Registration Document. The whole is approved by the AMF in accordance with Regulation (EU) 2017/1129.

This document is a non-binding “free” translation from French into English and has no legal value other than an informative one. Should there be any difference between the French and the English version, only the text in French language shall be deemed authentic and considered as expressing the exact information published by Air Liquide.

A financial and technical glossary is provided at the end of the document – pages 492 to 495.



 **VISIT OUR WEBSITE**
www.airliquide.com

MESSAGE FROM BENOÎT POTIER,

CHAIRMAN OF THE BOARD OF DIRECTORS



« **Believing in the future and, more than ever, inventing it.** »

We have reached a particular moment in the history of the world, with geopolitical tensions as well as energy and climate challenges becoming primary concerns. This context of uncertainty is a rallying call to action, with new energy approaches now available to address the common need for moderation, sovereignty and decarbonization. With the requisite tools in hand, Air Liquide is proposing innovative solutions and inventing a sustainable future.

I am therefore confident in our future. Since its creation, our Group has demonstrated its ability to take action regardless of the situation, with the past three years being the most recent proof of this. Our confidence is driven by our capacity to anticipate and design the solutions of the future, and we continuously invest in new technologies to support the industrial, electronics and healthcare sectors in their journey toward progress.

My confidence in the future is also founded on our capacity for adaptation. Our strength lies in our ability to respond to global transformations and constantly expanding our activities with solutions for our customers, all while addressing the major issues that impact society as a whole.

Finally, I am a fervent believer in the power of the collective, which has always been a cornerstone of our business model. Together with our employees, alongside our customers and our partners, and with the support of our shareholders, we have shown resilience and agility in initiating the transition toward a low-carbon society. But for future generations, we must pick up the pace. Our contribution to shared progress gives very strong significance to our individual and collective action. It is both what motivates us and what drives us forward.

INTERVIEW WITH FRANÇOIS JACKOW, CHIEF EXECUTIVE OFFICER



« **My aim is to make Air Liquide the champion of climate solutions.**

We are already able to provide tangible solutions to the major challenges of decarbonizing industrial activities. »

2022 was a pivotal year with the launch of the new ADVANCE strategic plan. What can you tell us about the Group's performance?

That it is very solid! In 2022, we achieved another year of profitable growth despite a complex and changing environment. Our reported sales reached 29.9 billion euros, up +7% ⁽¹⁾, and recurring net income grew by +17% ⁽²⁾. All our businesses – Gas & Services, Engineering & Construction and Global Markets & Technologies – are up significantly. Within Gas & Services, all our geographies are growing, in particular the Americas and Asia-Pacific.

In addition to revenue growth, we have further improved our operating margin thanks to significant efficiency gains and the dynamic management of our business portfolio. Moreover, in the context of rising energy prices, the Group has demonstrated its ability to create value, enabling it to adjust prices for customers. The quality of these results illustrates both the resilience of our business model and the mobilization and responsiveness of our teams, who have done a remarkable job in adapting to a volatile environment. I would like to take this opportunity to thank them.

I would also like to add that our investment momentum, which is the guarantee of our future growth, has accelerated, particularly in regard to hydrogen and the transition to a low-carbon society. Indeed, our investments have reached a record level of nearly 4 billion euros. Finally, in terms of extra-financial aspects, our CO₂ emissions ⁽³⁾ have remained stable for the second year in a row. This supports our goal of achieving carbon neutrality by 2050.

These results show that ADVANCE, our strategic plan combining our financial and non-financial trajectory for 2025, is already bearing fruit. On the basis of this performance, we look forward to 2023 with confidence.

⁽¹⁾ On a comparable basis.

⁽²⁾ At constant exchange rates.

⁽³⁾ In metric tonnes of CO₂-equivalent from Scopes 1 and 2 on a "market basis", restated to take into account for a full year from 2020 and each year thereafter, emissions from assets, which correspond to changes in scope (both upwards and downwards) and which have a significant impact on CO₂ emissions.

The energy crisis, inflation, war in Europe... economic and geopolitical instability seems to be taking hold. Will this have an impact on Air Liquide's strategic roadmap?

Without a doubt, 2022 was defined by a range of geopolitical, energy and climate-related crises, which have obviously had an impact on our customers, our activities and society as a whole. However, this complex year confirmed more than ever the relevance of our roadmap, as our ADVANCE strategic plan was designed to provide innovative solutions to challenges that are here to stay. The current context has therefore acted as an accelerator, strengthening our resolve to move forward with a clear goal: pursuing our global performance trajectory by combining financial and extra-financial performance.

This ambition is based on an extremely solid foundation, built on the Group's proven resilience; the robustness of our business model based on the diversity of our business lines and geographical footprint; and of course, our teams, who demonstrated yet again this year their ability to respond to all challenges. And, with ADVANCE, we are now positioned at the heart of the energy transition and are focused on the markets of the future, such as hydrogen mobility, electronics, healthcare and high technologies. All this provides Air Liquide with an unprecedented positioning in terms of the current global upheavals, and an excellent opportunity to propel the Group into the future.

Amidst all these challenges, you have made the climate crisis and decarbonization a priority.

Indeed. My aim is to make Air Liquide the champion of climate solutions. This is an urgent priority for the planet, and for us all. At Air Liquide, we are already able to provide tangible solutions to the major challenges of decarbonizing industrial activities. Moreover, our solutions apply to both our own activities and those of our customers. Our expertise and our thorough understanding of their needs means we can help our customers meet their climate commitments.

For example, we are developing large-scale hydrogen technologies for industry and mobility, and I am proud to say that we have been pioneers in this field. We are also established in CO₂ capture, biomethane and oxy-combustion, all areas that are in growing demand. We therefore offer a wide range of technologies based on our key molecules. This is something our customers appreciate, as shown by our recently formed strategic partnerships with cement manufacturer Eqiom, refiner ENI and aircraft manufacturer Airbus.

You have mentioned hydrogen as a solution for the future. What are the challenges involved with accelerating growth in this field?

The subject is no longer a matter of debate. Hydrogen has a major role to play in the decarbonization of industry and heavy transport. Its potential is huge, but we have many collective challenges to tackle before it can fully contribute to the energy transition. Industrial players clearly have a role to play, but it is necessary to build an entire ecosystem around this technology. To do so, political strategies need to be implemented that promote the development of new decarbonized usages, common regulation and, of course, support from investors and consumer adherence.

This means developing new usages in sectors such as steel and road transportation. We have established several partnerships to collectively support the opening of these new markets. Additionally, it means increasing our low-carbon and renewable hydrogen production capacities. To do so, we intend to invest a minimum of €8 billion in the low-carbon hydrogen value chain by 2035. One example is the Group's largest renewable hydrogen production unit in Normandy, France, which is under construction and will be commissioned in 2025. We have also signed long-term contracts with industrial players in Europe to supply them with low-carbon hydrogen. In the United States, the Inflation Reduction Act ⁽⁴⁾ will also create several opportunities in this respect. Driven by this unprecedented global momentum, we aim to triple sales, from €2 billion to €6 billion by 2035.

⁽⁴⁾ US Inflation Reduction Act, in place since January 1, 2023, which aims to curb inflation by reducing the deficit, while meeting the challenges of climate change and strengthening the social security system (Source: Institut Montaigne).

« **Our ADVANCE strategic plan** was designed to provide innovative solutions to challenges that are here to stay. »

In addition to decarbonization, what are the other principal growth drivers for Air Liquide?

Air Liquide's major strength has always been its dynamic and diversified business portfolio, which is rich in potential sources of growth. I would like to mention two. First, electronics, where Air Liquide is currently the leading supplier of ultra-high purity gases and advanced materials. A real revolution is taking place in this sector. The semiconductors market is growing rapidly, driven by the rapid development of artificial intelligence and connected objects, as well as by an increased need for North American and European sovereignty. This is evidenced by the establishment of several "megafabs"⁽⁵⁾ projects. We are currently reinforcing our leadership position in these geographic areas.

Our second major source of growth is of course healthcare, and in particular home healthcare. This is a sector that is continuing to evolve, after having demonstrated its central role during the public health crisis. Our Group is making a contribution. Both at hospital and at home, our activity is committed to a transformation toward value-added offers for patients and healthcare professionals. By offering personalized support and innovative solutions, we aim to improve the quality of life of patients at the best cost for the healthcare system.

You have been leading the Group since June 2022. How do you see the rest of the year?

With energy and determination. But also with a great deal of composure, owing to my confidence in the unwavering commitment of our teams, regardless of what the future may hold.

Since my appointment, I regularly meet with our teams, and every time I do, I am impressed with their proactive approach in a context which frankly had the potential to be unsettling. From one side of the globe to the other, I have seen the same commitment to satisfying our customers, the same desire to advance, innovate and create an impact. This is a great source of pride for me as a leader, and I am deeply grateful to them.

The coming months will without a doubt be complex and full of surprises. But we are ready and determined to meet the needs and expectations expressed by our customers and patients, and to invent a more sustainable future together.

⁽⁵⁾ Very large capacity electronic chip production unit.

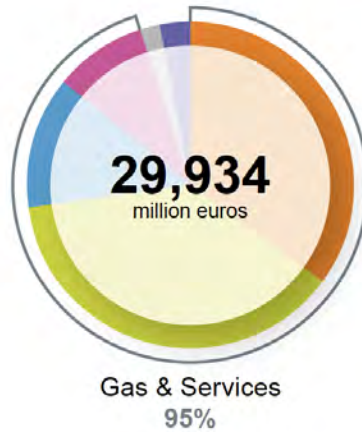
A GLOBAL PRESENCE

2022 GROUP REVENUE BY ACTIVITY

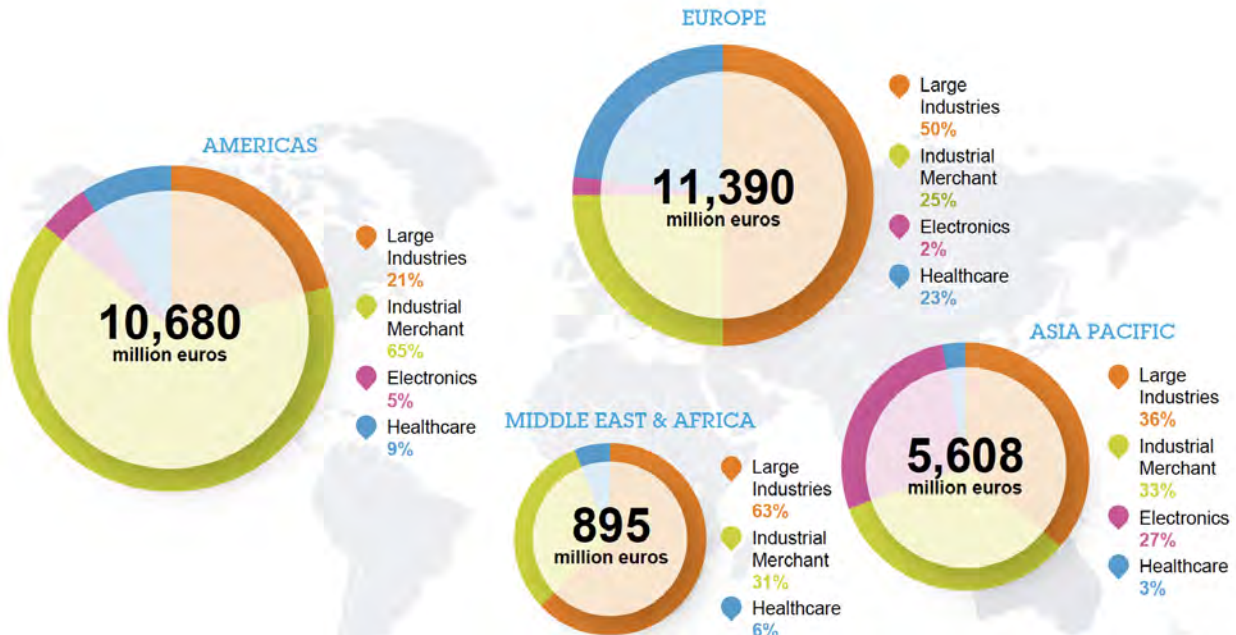
Present in
73 countries ⁽¹⁾

~ 67,100
Employees

A world leader
in gas, technologies
and services
for Industry
and Health



2022 GROUP REVENUE BY REGION AND BY ACTIVITY, FOR GAS & SERVICES (G&S)



⁽¹⁾ Excluding Russia, where the entities are in the process of being divested and now out of consolidation scope.

A WIDE RANGE OF MARKETS AND A STRONG BUSINESS MODEL

KEY ELEMENTS BY BUSINESS LINE ^(a)



LARGE INDUSTRIES

35% of Group revenues

10,525 million euros

- High capital intensity
- Customers in metals, chemicals, refining and energy
- Industrial basin and pipeline network strategy
- Long term contracts (15 years) with minimum volumes covered by take-or-pay clauses, and prices indexed on costs, including on energy cost
- Synergies with other business lines



INDUSTRIAL MERCHANT

38% of Group revenues

11,567 million euros

- Technological solutions adapted to customers' businesses
- More than 2 million customers
- Importance of logistics
- High number of applications and end-markets



HEALTHCARE

13% of Group revenues

3,923 million euros

- **Gases, equipment, and services** at home, in hospitals, and medical practices
- 1.9 million patients
- Geographical density
- Operations relying on remote patient monitoring and sophisticated IT systems



ELECTRONICS

9% of Group revenues

2,558 million euros

- Technological solutions with ultra high purity gases and advanced materials
- Long-term contracts for Carrier gases, with minimum volumes covered
- Concentration of the activity in Asia



ENGINEERING & CONSTRUCTION

2% of Group revenues

474 million euros in third party sales

- Design and construction of plants and equipment, for the Group and third party customers



GLOBAL MARKETS & TECHNOLOGIES

3% of Group revenues

887 million euros

- Development and supply of technological solutions for the energy transition and deep tech markets

(a) Published data.

INNOVATION AT THE HEART OF THE STRATEGY



308 million euros

of Innovation spending in 2022 including **100 million** dedicated to climate solutions



350

new patents filed in 2022



400

innovation partnerships with academics, industrial partners and start-ups

A GLOBAL INNOVATION ECOSYSTEM



REGULAR AND SUSTAINED PERFORMANCE

Created in
1902

16.2%
2022 Group Operating Income Recurring/Revenue

REVENUE

(in million euros)



EPS ^(c)

(in euros)



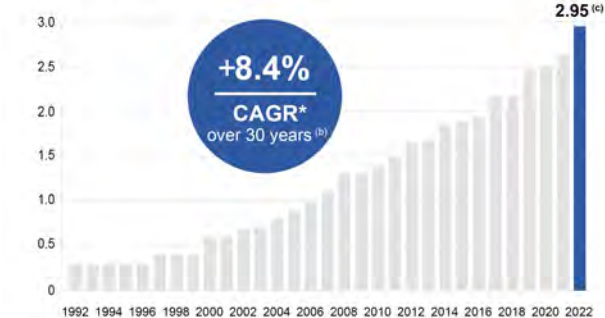
CASHFLOW

(in million euros)



DIVIDEND ^(c)

(in euros per share)



* Compound Annual Growth Rate.

(a) Adjusted for the 2-for-1 share split in 2007, for attributions of free shares and for a factor of 0.974 reflecting the value of the rights of the capital increase completed in October 2016.

(b) Calculated according to prevailing accounting rules over 30 years.

(c) Subject to the approval of shareholders during the General Meeting on May 3rd, 2023.

TSR

Total Shareholder Return
for a single registered share

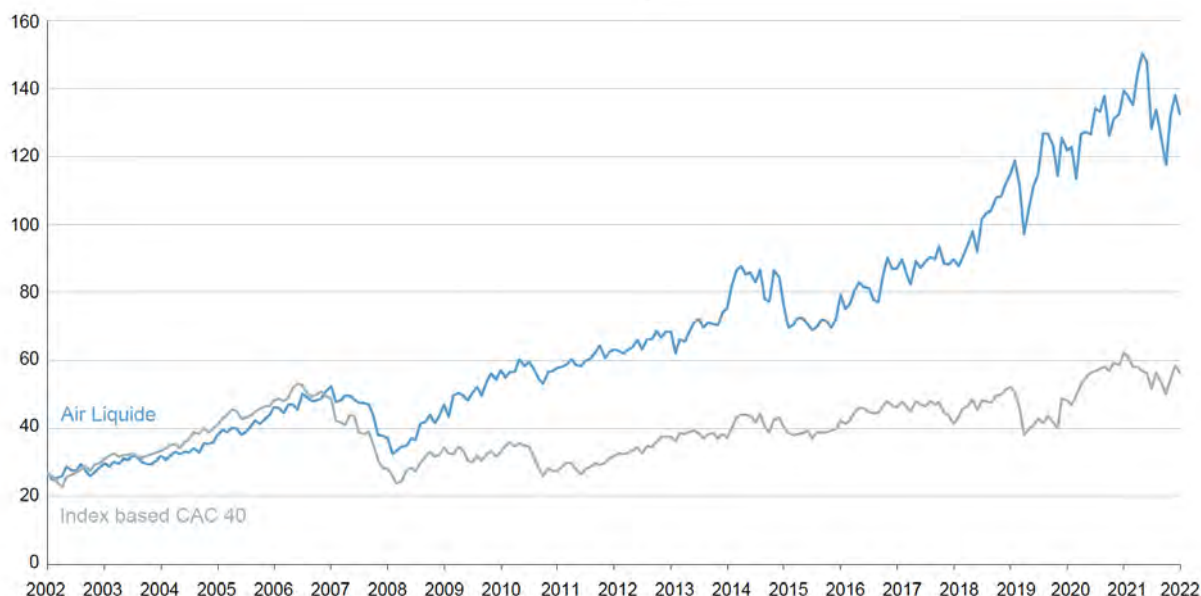
+11.5%
over 5 years ^(d)

+10.7%
over 10 years ^(e)

(d) At December 31, 2022, for an invested capital since December 31, 2017.

(e) At December 31, 2022, for an invested capital since December 31, 2012.

STOCK MARKET PERFORMANCE



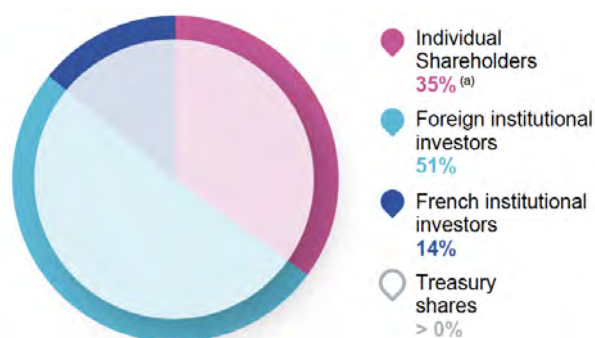
	2018	2019	2020	2021	2022
Market Capitalization at December 31 (in million euros)	46,571	59,706	63,589	72,872	69,305
Adjusted closing share price ^(a) (in euros)					
high	95.17	115.36	129.77	141.22	150.60
low	80.94	84.63	90.20	113.36	115.70
At December 31	89.63	114.73	122.05	139.38	132.40
Net earnings ^(b) – EPS (in euros)	4.07	4.31	4.68	4.94	5.28
Net Dividend per share ^(b) – DPS (in euros)	2.18	2.45	2.49	2.63	2.95 ^(c)
Pay-out ratio	55%	58%	55%	55%	58%
Dividend yield	2.4%	2.1%	2.0%	1.9%	2.2%
Ex-dividend date	May 20, 2019	May 11, 2020	May 17, 2021	May 16, 2022	May 15, 2023

(a) Adjusted following current Euronext regulation.

(b) Data adjusted for attribution of free shares and capital increase.

(c) Dividend 2022, subject to the approval of Shareholders during the General Meeting on May 3, 2023.

SHARE OWNERSHIP BREAKDOWN AT DECEMBER 31, 2022



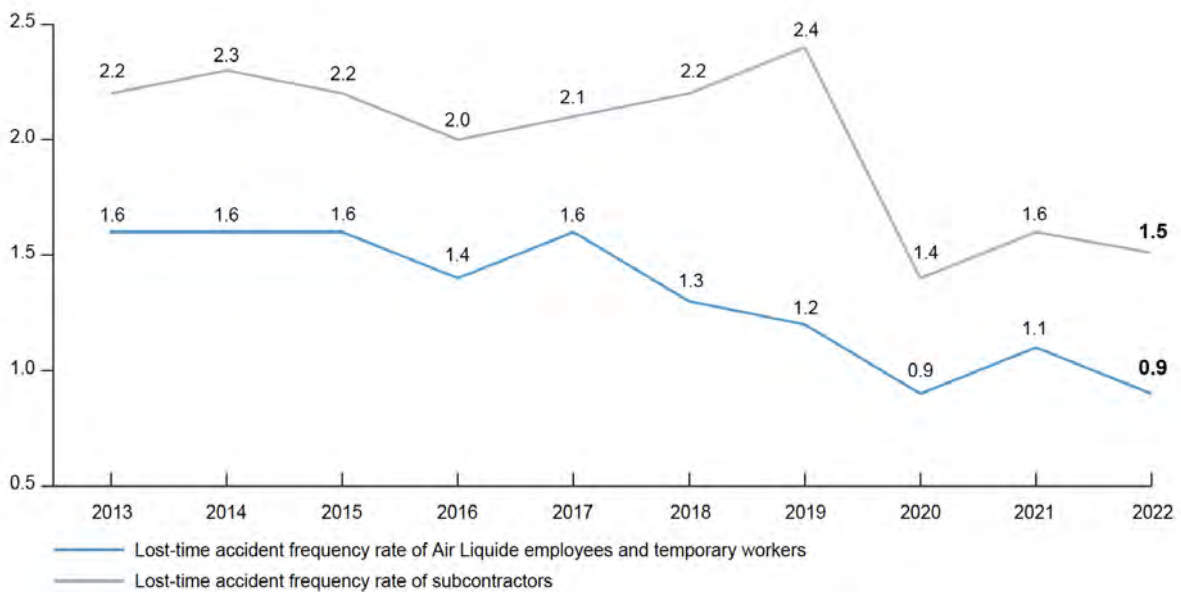
(a) Part of the increase in the proportion of capital held by individual Shareholders between the end of 2021 (33%) and the end of 2022 (35%) is due to the change of the tool used to identify Shareholders in application of the European Shareholder Rights Directive (SRD2). The results obtained thus provide more precise information on the shareholding structure, in particular with regard to individual Shareholders abroad.



PREREQUISITES TO ACTION



LOST-TIME ACCIDENT FREQUENCY RATE OF AIR LIQUIDE EMPLOYEES AND SUBCONTRACTORS ^(a) ^(b)

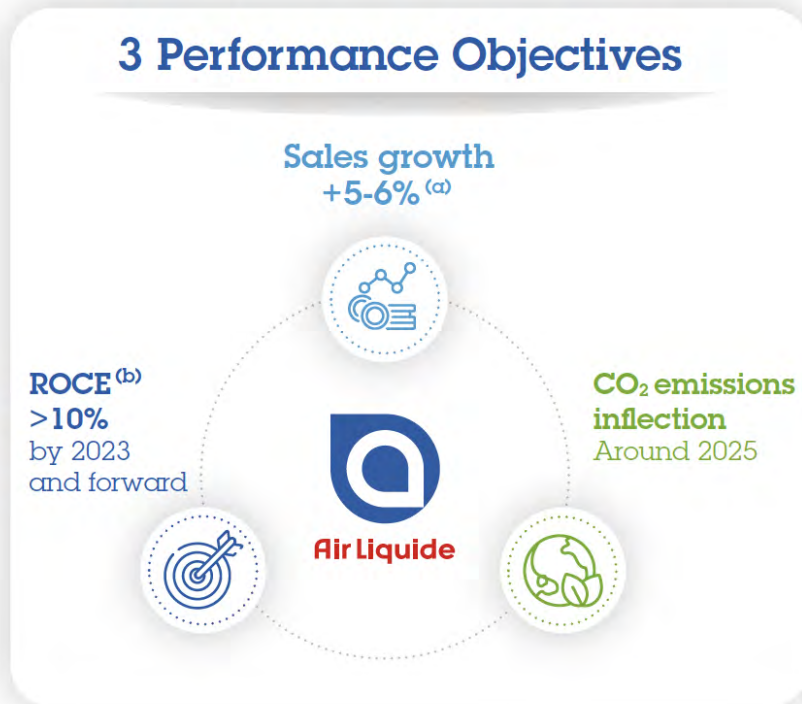


(a) Number of lost-time accidents with at least one lost day per million hours worked by Group employees.
 (b) Including Airgas since 2017.

STRATEGIC PLAN FOR 2025

ADVANCE // // // //

3 Performance Objectives



Financial performance

and beyond,



Decarbonizing the planet



Unlocking progress
via technologies

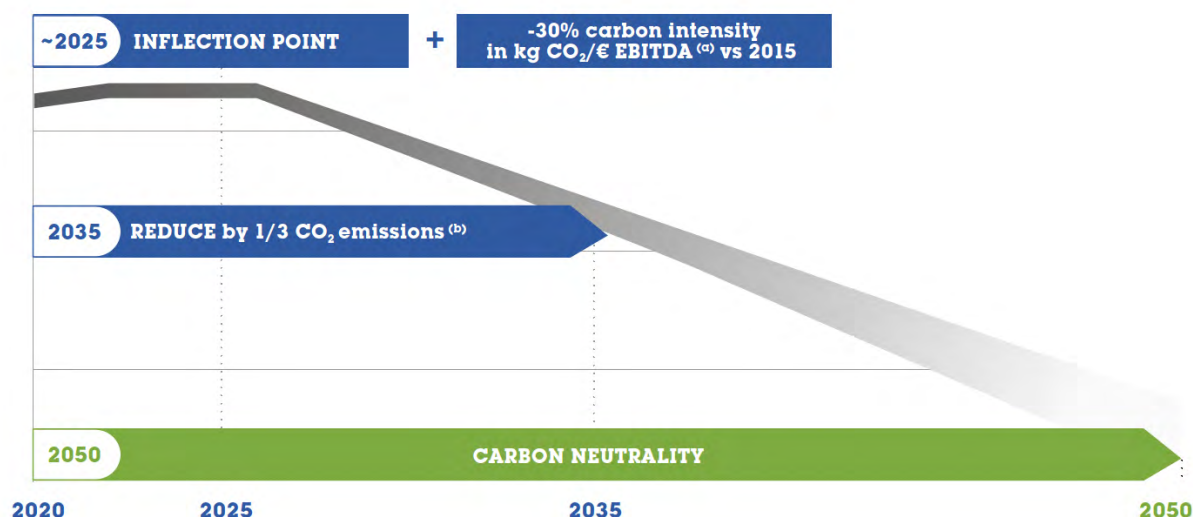


Acting for all

(a) Group Compound Annual Growth Rate.
(b) Recurring ROCE.

AMBITIOUS CLIMATE OBJECTIVES

TOWARDS CARBON NEUTRALITY BY 2050



Absolute scopes 1 + 2 emissions



Air Liquide's Scope 1 & 2 CO₂ emissions reduction target for 2035 has been **validated** by the Science Based Target (SBTi) initiative as being compliant and in line with climate science.

The Group was the first in its industry to obtain this validation from the SBTi^(c).

In 2022, the Group **scopes 1 and 2 CO₂ emissions**^(b) remained **stable for the 2nd consecutive year**.

The Group's **carbon intensity**^(a) stood at **5.5** a **-25%** decrease compared to 2015.

(a) In kg CO₂-equivalent/euro of operating income before depreciation and amortization and excluding IFRS 16 at 2015 exchange rates on Scopes 1 and 2 of greenhouse gas emissions on a "market-based" methodology (see methodology for calculating scopes in paragraph 2.2.4 of the Annual Reporting section of chapter 5, pages 426 and 427, as well as reconciliation in the Performance Indicators paragraph of chapter 1, page 61).

(b) In tonnes of CO₂-equivalent of Scopes 1 and 2, on a "market-based" methodology (see methodology for calculating scopes in paragraph 2.2.4 of the Annual reporting section of chapter 5, pages 426 and 427), restated to take into account over a full year from 2020 and each subsequent year, the emissions of the assets which correspond to changes in scope (upwards and downwards) and which have a significant impact on CO₂ emissions.

(c) See page 357.

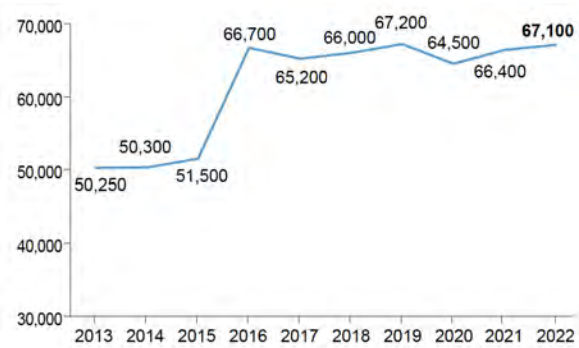
A STRENGTHENED DIALOG WITH STAKEHOLDERS

EMPLOYEES

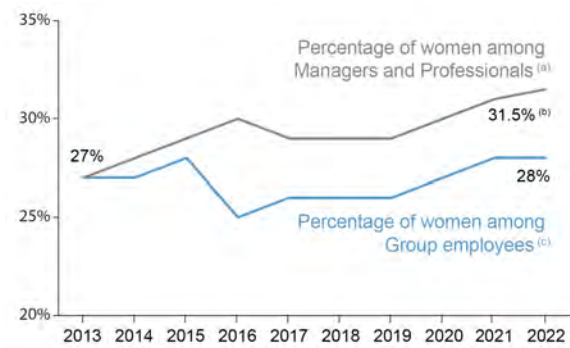
Objectives and KPIs

Increase the number of women among managers and professionals to **35%** by 2025

GROUP HEADCOUNT SINCE 2013



CHANGE IN THE PROPORTION OF WOMEN IN THE GROUP SINCE 2013



CUSTOMERS

250,000
customer/patient feedbacks collected since 2017

89%
satisfied or very satisfied Air Liquide customers (d)



Several hundreds of employees involved

69 new projects in 2022 benefiting tens of thousands of people

(a) Including Airgas since 2017.
 (b) The share of women among "Managers and Professionals" is rounded off in increments of 0.5%.
 (c) Including Airgas since 2016.
 (d) Based on customer satisfaction survey feedback (92% in 2021).



A COMPANY REWARDED FOR ITS EXTRA-FINANCIAL PERFORMANCE



CDP

Air Liquide remained a Level A leader in its category, scoring an A- on both Climate and Water performance.

S&P Dow Jones Indices

A Division of S&P Global

S&P 100

Air Liquide is now included in the DJSI Europe Index in recognition of its commitment to social and environmental responsibility.



FTSE4Good

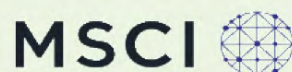
FTSE

Air Liquide remains a constituent of the FTSE4Good index series in 2022.



Ecovadis

For the sixth consecutive year, Air Liquide has won the Gold Evoadis Sustainability medal, ranking in the top 3%.



MSCI

Air Liquide has maintained its A rating, ranking in the top 22% of companies in terms of social responsibility.



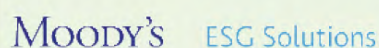
ISS

Air Liquide ranks in the top 10% of companies in the running, earning ISS "Prime" status.



Chemscore

Air Liquide ranks #4 out of 54 of the world's leading companies in the chemical sector for responsibly managing the environmental impact of its product portfolio.



Moody's ESG Solutions

Air Liquide ranked in the top 3% of assessed companies.



Sustainalytics

Recognized as "ESG Industry Top Rated", Air Liquide received a "low risk" rating.

Ratings obtained in 2022.



1

Integrated report

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HISTORY OF THE AIR LIQUIDE GROUP

Air Liquide, a world leader in gases, technologies and services for industry and health, has been building its leadership since 1902.

1902-1960

ORIGIN

Air Liquide was born in 1902 from innovation and the encounter between two men: Georges Claude, inventor of an industrial process for the production of oxygen from liquid air, and Paul Delorme, a visionary entrepreneur.

FIRST INTERNATIONAL DEVELOPMENTS

Gas, by its very nature, is difficult to transport and thus local production is required. This was one of the reasons why Air Liquide set its sites internationally early on, building numerous production units abroad. Development was rapid in Europe (1906), Japan (1907), Canada (1911) and the United States (1916).

LISTING ON THE STOCK EXCHANGE

The critical role played by Shareholders became evident in the first years of the Company's development. Listed on the Paris Stock Exchange in 1913, the share celebrated its hundredth year of listing in 2013. During these 100 years, Air Liquide has endeavored to forge a strong and privileged relationship with its Shareholders based on exceptional stock market performance, with an average annual increase in its share price of +11.9%.

REVOLUTIONARY DISTRIBUTION METHODS

In the 1950' Air Liquide put in place new ways to distribute industrial gases.

Storing gas in liquid form in cryogenic tanks allows vast quantities to be transported by road or rail within a radius of approximately 200-250 km from the production site.

By delivering gas to several customers through pipelines, Air Liquide adopted a network strategy for the first time, linking its gas production units to one another. The Group increased its production capacity to meet soaring demand from large industries: firstly, for oxygen in the steel industry, and secondly, for nitrogen in chemicals. This marked the start-up of the Large Industries business.

1960-2000

SPACE INDUSTRY

Convinced of the industrial potential of cryogenics, Jean Delorme, Chairman & CEO of Air Liquide, decided to create a research center dedicated to these technologies. This center was founded in 1962 near Grenoble in France. The first applications were rapidly integrated in the space industry and ever since Air Liquide has been a key partner of the space adventure.

A TRADITION OF INVENTIONS

The Claude Delorme Research Center, located on the Saclay plateau and now called the Innovation Campus Paris, was created in 1970. The research center's work is focused on enhancing gas production technologies and their applications. It is evidence of the Group's desire to better understand the industrial processes of its customers and develop new gas applications to better satisfy their requirements. Today, the Group also has Innovation Campuses in Europe (France, Germany), North America (USA) and Asia (China, Japan).

A NEW MARKET: ELECTRONICS

In Japan, the Group began in 1985 to supply ultra-high purity gases to the semiconductor industry: this involves carrier gases, mainly nitrogen, used to transport the specialty gases and keep the chip production tools inert, and specialty gases that are used directly in the manufacturing of semiconductors. In 1987, Air Liquide inaugurated the Tsukuba Research Center in Japan, which is dedicated to the electronics industry.

MAJOR ACQUISITION

The Group acquired Big Three in the United States in 1986, a Large Industries business with a significant pipeline network along the Gulf Coast.

EXTENDED OFFERING: HYDROGEN AND STEAM

In addition to oxygen and nitrogen, Air Liquide extended its offering to hydrogen and steam in the 90s. To ensure the success of this new offering, the Group used its business model, which is behind the success of its air gas business, and deployed from the beginning a basin strategy based on a pipeline network, providing customers with flexibility, distribution reliability and service quality at the best price.

HEALTHCARE

Originally an oxygen supplier to hospitals, Air Liquide became a specialist in the healthcare sector. The Group launched its Home Healthcare business in the 1990' and set up a dedicated network of specialist teams. Medical gases were progressively classified as drugs and manufacturers were required to file market authorizations. The Group also launched research programs in therapeutic gases, used for resuscitation and pain relief.

2000-2020

INTERNATIONAL EXPANSION

The Group invested massively in China in the early 2000s; the country has been a major growth market for industrial gases and Air Liquide entered into numerous air gas contracts.

The Group acquired part of Messer Griesheim's activities in Germany, the United Kingdom and the United States.

ORGANIZATION BY BUSINESS LINE

The Air Liquide growth drivers for the coming decades are based on changing lifestyles: industrial growth of developing economies, increasing energy needs and environmental challenges, healthcare and high technology. To capture this growth, the Group created a new organizational structure based on four World Business Lines. They combine the technical and operational expertise which are specific to each of the businesses of the Group – Large Industries, Industrial Merchant, Healthcare and Electronics – and centralize the specific market expertise.

Conscious of the strategic dimension of Engineering & Construction capabilities, the Group acquired Lurgi in 2007. This company provides Air Liquide with major proprietary technologies, notably hydrogen and carbon monoxide production units, adding to the Group's historical competencies in cryogenics.

RESILIENCE IN AN UNPRECEDENTED CRISIS

Affected by a global economic crisis of unprecedented magnitude in 2008 and 2009, the Group focused its efforts on the management of its cash, costs, and investments (capital expenditures). Having tested the solidity of its long-term contracts, Air Liquide demonstrated the relevance and resilience of its business model. In a context of global recession, the Group showed itself to be an exception, posting a stable net profit while preserving the strength of its balance sheet.

INNOVATION AND HYDROGEN

Innovation is central to Air Liquide's strategy. In 2013, Air Liquide launched two initiatives to promote open innovation: i-Lab (innovation Lab) and ALIAD, the Group's capital venture entity to take minority investments in innovative technology start-ups. In 2014, the Group decided on new investments such as the modernization of the Research Center near Versailles, on the Saclay plateau, the creation of a center for the development and industrialization of gas cylinders for industry and healthcare, and the launch of a technical center of excellence for cryogenic production technologies.

In addition, on a worldwide scale, Air Liquide actively contributes to the development of the hydrogen energy activity by supporting automotive manufacturers launching Fuel Cell Electric Vehicles on the market. Air Liquide contributes to the construction of hydrogen refueling stations (United States, Japan, France, Germany, Belgium, Denmark, the Netherlands, Korea, China...).

AIRGAS ACQUISITION BY AIR LIQUIDE AND NEOS PROGRAM

On May 23, 2016, Air Liquide completed the acquisition of the American company Airgas and took a new dimension. This acquisition was complementary to the Group's businesses in the United States and enabled Air Liquide to be present across all market segments both upstream of and downstream to the US market; this integration has created significant value.

In addition to the 300 million US dollars of synergies targeted by the Group through this acquisition, Air Liquide believes that the Airgas model, in terms of products, digitization of businesses, and business model, may be applied outside the United States.

With this acquisition, Air Liquide strengthens its position in the United States, the largest industrial gas market worldwide. This market also enjoys the strongest growth among advanced economies.

Following this acquisition Air Liquide published its new mid-term Company program, NEOS, on July 6, 2016. Its strategy for profitable growth over the long term is that of a customer-centric transformation. It is based on operational excellence and the quality of its investments, on open innovation and the network organization already implemented by the Group worldwide.

CREATION OF THE GLOBAL MARKETS & TECHNOLOGIES BUSINESS

To step up the development of offerings in new markets, the Group created in 2016 the Global Markets & Technologies business, responsible for developing new activities in the field of energy transition and deep tech, by leveraging technologies.

REFOCUSING ON GAS & SERVICES BUSINESSES

Following the divestiture of its Aqua Lung (diving) and Air Liquide Welding (welding) subsidiaries in 2017, Air Liquide focused on its Gas & Services businesses. After these divestitures, the share of Gas & Services revenue in Group sales increased from 90% in 2015 to 96% in 2018.

ENERGY TRANSITION AND CLIMATE OBJECTIVES

For many years now, Air Liquide has been committed to sustainable growth aimed, in particular, at limiting its CO₂ emissions and those of its customers. On November 30, 2018, Air Liquide announced its climate objectives, in particular a 30% reduction in its carbon intensity between 2015 and 2025, with a global approach that includes its assets, its customers, and its ecosystems. These objectives are the most ambitious in the sector and are in line with the NEOS company program. In this respect, the Global Markets & Technologies activity is stepping up sales to energy transition-related markets, driven by the biomethane sector and the first developments in the hydrogen mobility

FINALIZATION OF THE INTEGRATION OF AIRGAS AND STRENGTHENING OF THE GROUP'S EFFICIENCY PROGRAM

At the beginning of 2019, Air Liquide reached its target of 300 million US dollars in synergies, thanks to the integration of Airgas, more than a year before initially planned. With the integration complete, Airgas joined the Group's efficiency program and contributes to increasing the annual target for efficiencies. The Group efficiencies target was initially set at 300 million euros and was revised up, to more than 400 million euros, as of 2019. Moreover, a program aimed at promoting the sharing of the Airgas model has allowed close to 100 Group managers to immerse themselves in Airgas operations, and to step up the sharing of its best practices with other Group regions.

INCREASING IMPORTANCE OF NEW HYDROGEN MARKETS

In 2019, Air Liquide announced the construction in Canada of the largest Proton Exchange Membrane (PEM) electrolyzer in the world, aimed at producing hydrogen using hydro-power for industry and mobility usages. The Group invested in a hydrogen production and liquefaction unit for the west coast of the United States and worked with its Steel customers to decarbonize steel production using hydrogen.

2020-2022

MOBILIZATION OF THE GROUP AGAINST COVID-19

The Healthcare teams were highly mobilized to cope with the increasing demand for medical oxygen, supply equipment such as ventilators for hospitals, ensure stabilized patients can return home and guarantee chronic patients are continually monitored.

In a context of global health and economic crisis, the Group has once again proven its resilience. This crisis has also highlighted the contribution of the Group's activities to society as well as the commitment of its employees.

ACT FOR A SUSTAINABLE FUTURE

In March 2021, the Group strengthened all of its sustainable development goals by detailing them around three axes.

First, to ACT for a low-carbon society, in line with the Paris Agreement, by setting a target of carbon neutrality by 2050, with two major intermediate steps: the start of the reduction of its CO₂

emissions in absolute value around 2025 and a -33% decrease in its CO₂ emissions from Scopes 1 and 2 by 2035 compared to 2020. Air Liquide acted for climate in 2021, by initiating projects and partnerships for the decarbonization of industrial and mobility activities, and by announcing its participation in the largest fund dedicated to clean hydrogen infrastructure. The Group also acquired Sasol air separation units in South Africa and a TotalEnergies steam methane reformer in France while committing to a very significant decrease of their CO₂ emissions.

Second, CARE for patients by improving the quality of life of patients with chronic diseases in mature economies and facilitating access to medical oxygen in low- and middle-income countries. Already in place in Senegal, the initiative allows access to medical oxygen to rural communities and its deployment has started in South Africa.

And third, TRUST as the base to engage with employees and to build the best-in-class governance.

LAUNCH OF THE NEW STRATEGIC PLAN: ADVANCE

In March 2022, Air Liquide presented ADVANCE (see page 37), its new strategic plan for 2025. It placed sustainable development at the heart of its strategy and combined financial and extra-financial performance. With a strong business model which has proven its resilience, with its innovation capacity and its technological know-how, the Group is particularly well positioned to continue its growth trajectory while contributing to respond efficiently to major economic, environmental and societal challenges.

BUSINESS MODEL

1. Prerequisites to action: safety, ethics and the respect of Human Rights



Further information on the prerequisites for action is available in:

- Vigilance Plan (chapter 2): management of safety and Human Rights risks (pages 99 to 114);
- The Extra-financial Performance Declaration (chapter 5): treatment of safety and ethical risks and description of Air Liquide’s Human Rights approach (pages 346 to 348 and 387 to 388).

2. Description of activities

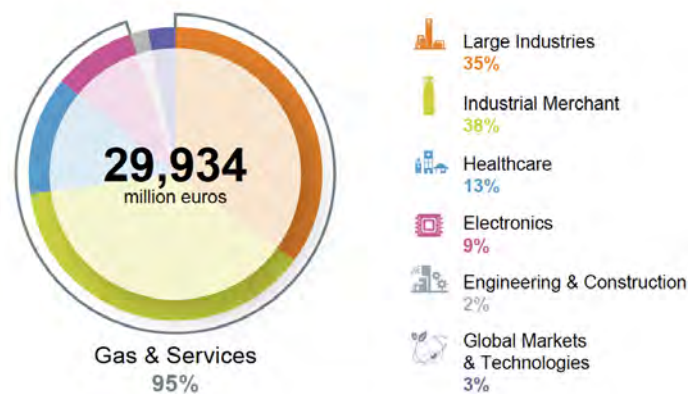
The Group classifies its activities as follows: Gas & Services, Engineering & Construction, Global Markets & Technologies, and all serve one unique business, that of industrial gases. The four business lines comprising the Gas & Services activities are closely tied by a strong industrial mindset where proximity is key. The diagram on page 23 illustrates the sharing of production or distribution assets between the different business lines for a given geographic region. This efficient industrial network and its proximity with its customers allow Air Liquide to:

- improve reliability;
- optimize energy consumption, costs and logistics flow;

- anticipate customers' needs;
- understand changes in the markets;
- and offer innovative solutions.

The synergies enjoyed by all of the Group's businesses are not limited to the industrial aspect, but also include scientific and technological expertise, the innovation approach, as well as Human Resources and financial management. The strong integration of the various World Business Lines thus allows the Group to create synergies, become stronger and to grow while creating long-term value.

2022 GROUP REVENUE BY ACTIVITY



2.1. GAS & SERVICES

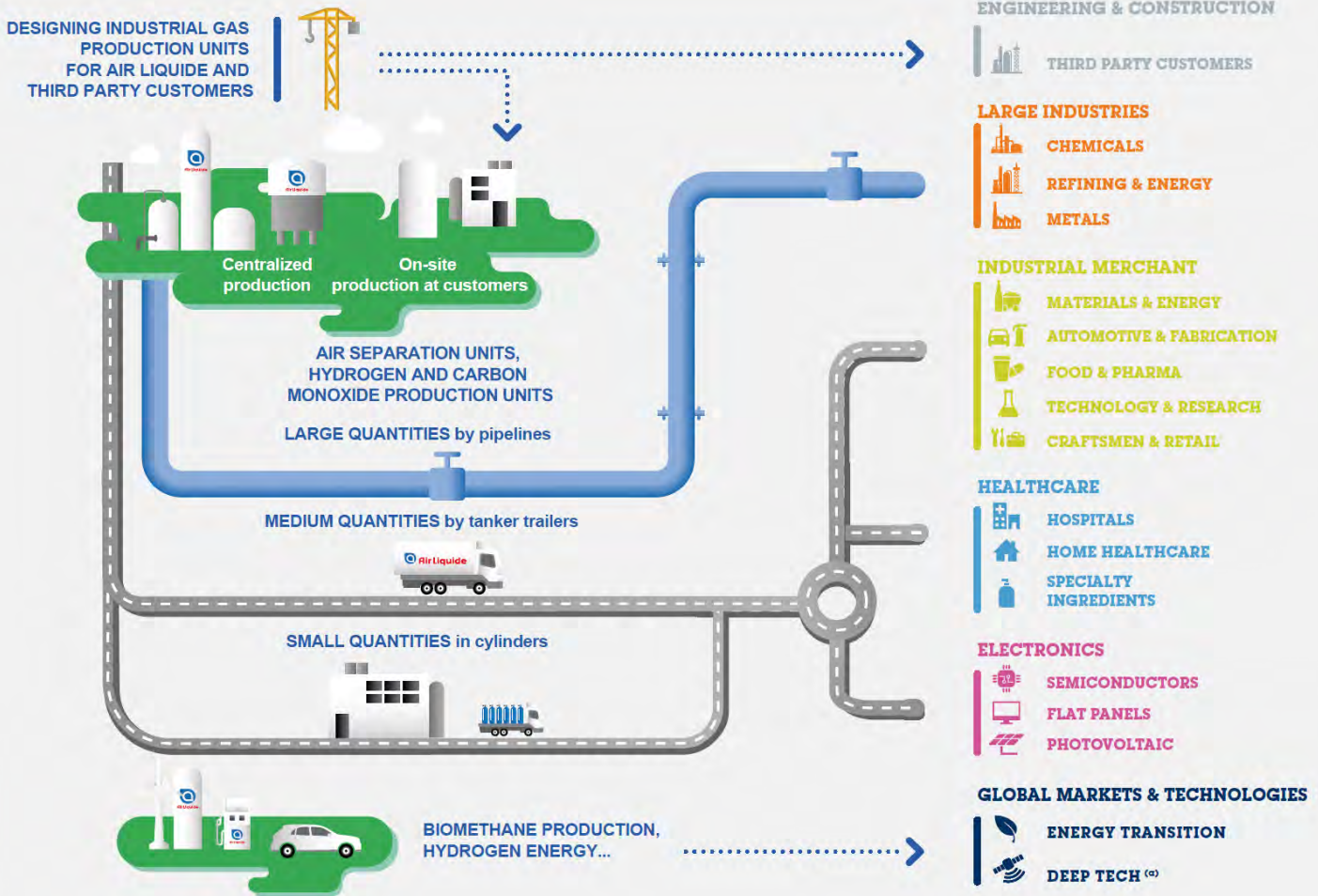


The Gas & Services businesses include four World Business Lines to better support changes and meet the needs of the various markets: Large Industries, Industrial Merchant, Healthcare, and Electronics.

Gas supply relies on local production in order to limit transport costs. Therefore, Air Liquide gas production units are located throughout the world and can supply many types of customers and industries with the relevant volumes and services required. Air Liquide's structure is made up of a base, in Paris, and four hubs: Americas, Europe, Asia Pacific and Middle East and Africa. These hubs draw on the Group's expertise and presence in these geographic regions.

- **Large Industries** supplies industrial gases by operating major production units. It serves customers in the metals, chemicals, refining and energy sectors where high gas volumes call for a dedicated plant or the development of a pipeline network. Large Industries also supplies the Group's other business lines with gases which are then packaged and delivered to their respective customers.

- **Industrial Merchant** supplies a wide range of different gases, application equipment and associated services. It serves industries and professionals that require smaller quantities than Large Industries' customers. Gas can be distributed in bulk, in liquid form, or in cylinders, in gaseous form, for smaller quantities. Finally, small production units can be installed locally for customers with larger gas needs, or in remote areas.
- **Healthcare** supplies medical gases, equipment and services to hospitals and also directly to patients in their homes. It also produces and distributes healthcare specialty ingredients for the cosmetics, pharmaceutical, vaccine and nutrition markets.
- **Electronics** supplies gases, materials (complex molecules) used in manufacturing processes, as well as equipment and services mainly used for the production of semiconductors, but also flat screens and photovoltaic panels.



(a) Disruptive technologies based on scientific breakthroughs of such a nature as to change the modes of design and production.

The Strength of Air Liquide's model

In Large Industries, the supply of gas is contracted for a duration of 15 years, or more for specific projects, and includes take-or-pay clauses which guarantee a minimum level of revenue.

Underlying trends for the Healthcare business (longer life expectancy, more sedentary lifestyles, urbanization) ensure growth in demand which is decorrelated from economic cycles.

Industrial Merchant benefits from the broad diversity of its markets, customers, and regions which is the result of strategic targeting and which reinforces the resilience of the business line.

The development of the semiconductor industry with its numerous digital applications is the main source of sales growth in Electronics, an industry presenting a strong momentum. The Group's capacity to innovate enables it to continuously improve its current offerings by integrating new technologies and new ways of working to boost operational excellence. Air Liquide therefore draws on its internal and external innovation ecosystems to develop differentiating solutions for its customers and patients and open up new markets. Innovation contributes to the Group's sustainable growth.

In addition to the Gas & Services businesses, Global Markets & Technologies help place Air Liquide in a pioneering position in new markets and new business models relating to energy transition and deep tech, thus accelerating the learning curve on

new social and environmental challenges, and opening up key opportunities for future growth.

Finally, the Engineering & Construction business line is responsible for the design and construction of plants and equipment to meet the various needs of the Group's business lines and third-party customers. Through its Engineering & Construction business line, the Group cultivates, shares and passes on its expertise from one generation to the next, ensuring both the continuity of its know-how and its continuous improvement thanks to the permanent integration of the latest technological advances and their adaptation to new markets.

The solutions offered by the business lines to sustainable development, of today or the future, especially in the energy transition domain, reinforce the Group growth and resilience.

Moreover, through its various World Business Lines, the Group serves more than 3.9 million customers and patients in a variety of industries and across a wide range of regions, which provides high resistance to economic cycles. These characteristics, which are inherent to the industrial and healthcare gas business, reinforce the strength of the business model.



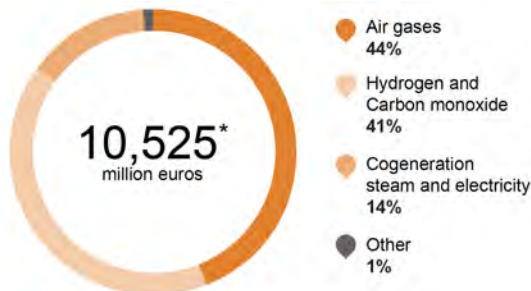
1. BUSINESS OVERVIEW, BUSINESS MODEL AND INDUSTRIAL PROCESSES

a. Business overview

The Large Industries business line supplies gas and energy solutions to customers in the metals, chemicals, refining and energy industries, which are essential for their own core businesses, to improve process efficiency and to make their plants more environmentally friendly. The Large Industries business line provides oxygen, nitrogen, argon, hydrogen and carbon monoxide through its plants and its pipeline network. The Group also operates cogeneration plants to supply customers with steam and electricity.

The world leader in this sector, Air Liquide benefits from dedicated in-house development and engineering teams, differentiating proprietary technologies and rigorous processes for selecting investments and carrying out projects. The largest Large Industries customers are looked after by key account managers who have in-depth knowledge of customers' businesses, as well as of their projects, industrial processes and global structure. This allows Large Industries to maintain close contact with its customers, thus improving the Group's responsiveness and competitiveness in terms of meeting their needs.

2022 LARGE INDUSTRIES REVENUE BY PRODUCT



* 37% of Gas & Services revenue.

b. Business model

The supply of gas is generally contracted for 15 years. For certain projects, this can be extended to 20 years and beyond. The signing of new contracts for new industrial customers' sites is a strong predictor of future growth. Within these contracts, the Group guarantees long-term service continuity and a high level of reliability with respect to the gas supply via a high-performing industrial solution. In return, long-term gas supply contracts include guaranteed minimum volumes through take-or-pay clauses, as well as the indexation to variable costs (mainly for electricity and natural gas) and to inflation.

The use of industrial gases is critical for the various industrial processes of Large Industries' customers. As any discontinuity in supply translates into an interruption of the customer's production operations, supply reliability and safety are crucial. However, although vital, gas supply generally represents a very small part of total production cost for the customer.

The Large Industries are at the heart of the energy transition, which creates major growth opportunities with the supply of low-carbon gases as well as new modes of process and solutions for the customers' CO₂ emissions reduction.

c. Large Industries industrial processes

The raw materials necessary for the production of industrial gases vary according to the type of gas and the location of the production unit. The production of oxygen and nitrogen requires air and a large quantity of electricity. Cogeneration units consume natural gas and water. Hydrogen and carbon monoxide production units mainly consume natural gas and little electricity. In 2021, the Group also inaugurated the world's largest electrolysis facility in Canada that uses water and renewable hydroelectricity to produce low-carbon hydrogen. The energy and capital intensity of these industrial processes is generally high.

Air gases production (ASU: Air Separation Unit)

An Air Separation Unit (ASU) compresses, liquefies and distills air in order to separate it into its different components: 78% nitrogen, 21% oxygen, 1% argon and noble gases (neon, krypton and xenon). Only certain large ASUs can produce noble gases. The ASUs do not emit directly CO₂ but electricity consumption is significant. A simplified diagram of an ASU operation is presented on page 25.

Hydrogen and carbon monoxide production through steam reforming (SMR: Steam Methane Reformer)

By steam reforming natural gas, an SMR produces hydrogen and carbon monoxide. The most significant raw material is natural gas; electricity and water consumption is modest. A simplified diagram of a hydrogen unit's operation is presented on page 25. Air Liquide has developed a portfolio of CO₂ capture solutions adapted to SMR, allowing to very significantly reduce their greenhouse gas emissions.

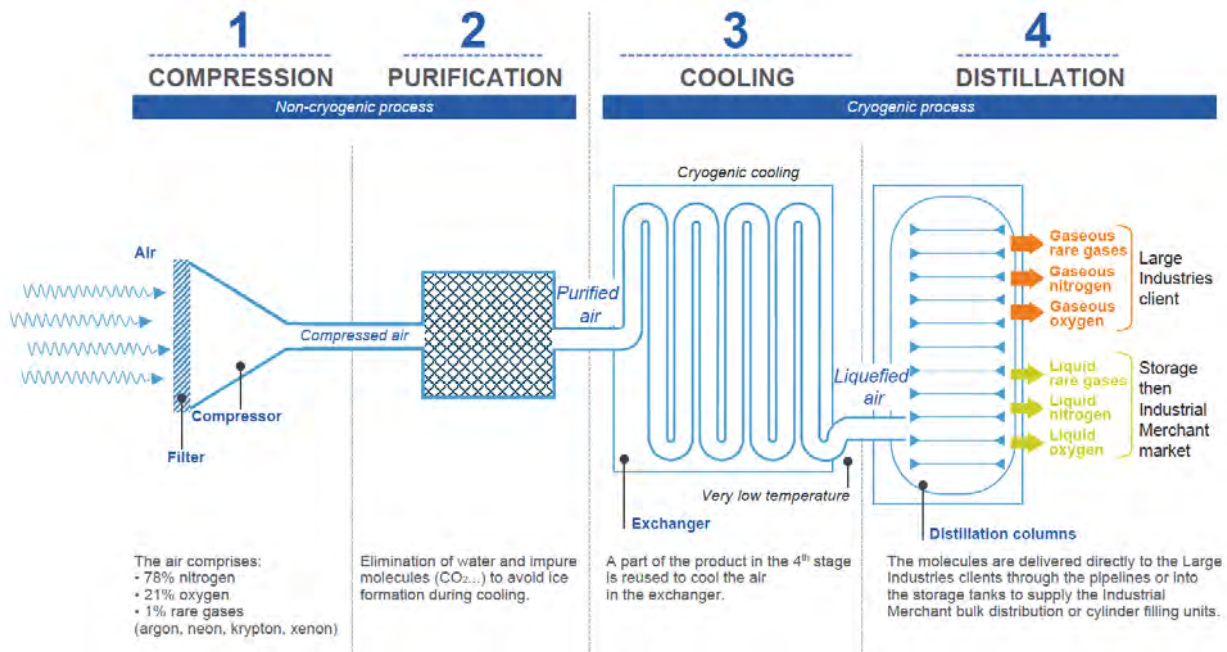
Hydrogen production through electrolysis

Hydrogen production through electrolysis is based on the dissociation of water molecules (H₂O) using electricity, to extract hydrogen and oxygen molecules. This process produces hydrogen without using or emitting carbon-based molecules. It can be used to produce low-carbon hydrogen for industry and mobility, as well as for energy storage. A simplified diagram of hydrogen production through electrolysis is presented on page 26.

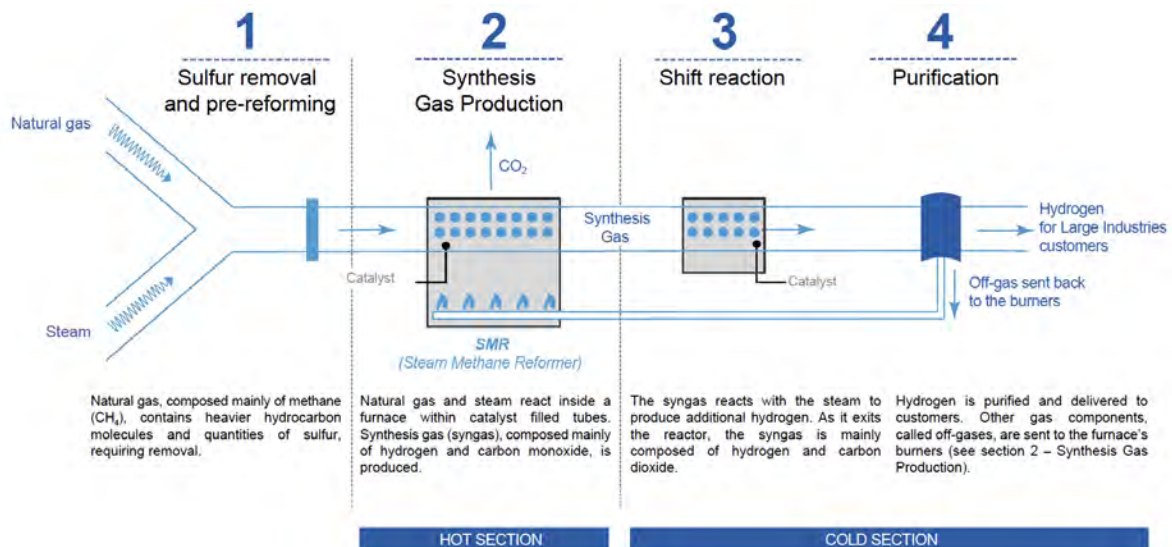
Cogeneration

Cogeneration consists of simultaneously and efficiently producing electricity and steam generally by consuming natural gas and water. The electricity is used by an Air Liquide plant or sold on the local network. The steam is required for certain industrial processes. This type of units directly emits CO₂.

SIMPLIFIED DIAGRAM OF THE OPERATION OF AN AIR SEPARATION UNIT



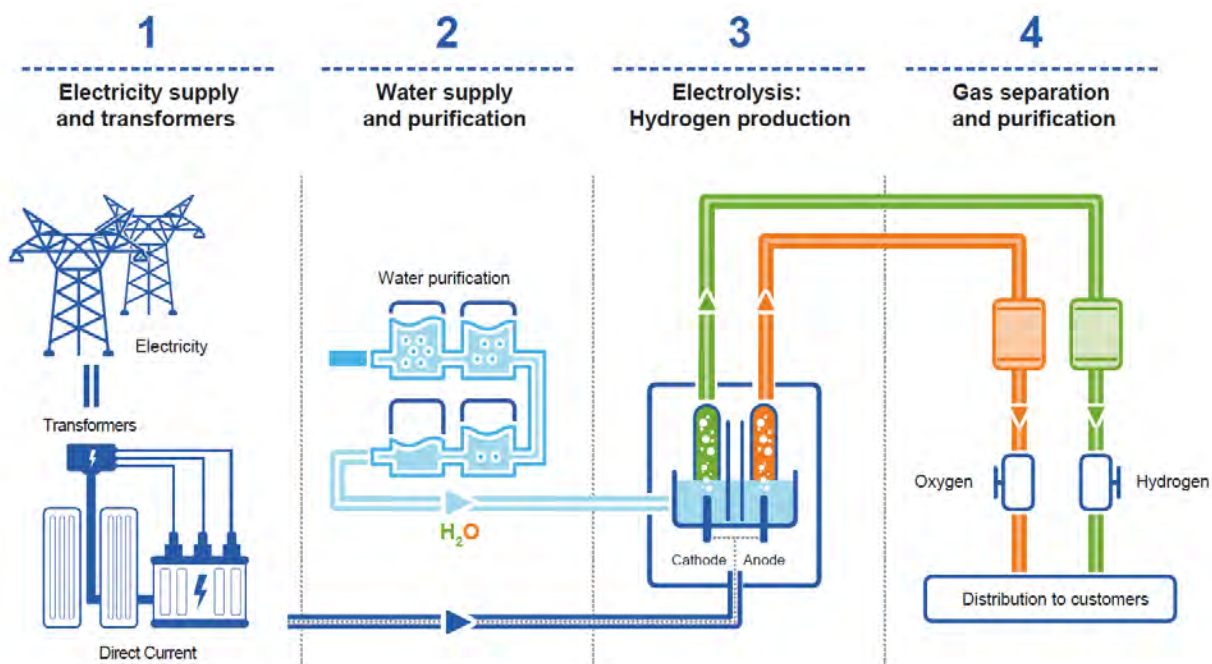
SIMPLIFIED DIAGRAM OF THE OPERATION OF A REFORMING HYDROGEN PRODUCTION UNIT



GAS SEPARATION TECHNOLOGIES FOR THE CAPTURE AND USE OF CO₂

Air Liquide's portfolio of technologies also includes separation and gas capture technologies. Based on cryogenic distillation, adsorption, absorption, or separation membranes, these technologies are used to capture the carbon dioxide generated by Air Liquide's industrial processes and those of its customers. Air Liquide proposes to its customers CO₂ capture as a service on a typical Large Industries contract basis. These solutions can be installed, for example, at hydrogen production units, petrochemical facilities, or cement plants. Captured carbon dioxide is then permanently sequestered in a geological storage or used in the customer's processes, such as the treatment of alkaline water, or used by Industrial Merchant customers, to produce carbonated beverages, to package food in a protective atmosphere, or to prepare welding gas mixtures.

SIMPLIFIED DIAGRAM OF THE OPERATION OF AN ELECTROLYZER FOR HYDROGEN PRODUCTION



2. LARGE INDUSTRIES KEY FIGURES

- > 300 large air separation units;
- > 50 hydrogen and/or carbon monoxide production units;
- > 9,700 km of pipeline networks;
- > 15 cogeneration plants.

3. CUSTOMERS AND MARKETS

The **chemicals industry** uses mainly oxygen, hydrogen and carbon monoxide in its manufacturing processes, as well as nitrogen to inert its installations.

The **refining industry** requires hydrogen to desulfurize fuels and crack heavy hydrocarbons. The demand for hydrogen is growing steadily due to more stringent legislation aimed at reducing emissions and the use of increasingly heavier hydrocarbons in fuel production.

In the **metals industry**, Air Liquide supplies large volumes of oxygen to steel producers notably, the use of which improves their energy performance and reduces significantly their CO₂ emissions. The majority of new projects are currently located in developing economies. As part of Air Liquide's aim to offer solutions to its customers that will help them reduce their

emissions, the Group is also taking part in a pilot project, with one of its steelmaking customers, which consists of injecting hydrogen at large scale to partially replace pulverized coal in blast furnaces, thus reducing carbon dioxide emissions from the steel production process.

Numerous industries linked to energy or chemicals use large quantities of oxygen to transform coal, natural gas, or liquid hydrocarbons into syngas for the production of chemical products, synfuel, or electricity.

To meet customer requirements, the supply of large quantities of gas is critical. Air Liquide supplies its customers directly by pipelines from a dedicated plant or different plants linked by a network. Air Liquide has built its pipeline networks progressively over the last 40 years. With a total length of more than 9,700 kilometers (6,000 miles), these networks stretch, for example, across Northern Europe, from Rotterdam through to Dunkirk, and along the Gulf Coast in the United States from Lake Charles (Louisiana) to Corpus Christi (Texas) as well as along the Mississippi river in Louisiana. Many other mid-size local networks have also been built in other significant and fast-developing industrial basins in Germany, Italy, Singapore, and, more recently, China.



KEY POINTS

The **Large Industries** business line depends on long-term contracts (15 to 20 years) which include take-or-pay clauses, offer considerable visibility of future revenue and protection in the event of a significant fall in customer volume consumption (below the minimum take-or-pay level). Sales prices in Large Industries contracts are indexed, in particular, to energy and inflation costs. The long investment cycle and high capital intensity require a solid balance sheet. The signing of new contracts is a strong predictor of future growth.

Air Liquide is developing a pipeline network strategy in the industrial basins in order to provide customers with greater supply reliability while optimizing operating costs. This strategy allows to mutualize production assets and generate savings, notably on energy, on the overall Air Liquide network as well as for its customers.

By developing its capacity to deliver low-carbon industrial gases to its clients and other Group businesses, by allowing industrial processes decarbonization, and by offering carbon capture as a service, the Large Industries is crucial for the energy transition and the Group's decarbonization strategy.

Industrial Merchant

1. BUSINESS OVERVIEW, BUSINESS MODEL AND SUPPLY MODES

a. Business overview

The Industrial Merchant business line is, by its nature, a highly local business, which provides more than two millions customers with industrial gases, equipment, hardgoods, and associated services.

Industrial Merchant provides gas using the supply mode best adapted to customers' needs: either via a small on-site production unit for customers with major volume requirements, or in liquid form distributed by trucks for medium-scale quantities, or in cylinders for smaller volumes and use on construction sites. Around 95% of Industrial Merchant's customer base is small customers who favor simplicity, flexibility and quality of service: they mainly order cylinder gas and hardgoods.

The Industrial Merchant activity serves a wide variety of markets, often essential to life. It constantly invents new applications for its molecules that address the challenges of energy transition but also the challenges of new uses and markets and that contribute to improving the operational efficiency of its customers. The Industrial Merchant business manages a significant amount of data from the large number of assets used in operations along with the diversity of markets and customers. Digital transformation and data analysis, therefore, play a predominant role in improving operational efficiency, price management, and the quality of the services provided to the customers.

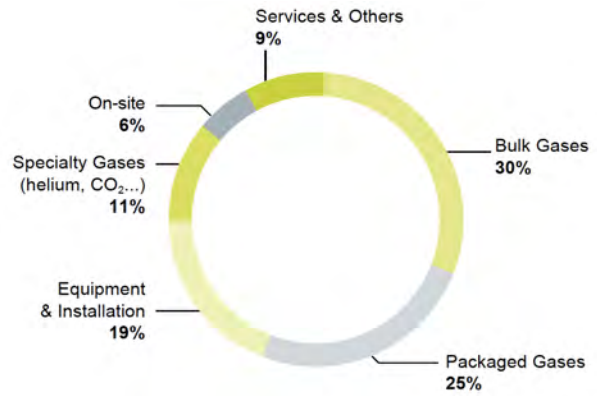
2022 INDUSTRIAL MERCHANT REVENUE BY END-MARKET



* 40% of Gas & Services revenue.

b. Business model

A large share of Industrial Merchant sales is covered by contracts with terms of up to five years for cylinders and liquid gas supply and up to 15 years for small on-site gas generators. These contracts generally include gas supply, the reliable and safe delivery of products and the provision by the Group of equipment at customers' sites, the provision of a service, as well as the indexation of the sales price to different variables such as inflation and energy prices. The provision of cylinders or tanks at customers' sites is covered by a fixed monthly fee. The wide range of markets, customers, and regions in which the Group is present reinforces the resilience of this business line.



The Industrial Merchant (IM) business line is integrated in the industrial basins and firmly **grounded in local economic life**. This local base is strengthened by economic constraints which limit the radius of gas distribution to some 250 kilometers around a production site. One of the strengths of Industrial Merchant is to be able to identify high-potential areas and establish a site by developing synergies with Large Industries' network of plants or by investing in dedicated units. While permeating the local economy, the Industrial Merchant business line has expanded its operations internationally in about 60 countries, thus strengthening the business line's resilience. This regional diversity is based on a strategy of targeted investments and the regular optimization of portfolios.

A permanent focus on geographic density within the industrial basins is a key success factor thanks to the synergies that this generates, in particular in terms of logistics. In addition to the business development of a basin, the acquisition of local distributors and their portfolio of customers also helps improve this density, in particular in markets that are still fairly fragmented such as the United States and China.

c. Supply methods

On page 29, the diagram shows the **different supply modes used in Industrial Merchant**. Strong **operational discipline** is applied across the value chain (supply, packaging, distribution) and is an essential part of Air Liquide's integrated model. Coupled with new digital tools including the IBO ("Integrated Bulk Operations"), this allows the Group to optimize the use of its resources in real-time (plants, trucks, energy, etc.) to improve the competitiveness of its products and services for customers and reduce its CO₂ emissions. Air Liquide's quest for continuous improvement helps ensure the safety of its employees, customers, and service providers and optimize their costs while offering a seamless customer experience.

2. INDUSTRIAL MERCHANT KEY FIGURES

- ~ 33,000 employees;
- ~ 20 million cylinders;
- ~ 10,000 trucks;
- ~ 53,000 cryogenic tanks installed on customers' sites;
- > 1,000 on-site generation units;
- ~ 1,500 filling centers and retail stores.

3. CUSTOMERS AND MARKETS

α. A customer-centric culture

Customers and markets served by Industrial Merchant are presented in the drawing on page 29. Industrial Merchant customers vary greatly in terms of size, business and needs, but their common ground is their desire for products and services which facilitate daily activities.

The Group's ambition to provide a seamless customer experience requires listening to customers' needs, providing a diversified and customized offering and an excellent quality of service. To further customer engagement, Air Liquide is working on the rationalization and simplification of its processes to continuously improve the level of its service, focusing on the reliability of its equipment and deliveries and thus the overall efficiency of its supply chain.

Optionality in terms of both product and service offerings as well as transactional channel is also a differentiating characteristic of the Industrial Merchant business line. Thanks in particular to the contributions of Airgas in terms of customer culture and excellence in operational service, Industrial Merchant continues to develop a multi-channel approach to sales which notably includes e-commerce and telesales to better support the uses of its customers.

A MULTI-CHANNEL SALES APPROACH



DATA AND DIGITAL WORKING FOR THE CUSTOMER AND IMPROVING GROUP PERFORMANCE

The **Industrial Merchant** Business Line manages a significant amount of data from the large number of assets used in operations and the diversity of markets and customers. Digital transformation and data analysis, therefore, play a predominant role in improving operational efficiency, the quality of the services provided to the customers, and new offerings. Thanks to this data analysis, the Industrial Merchant teams are able to drive the performance of operations in real-time and optimize price management in a fair and dynamical way depending on markets and costs. The digitalization of assets on customer sites also enables the uploading of utilization data, which is then analyzed to create new services, offerings, or business models.

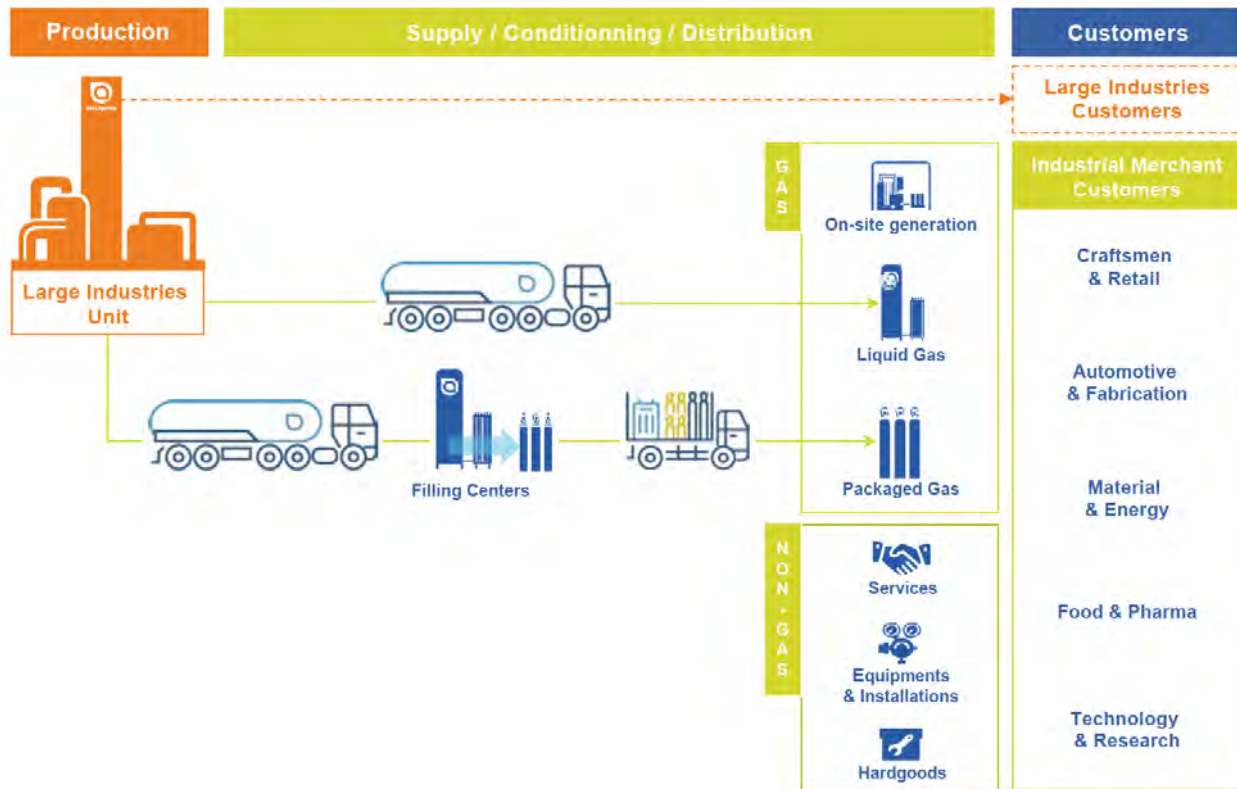
b. A strategic positioning on markets with optimized product portfolios

Thanks to their proximity to customers and the Group's presence in a large number of markets, the Industrial Merchant teams foster a large and in-depth knowledge of the latter and of their industrial processes. Moreover, Air Liquide collects a large amount of data from these markets and the economy in general. This allows the Group to identify major trends, assess growth prospects and anticipate future opportunities. By closely analyzing this market data and its value chains, the Group has developed a **selective**

approach and dynamic market management to focus its resources on areas of higher potential growth. The diversity of the markets, customers and geographical regions resulting from strategic targeting strengthens the resilience of the business line.

The level of profitability of the Industrial Merchant business line varies according to product and supply mode. **By optimizing this product mix**, the business increases its profitability, captures new volumes and diversifies its customer base.

SUPPLY MODES



CUSTOMER MARKETS

	Industrial Production			Consumer markets	
	Craftmen & Retail	Automotive & Fabrication	Technology & Research	Material & Energy	Food & Pharma
Description	Professionals and craftsmen, involved with metal fabrication, heating, construction and repair.	Small to large companies that transform primary materials (metal) into finished products or advanced fabrications.	Advanced technology industries (optoelectronics, electronics manufacturing, space), research centers and analytical labs.	Industries engaged in activities from the extraction of ores and oil to the transformation of raw materials into added-value products.	Companies engaged with food, beverage and pharmaceutical production and processing activities.
Market trends	Need for simple and flexible products and services. Ease of the customer experience.	Pressure on quality and prices of fabricated products. Development of lightweight materials (composites), new processes (additive manufacturing) and electrification.	Digitalization. Need for smarter products and services, more efficient and more reliable. New gas testing opportunities.	Need for increased productivity. Preservation of climate and natural resources.	Global growing and aging population drives demand.

KEY POINTS

The **Industrial Merchant** business line is, by its nature, a highly local business, which provides more than two million customers with industrial gases, equipment, hardgoods and associated services.

The diversity of markets, customers and regions is the result of strategic targeting and reinforces the resilience of the business line.

The balanced breakdown between markets related to industrial production and those more consumption-related, the fact that they are often related to sectors essential for the life, coupled with an Industrial Merchant business model which includes a share of fixed income from sales, strengthens the resilience of the business. Thus, about 50% of Industrial Merchant sales are not dependent on the local industrial production of the countries in which the Group is present.

Thanks to the proximity to their customers, in-depth knowledge of their industrial processes and innovation capabilities, Industrial Merchant teams and their experts in gas applications develop new product or services offerings which are a major growth and performance driver.



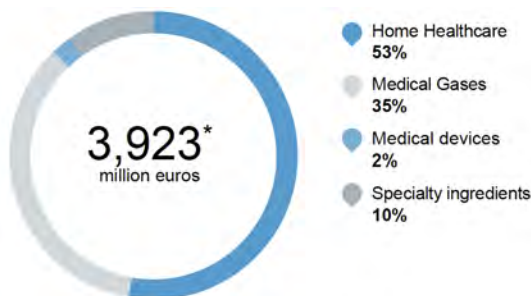
1. BUSINESS OVERVIEW AND BUSINESS MODEL

a. Business overview

The Healthcare business line provides medical gases, home healthcare services, medical equipment, and specialty ingredients. These products and services support patients along the continuum of care, from the hospital to their homes. The Group is committed, alongside patients, healthcare professionals, hospitals, and new places of care, to contributing to making the healthcare system more efficient. Air Liquide is one of the world leaders in this constantly changing business sector and is subject to stringent regulatory requirements as well as multiple stakeholders (patients, doctors, health authorities, and payers).

Actors and decision-makers in the health sector are faced with the double challenge of the increase in the number of patients with chronic diseases and the economic sustainability of health systems. Air Liquide's Healthcare activity intends to be the partner in the transformation of the healthcare sector and is committed to bringing ever more value to all stakeholders and thus cooperating in the collective resolution of this challenge. Value-Based Healthcare is defined as the benefits that matter to the patient relative to the costs of achieving those benefits. In concrete terms, this means for the Healthcare activity the development of a personalized support plan that meet the needs of each patient profile with the objective to make it possible to achieve the benefits that everyone expects to improve the quality of life. It is also a virtuous approach that allows the Group to effectively adapt its interventions while working to ensure the sustainability of healthcare systems. For medical gases and related services, the aim is to offer solutions that help healthcare professionals in their daily practice so that they can devote themselves fully to their medical mission with patients.

2022 HEALTHCARE REVENUE BY ACTIVITY



* 14% of Gas & Services revenue.

b. Business model

The Healthcare activity, in particular, the supply of medical gases to hospitals and other places of care, mainly relies on the gas production capacities of Large Industries and develops its own distribution logistics. Medical gases have a drug designation status which requires market authorization from the country's health authorities. They are subject to specific pharmaceutical traceability and are supplied in gas or liquid form by qualified personnel. The integration of the industrial and Healthcare activities has led to synergies and industrial efficiency.

2. HEALTHCARE KEY FIGURES

- ~16,400 employees;
- 35 countries worldwide;
- ~1,900,000 home healthcare patients;
- ~15,000 hospitals and clinics.

3. CUSTOMERS AND MARKETS

Over the last 20 years, Air Liquide has strengthened a leading healthcare role in Europe, Canada and Australia. The Group also has businesses in the United States (Medical Gases only), South America and certain Asian and African countries. It continues to grow in all regions, in particular accompanying the expansion of healthcare systems. As a result, some 70% of the Healthcare business line's sales are in Europe and more than 20% in the Americas.

The business line provides products and services in four areas:

- **Medical Gases and services:** Air Liquide supplies more than 15,000 hospitals and clinics around the world. Among the main medical gases and their areas of application, Air Liquide provides: medical oxygen for respiratory diseases and intensive care units; medical nitrous oxide, a mixture of oxygen and nitrous oxide O₂/N₂O for anesthesia/analgesia; and nitrogen monoxide for resuscitation.

Air Liquide ensures compliance with the strictest safety and quality standards through the installation and maintenance of medical gas distribution networks in hospitals and permanent inventory control.

Air Liquide's medical gases and services are provided to certain specialists in the community or to new care facilities outside of the hospital;

- **Home Healthcare:** Air Liquide cares for 1.9 million patients in their homes suffering from chronic diseases. Once the diagnosis and treatment are established by a doctor, the long-term treatment requires patient education, implementation of the therapy and its continuous support, and interventions by trained nurses or technicians in person or remotely thanks to the increased use of digital solutions.

Air Liquide has developed an offering beyond oxygen therapy and helps take care of patients suffering from chronic obstructive pulmonary disease, obstructive sleep apnea, chronic respiratory insufficiency, diabetes, pulmonary arterial hypertension, and Parkinson's disease, providing them with medical devices and associated services for long-term follow-up care.

Demographic and sociological factors such as an aging population and urbanization are contributing to the increase in the number of chronic diseases. Air Liquide's Home Healthcare business strives to meet these public health challenges as well as the growing constraints on health spending in advanced economies, by avoiding hospitalization and developing a home care offering using digital monitoring in particular. In developing economies, Home Healthcare is growing in areas where health systems are being introduced;

- **Specialty Ingredients:** for over 75 years, through its subsidiary Seppic, Air Liquide has designed and developed specialty ingredients for the healthcare sector, in particular adjuvants for vaccines, film-coating systems for the pharmaceutical industry as well as a complete range of eco-friendly thickeners, stabilizers, emulsifiers and active ingredients for the cosmetics market;
- **Medical Devices:** Air Liquide has been designing innovative medical devices for more than 40 years, in particular respirators, for intensive care, transportation and use at home along with equipment for the administration of medical gases and aerosol therapy.



KEY POINTS

The **Healthcare** business line produces and distributes services and medical gases for hospitals and other places of care and provides support and healthcare services for patients at home. It operates in a constantly changing landscape and a strict regulatory framework. Medical expertise, quality of healthcare services, operational excellence and digital technologies are essential criteria that help offset the pricing pressures of healthcare systems, particularly in advanced economies.

Faced with a health crisis, the Healthcare Business was mobilized and adapted to ensure critical supply of medical oxygen, equipment and services for hospitals and patients at home as well as for the rollout of the emergency plans in coordination with governments of concerned countries.

Air Liquide Healthcare has a unique position in that it is present along the continuum of care and connected to all stakeholders in the healthcare ecosystem (patients, healthcare professionals, hospitals, health authorities, payers) for the treatment of acute diseases (with the supply of medical gases and services in hospitals and other places of care), the treatment of chronic diseases (with Home Healthcare) and in prevention and well-being (with Specialty ingredients).

Underlying trends such as aging populations and the escalating need for care due to the increase in chronic diseases, as well as the continuing expansion of healthcare systems in developing economies, makes the Healthcare activity a major growth driver for the Group.



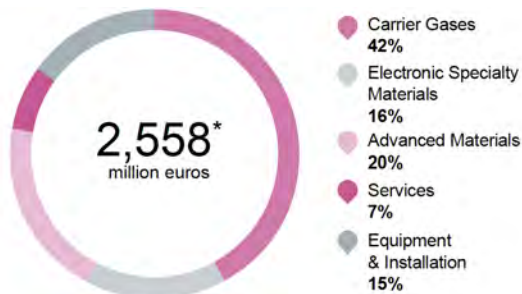
Electronics

1. BUSINESS OVERVIEW AND BUSINESS MODEL

a. Business overview

Air Liquide provides innovative solutions to the semiconductor, flat panel and photovoltaic markets. To do so, the Electronics business line leverages its expertise, global infrastructure and strategic proximity to key players in these sectors. Electronics customers products respond to increasingly challenging customer demands for improved mobility, connectivity, computing power and energy consumption. These technological advances are possible, thanks to the innovative materials and gases used in semiconductor production.

2022 ELECTRONICS REVENUE BY PRODUCT



* 9% of Gas & Services revenue.

b. Business model

Air Liquide's Electronics business is based near its customers' production facilities. Its business model is mainly based on long-term contracts for the supply of carrier gases, and constant innovation for the supply of new advanced materials that are necessary to meet the technological challenges of the sector's major players. The business line also supplies equipment for the distribution of gas and chemical products and installs them at its customers' facilities. The Electronics business line works on reducing greenhouse gas emissions associated with electricity consumption for the production of carrier gases and by providing customers with low environmental impact materials which are able to replace some of the more polluting materials currently in use.

2. ELECTRONICS KEY FIGURES

- ~4,600 employees;
- ~50,000 cylinders of specialty materials delivered each year;
- ~25,000 items of gas and chemical product distribution equipment installed.

3. CUSTOMERS AND MARKETS

The Electronics business line provides a global service to the sector's main players. It is present in Asia (~73%), the USA (~20%) and Europe (~7%). Air Liquide is the market leader in the Electronics business line.

Products and services supplied include:

- **Carrier Gases:** carrier gases (ultra-pure nitrogen, ultra-pure oxygen, argon, hydrogen and helium) supplied by on-site facilities, are intended for the transport of molecules for chip manufacturing and to inert production installations. The need for an uninterrupted supply of ultra-pure carrier gases requires long-term commitments for up to 20 years from customers with the building of production units near their premises or even on the customer's site;
- **Electronic Specialty Materials:** they are used for high volume manufacturing of devices in semiconductor, flat panel and photovoltaic industries;
- **Advanced Materials:** they are key to the processes used in the manufacturing of more advanced chips. The most sophisticated advanced materials are developed in partnership with our customers and their ecosystems. These materials are essential for the miniaturization and energy efficiency of the new generation of electronic chips;
- **Equipment and Installation:** the Electronics business line also supplies equipment for the distribution of gas and chemical products and installs them at its customers' facilities;
- **Services:** customers rely on Air Liquide's expertise for the daily management of gases and chemical products on their sites, as well as to provide cutting-edge analytical services to continuously improve their production processes.



KEY POINTS

The Group's **Electronics** business line consists of five different segments:

- Carrier Gases with a business model based on long-term contracts including minimum volumes guaranteed by take-or-pay type clauses;
- Electronic Specialty Materials which are used for high volume manufacturing of electronic devices;
- Advanced Materials, with a high level of technical expertise and constant innovation;
- Equipment & Installation;
- Services.

2.2. ENGINEERING & CONSTRUCTION

To provide customers with the gases required for their industrial production, Air Liquide engineers have developed innovative proprietary technologies. The Group designs and constructs gas production units, from the feasibility study stage through to the delivery of the complete installation, for its own use or for sale to customers who prefer to insource their gas requirements. Air Liquide complies with the increasingly strict safety, reliability and competitiveness requirements of Air Separation Units and hydrogen units.

Engineering & Construction development for industrial gas, energy conversion, gas purification and CO₂ capture technologies, as well as renewable and low-carbon hydrogen, enable customers to optimize the use of natural resources. Engineering & Construction teams are helping customers to reduce their greenhouse gas emissions, focusing on technologies and skills to support energy transition.

In particular, Engineering & Construction teams are already offering the customers, particularly in hard-to-abate sectors, a full range of carbon capture proprietary technologies that enable them to decarbonize their operations.

To cover all of the primary industrial markets and manage its production costs, the Engineering & Construction business has extensive geographical coverage with engineering centers and manufacturing workshops located mainly in North America, Europe, Asia and the Middle East.

The Group favors the development of its gas sales business over equipment sales. Nonetheless, Engineering & Construction has a strategic value for the Group, both internally and externally.

Internally, the Group benefits from the relevant engineering resources during the investment phase of the projects of its Gas & Services businesses. It provides a high level of expertise, crucial to the design of efficient units which specifically respond to the needs of the Group's Gas & Services customers. It provides support for the Group during site takeovers, by ensuring the appropriate assessment of the quality of assets purchased.

The Engineering & Construction business also serves third-party customers. Air Liquide designs and builds customized units that customers will own and operate. Also, this third-party customer business allows the Group to constantly assess the competitiveness of its own technologies and commercial offering. In particular, Air Liquide is able to forge close relations with customers who produce their own gas and better understand their industrial processes and investment projects. In certain cases, negotiations initially steered toward the sale of equipment were finalized by the signing of a long-term industrial gas supply contract. As part of this third-party customer business, the strategy consists of favoring research and equipment supply contracts and not tolerating construction risks. Accordingly, Engineering & Construction's contribution to consolidated revenue (sales to third-party customers) can vary significantly from year to year.

In 2022, published consolidated third-party sales for Engineering & Construction totaled 474 million euros.



KEY POINTS

The **Engineering & Construction** business provides the Group with a genuine competitive edge, enabling it to offer turnkey solutions to its customers and to engage for its own purposes in a process of continuous improvement of industrial processes, reduction in the cost of its industrial assets and of the environmental footprint.

Consolidated Engineering & Construction sales only reflect sales to third parties and do not include internal sales for the needs of the Group or the Gas & Services businesses. In order to cover all the major industrial markets and control its production costs, it has an extensive geographical presence with engineering centers and manufacturing workshops established in particular in North America, Europe, Asia and the Middle East.

2.3. GLOBAL MARKETS & TECHNOLOGIES

To accelerate Air Liquide's sustainable growth, the Global Markets & Technologies (GM&T) World Business Unit delivers technological solutions – molecules, equipment and services – to support the development of markets related to:

- the **energy transition**, mainly in mobility, energy and waste valorization;
- the **deep tech**, in the fields of space exploration, aerospace, fundamental sciences and quantum computing.

The GM&T World Business Unit invests in and operates **biomethane** production units that inject biomethane into the grid for a domestic use or as a renewable fuel for trucks or various industrial applications, replacing fossil fuels. These solutions are based on waste recovery within a **circular economy approach**.

In **hydrogen**, Air Liquide masters the entire supply chain, from production to storage, to distribution and the development of applications for **industrial markets and heavy-duty mobility**. The Group thus contributes to the wider use of hydrogen as a source of clean energy. GM&T designs hydrogen refueling stations to support the mobility. To date, the Group has assembled and delivered about 200 hydrogen refueling stations around the world and is developing technologies and infrastructure required for the use of liquid hydrogen.

For the **maritime industry**, GM&T develops multimodal and sustainable solutions to supply a comprehensive range of gases (air gases, carbon dioxide, helium, hydrogen, krypton, xenon...) and support its customers to decarbonize their operations.

To support **deep tech**, GM&T designs and develops, with its customers and ecosystems, disruptive technologies notably for the launchers, satellites, international research projects and the quantum computing. Through its patented technologies and its expertise in cryogenics, GM&T continues to push the frontiers of science and open up new markets.

GM&T employs 2,500 people around the world and generated a revenue in 2022 of 887 million euros.



KEY POINTS

The **Global Markets & Technologies** World Business Unit relies on proprietary disruptive technologies to open up new deep tech markets and develop new business models within the fields of energy transition with a circular economy approach.

3. Description of the business model

PROFILE

Inventor of the future, Air Liquide has contributed to the world's development since 1902 thanks to the power of science. Oxygen, hydrogen, nitrogen... these molecules are everywhere today, at the heart of our lives. A world leader in gases, technologies and services for industry and health, the Group creates and develops innovative solutions based on technology and scientific expertise to support industry and health in its march towards progress. It acts on a daily basis for its customers, its patients and beyond to be useful to society. It invents a future where a responsible growth can benefit all, for a sustainable future.

ADVANCE

Strategic plan for 2025

RESOURCES & ASSETS

67,100 employees

> 3.9 millions of customers and patients

> 100,000 suppliers

~ 750,000 Shareholders

> 400 technological and industrial partnerships

> 600 production units

~24 millions cylinders

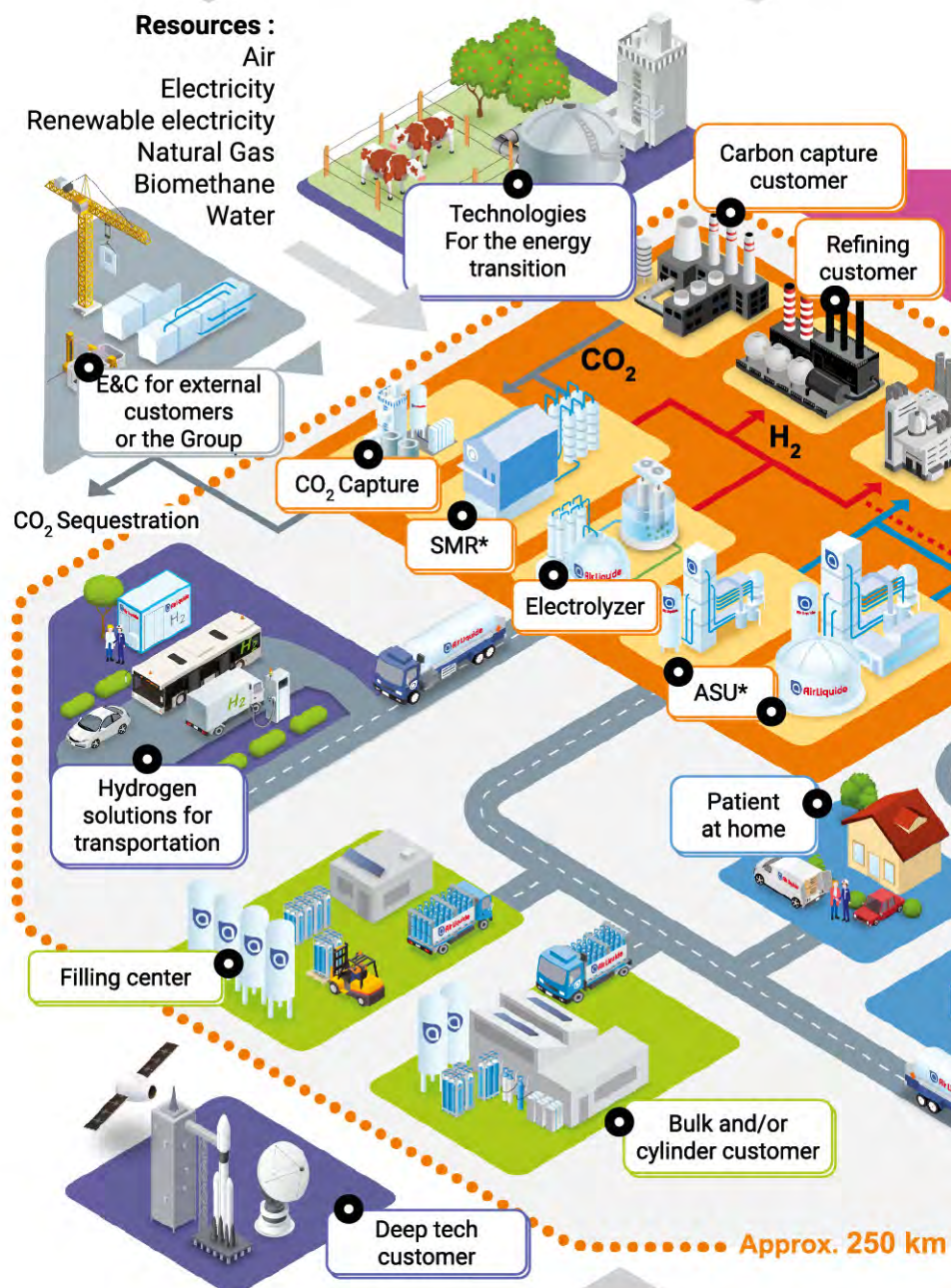
~10,000 trucks

6 Innovation and Technologies Campuses

~14,000 patents

43 TWh of electricity

310 PJ of fuel and feedstock



PREREQUISITES TO ACTION



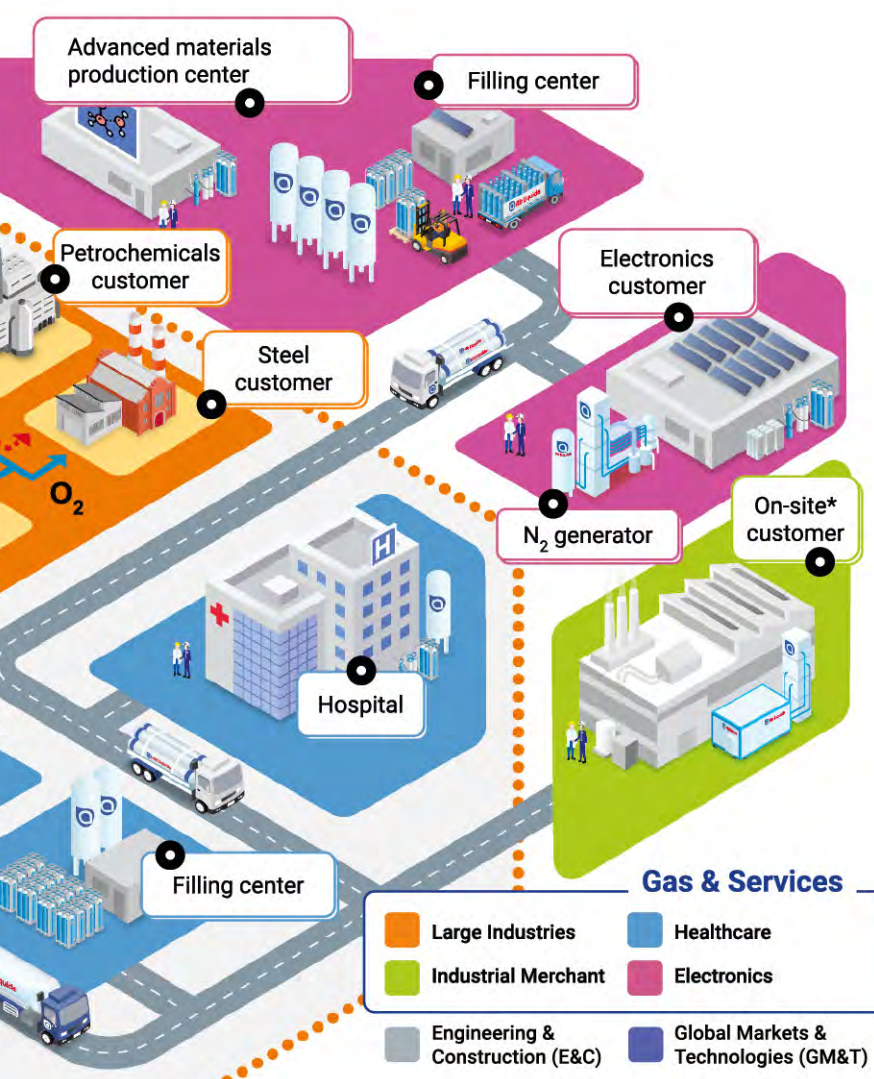
SAFETY



ETHICS



HUMAN



* ASU: air gases production unit (air separation unit)
 * SMR: hydrogen production unit (steam methane reformer)
 * On-site: small gas generator on the customer site

(a) Data calculated according to prevailing accounting rules over 30 years. Adjusted dividend per share to take into account the two-for-one share split in 2007, for free share attributions and for a factor of 0.974 reflecting the value of the preferential subscription rights of the capital increase completed in October 2016.
 (b) Cash flow from operating activities before changes in working capital.
 (c) Retention rate of managers and professionals over one year.

VALUE CREATION

Financial performance ^(a)

Revenue:
 29.9 billion euros
 +6.5% on average over 30 years

Cash flow ^(b):
 6.3 milliards d'euros
 +7.2% on average over 30 years

Adjusted dividend per share:
 +8.4% on average over 30 years

Environment

- Carbon neutrality by 2050
- -33% CO₂ emissions by 2035 (compared to 2020)
- Inflection of emissions in absolute value around 2025

Society

- 0.9 of accident frequency rate:
- 92% of employee loyalty ^(c)
- Highest diversity in its sector
- 69 new projects supported by the Foundation



4. Competition

At a global level, the industrial gases industry comprises three main players: Air Liquide and Linde Plc (Ireland), co-market leaders with sales in excess of 20 billion euros each, and Air Products (United States) with revenue which is more than two times lower. Linde Plc is the new entity following the merger of equals between two global players, Linde AG (Germany) and Praxair (United States), which was completed in October 2018. There are also a number of global and regional players, such as Nippon Sanso Holdings (Japan), Air Water (Japan), Messer (Germany), Hangzhou Oxygen Plant Group “Hangyang” (China) and AirPower (China) – formerly Yingde and Baosteel Gases. Finally, numerous smaller-sized players are also present in local markets.

In Large Industries, the customer can choose between self-production and over-the-fence gas supply. Self-production is currently estimated to account for 90% of hydrogen production and 60% of oxygen production globally, although with significant geographical disparities. Companies self-producing gas represent an important market share for the Group to address. In this respect, the potential to convert self-production into over-the-fence supply represents a major growth opportunity for the Large Industries business. The level of self-production varies strongly depending on the geographic region, type of industry or local culture. In advanced economies, the supply of oxygen is largely over-the-fence, while the supply of hydrogen for refining remains primarily in-house. In developing economies, while relatively new, over-the-fence supply is accelerating significantly. Air Liquide and Linde, the world leaders in Large Industries, are in competition with the other major global players and local players.

Industrial Merchant is a local business: transport costs limit the operating area to within 200 to 250 km of a production unit, except for high value-added gases such as argon and helium. This market, which is highly diversified due to the size and activity of its customers, thus includes numerous small and medium-sized local competitors, either by producing and distributing gas or solely distributing gas.

In Healthcare, most gas industry players also supply hospitals with medical oxygen, but few are present in the treatment of chronic diseases at home. In Home Healthcare, Air Liquide is number one in Europe, whereas Linde Plc has a larger presence in the United States. This market remains fragmented in almost all regions with a multitude of small companies and associations. This fragmentation provides bolt-on acquisition opportunities.

In Electronics, a business in which Air Liquide is the leader, five companies play a major role: Air Liquide, Linde Plc, Merck KGaA (Germany), Air Products and Taiyo Nippon Sanso. In the Advanced Materials market, Air Liquide is a leader and is considered one of the “first movers” focusing on growing its incumbent position and developing innovative new molecules. The other “first movers” in this specific Electronics market are Merck and Entegris.

In Engineering & Construction, Air Liquide also competes with industrial gas players. In “cryogenic” technologies used for air gas separation, the main competitors are Linde Plc, Hangzhou Oxygen Plant “Hang yang”, AirPower and Air Products. Chinese competitors are gaining ground due to strong demand in their country. In “non-cryogenic” technologies used for producing hydrogen and the chemical conversion of syngas, the largest competitors are Technip Energies (France), Tecnimont (Italy), Haldor Topsoe (Denmark) and Linde Plc.

Global Markets & Technologies is growing worldwide, in growth markets such as those relating to the energy transition and deep tech. The competitive landscape varies greatly from market to market, with companies of various sizes: from multinationals to start-ups.

Air Liquide is well positioned to capture new growth opportunities relating to the energy transition, notably low carbon hydrogen, thanks to its strategic positioning, operational experience and expertise in key technologies such as electrolysis, CO₂ capture and hydrogen liquefaction.

STRATEGY AND OBJECTIVES

1. Ambition

Health, climate, energy, mobility... Our world is facing major challenges, even vital ones. Now more than ever, there is an urgent need to invent a sustainable future.

An ambition to invent a sustainable future has driven and guided the way Air Liquide innovates over the last 120 years. Today, its molecules can be found all around us, at the heart of life: in factories, in hospitals, behind smartphone screens and even inside space shuttles.

Inventing a sustainable future means creating and cultivating innovative solutions based on technology and scientific expertise to support industry and healthcare along their march towards progress and a decarbonized world. It means acting on a daily basis for customers and patients in addition to being useful to society as a whole.

Inventing a sustainable future also means creating an original growth model that combines steady and solid financial performance with leading environmental and societal objectives. It means doing business while being responsible.

Because now more than ever, inventing a sustainable future means being open to the needs of everyone and acting in the interest of all.

Inventing a sustainable future is the **ambition** of the Air Liquide Group.

AIR LIQUIDE'S PERFORMANCE OVER 30 YEARS

For more than 30 years, Air Liquide has posted strong performances which has driven its long-term growth outlook. This performance is due to the strength of Air Liquide's business model and diversity of business reach in terms of geographies, businesses, end-markets and customers.

- **Revenue:** +6.5% on average per year.
- **Earning per share** ^(a): +6.8% on average per year.
- **Cash flow from operating activities before changes in working capital:** +7.2% on average per year.
- **Dividend per share** ^(a) ^(b): +8.4% on average per year.
- **Safety - Reduction in the accident frequency rate:** -5.1% on average per year.

(a) Adjusted for the two-for-one share split in 2007, for free share attributions and for a factor of 0.974 reflecting the value of the preferential subscription rights of the capital increase completed in October 2016.

(b) Subject to the approval of the General Meeting on May 3, 2023.

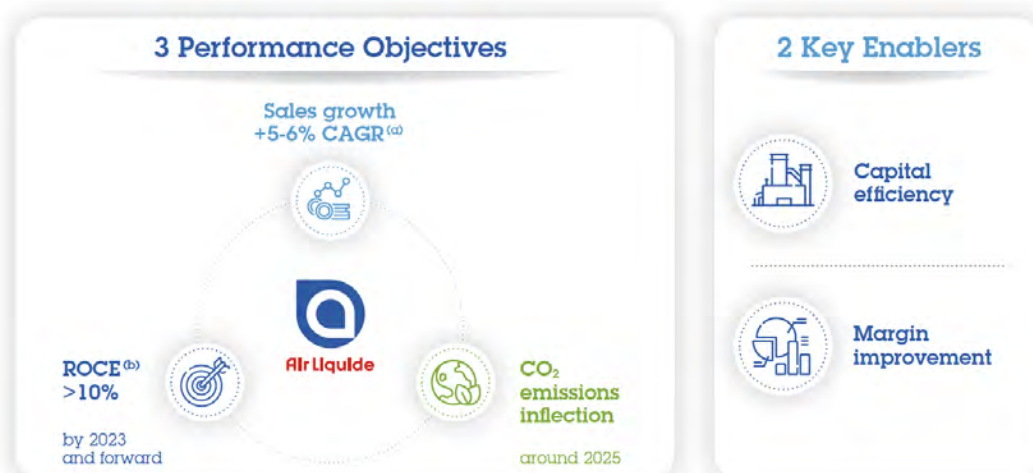
2. Strategic plan and mid-term objectives

On March 22, 2022, Air Liquide presented **ADVANCE**, its new strategic plan for 2025. It places Sustainable Development at the heart of its strategy and **combines financial and extra-financial performance**. With a strong business model which has proven its **resilience**, with its **innovation** capacity and its technological

know-how, the Group is particularly well positioned to continue its **growth** trajectory while contributing to respond efficiently to major economic, environmental and societal challenges.

2.1. DELIVER A STRONG PERFORMANCE

With **ADVANCE**, Air Liquide is taking action today while preparing the future. The Group is rising to an ambitious challenge: maintain its **growth** momentum while pursuing its **CO₂ emission reduction targets** and investing in the **markets of the future**.



(a) Compound Annual Growth Rate (CAGR) of the Group.

(b) Recurring ROCE.

Three objectives define the ambition of the Group when it comes to performance:

- an acceleration in sales **growth** reaching a pace of **+5% to +6% on average per year** ⁽¹⁾;
- a return on capital employed (**ROCE** ⁽²⁾) of **more than 10%** starting from **2023**;
- a **reduction of CO₂ emissions in absolute value** starting around **2025**.

To achieve this, the Group will rely on the **optimization of its capital resources** and on the improvement of its **operating**

2.2. DECARBONIZE THE PLANET

With ADVANCE, Air Liquide confirms its **leadership in the decarbonization of the industry and in the emergence of a low-carbon society** in which hydrogen plays a decisive part.

The reduction of CO₂ emissions is a major challenge for the large players of the industry and for heavy duty mobility. This represents a pool of **opportunities** for Air Liquide.

margin by more than 160 basis points ⁽³⁾ over 4 years (2022-2025) excluding energy passthrough impact by acting on several levers: a dynamic pricing policy, regular efficiencies and an active management of its portfolio of activities.

At the same time, **investment** decisions will be increased to a record level, to reach about **16 billion euros** over the 2022-2025 period, with half of the industrial investments being dedicated to the energy transition ⁽⁴⁾. On average, the annual amount of industrial decisions increases by **+45%** ⁽⁵⁾ compared to the previous strategic plan, "NEOS".

The Group has a large **portfolio of technological solutions** and services to accompany its Large Industries customers across the world in their path to decarbonization. Notably, this includes the supply of **low-carbon industrial gases**, the **transformation** of its customers' industrial **processes** and **CO₂ management**.



Air Liquide recognizes the climate emergency and aims to participate in the implementation of the Paris Agreement, which defines a global framework aimed at limiting global warming to well below 2°C above pre-industrial levels and pursuing efforts to limit it to 1.5°C. As part of its Sustainable Development objectives presented in March 2021, Air Liquide is committed to achieving **carbon neutrality by 2050**. The Group intends to contribute to carbon neutrality by addressing the entire value chain, therefore covering direct emissions ("Scope 1"), indirect emissions linked to electricity and steam supply ("Scope 2") as well as the main indirect emission categories of "Scope 3".

Air Liquide's trajectory towards carbon neutrality in 2050 includes two major intermediate steps in 2025 and 2035:

- to **start reducing** its **absolute CO₂ emissions** around **2025**;
- to reach a **-33% decrease** of its Scope 1 & 2 CO₂ emissions by **2035** compared to 2020.

The Group also maintains its objective to reduce by -30% its carbon intensity in kg CO₂/€ Ebitda in 2025, compared to 2015, in accordance with a commitment that was made in 2018.

Aware of the importance of contributing to the achievement of carbon neutrality throughout its value chain, in 2022, Air Liquide worked on developing its "Scope 3" emissions reduction strategy. The value of its customer relationships has led the Group to pledge to have 75% of its 50 largest customers committed to carbon neutrality by 2025 and 100% by 2035.

For more information, see pages 353 to 356.

⁽¹⁾ Compound Annual Growth Rate (CAGR) of sales on a comparable basis over the 2021-2025 period.

⁽²⁾ Recurring ROCE based on recurring net profit.

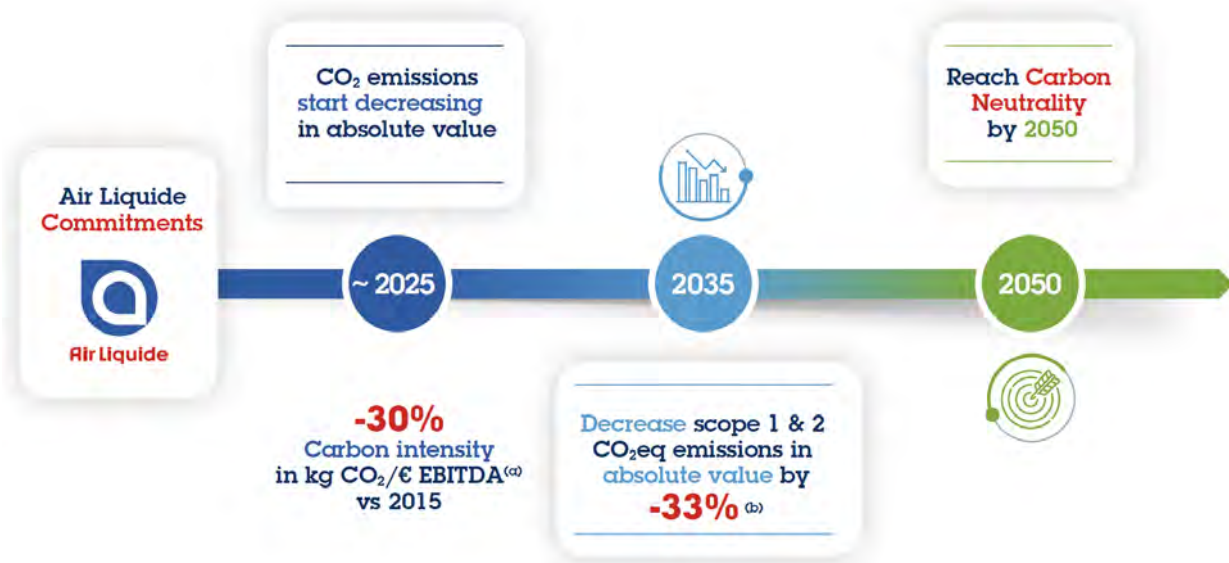
⁽³⁾ Sum of annual operating margin improvements in basis points, excluding energy passthrough impact.

⁽⁴⁾ Industrial investment decisions above 5 million euros.


⁽⁵⁾ Annual average of industrial investments over the 2022-2025 period compared to the annual average over 2016-2019.

CLIMATE OBJECTIVES

The timeline below summarizes the Group's decarbonization objectives:



- (a) In kg CO₂ equivalent/euro of operating income before depreciation and amortization and excluding IFRS 16 at 2015 exchange rates for Scopes 1 and 2 of greenhouse gas emissions using a "market-based methodology" (see methodology for calculating scopes in paragraph 2.2.4 of the Annual Reporting section of chapter 5, pages 426 and 427, as well as reconciliation in the Performance Indicators paragraph of chapter 1, page 61).
- (b) In tonnes of CO₂ equivalent of Scopes 1 and 2, using a "market-based" methodology (see scopes definition in paragraph 2.1.1 page 354 of the Extra-financial Performance Declaration, see methodology for calculating scopes in paragraph 2.2.4 of the Annual reporting section of chapter 5, pages 426 and 427), restated to take into account over a full year from 2020 and each subsequent year, the emissions of the assets which correspond to changes in scope (upwards and downwards) and which have a significant impact on CO₂ emissions.



SCIENCE BASED TARGETS

DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

Air Liquide's Scope 1 & 2 CO₂ emissions reduction target for 2035 has been **validated by the Science Based Target (SBTi)** initiative as being **compliant and in line with climate science^(a)**. The Group was the first in its industry to obtain this validation from the SBTi.

- (a) Air Liquide announced its greenhouse gas emission reduction objectives for Scopes 1 and 2 in March 2021 on a 2020 baseline. Following the acquisition of the Sasol air separation units in South Africa on June 24, 2021, Air Liquide submitted to SBTi a target on a 2021 baseline in order to integrate this significant change in scope (see page 357).



ASSETS AND CLIMATE RISKS

The main Group assets that impact the CO₂ footprint are:

- **424 large Air Gas production Units**, oxygen and nitrogen in particular, which do not generate direct emissions but require electricity. The CO₂ emissions linked to this electricity are accounted for in Scope 2;
- **62 large hydrogen production units**, which consume Natural Gas and emit CO₂ accounted for in Scope 1.
- In the Large Industries business, each air gas or hydrogen production unit is linked to a **long-term customer contract**, lasting **15 to 20 years**. Assets are amortized over the duration of the contract, which limits the risk of impairment.
- Industrial gases are **used in most industries** today and will be even more so during the energy transition due to the fact they are **at the heart of industry decarbonization solutions**. Demand will increasingly turn to low-carbon gases, in line with changing regulations.
- **Solutions have already been implemented to decarbonize existing production units:**
 - for **air gases** (Scope 2 emissions) mainly by using **low-carbon electricity**: the deployment of actions in the 10 countries with the greatest potential will significantly reduce Scope 2 emissions. Since 2018, Air Liquide has already signed 13 renewable power purchase agreements for about 460 MW. As these assets are more than 95% already electrified, they do not require any specific investment for the transition;
 - for **hydrogen production units** or “SMR” (Scope 1 emissions), **by capturing CO₂**. Air Liquide masters a **complete portfolio of proprietary technologies** for capturing CO₂. For example, an advanced Cryocap™ CO₂ capture system has been in **industrial operation since 2015** on a hydrogen production unit in France. The Group was recently selected for financing via European funds for two carbon capture projects on SMRs. The decarbonization of the Group's **10 largest SMRs will reduce Scope 1 emissions by more than 40%**. **No dismantling of existing SMRs before the end of the contract is necessary to achieve the Group climate objectives.**

The demand for **low-carbon gases at a higher price** is growing and allows to **remunerate the necessary investment for the decarbonization** of assets, in particular for the production of hydrogen, as well as any potential overcosts linked to the supply of renewable electricity. In addition, financing programs in the form of subsidies or tax credits are also implemented in Europe and more recently in the United States in order to support, during a transition period, the decarbonization of existing industrial assets and new production units.

- **Energy costs** (electricity for air gases and natural gas for SMRs) and **those related to CO₂ emissions** (e.g. ETS scheme in Europe) are **re-invoiced 100% to the customer** in the frame of a long-term contract. The Group also applies this business model to the supply of low-carbon gas, so **Air Liquide does not bear the risk associated with energy and CO₂ costs**.
- A client is therefore facing an arbitration between:
 - bear the **cost of CO₂**, or
 - **buy low-carbon hydrogen from Air Liquide, the price of which includes the return on investment in a CO₂ capture unit** as well as operating and storage costs. **The higher the price of CO₂, the more the customer will be encouraged to choose the supply of low-carbon hydrogen**, which will also contribute to the **achievement of its own decarbonization objectives**. A **high carbon price is therefore favorable to accelerating the decarbonization of the Group assets**. The sensitivity study shows that, depending on the geography and the context, a **price starting from 80 to 150 euros per tonne of CO₂ encourages the customer to decide toward the supply of low-carbon hydrogen**. This price can be explicit or integrated into regulatory obligations on the carbon footprint of end products.
- Finally, any **new investment** decision by Air Liquide now includes the constraint of **reducing CO₂ emissions, in line with the Group's decarbonization objectives**. The share of **electrolyzers** among hydrogen production units should therefore increase in the coming years. Air Liquide recently announced several 200 MW electrolyzer projects and entered into an electrolyzer manufacturing partnership and joint venture with Siemens Energy.

The potential impacts of the **risk related to the energy transition** were analyzed as part of the closing of the Group's financial statements (see note 31 to the Consolidated financial statements - page 309) and **no significant impact was identified, mainly for the reasons mentioned above**. The energy transition is above all a **growth opportunity for Air Liquide**, as the **Group has the technologies to decarbonize the assets of its industrial customers**.

2.3. TECHNOLOGICAL INNOVATION TO OPEN NEW MARKETS

With ADVANCE, Air Liquide aims to contribute to the development of key sectors for the future, where it intends to reinforce its positions, leveraging on innovation and technology, two major assets of the Group.

The Group will focus on five new markets:



Electronics, where the digital revolution represents a real development opportunity and will strengthen the Group's leadership position;



Deep Tech, including space, extreme cryogenics and the quantum computing;



Healthcare, in which Air Liquide's value-based approach, which improves quality of life for the patient at the best cost for the health system, responds to major societal issues;



Hydrogen mobility, and notably heavy duty mobility: a very high potential market, where Air Liquide has a leading position and in which low-carbon hydrogen will play a key role.

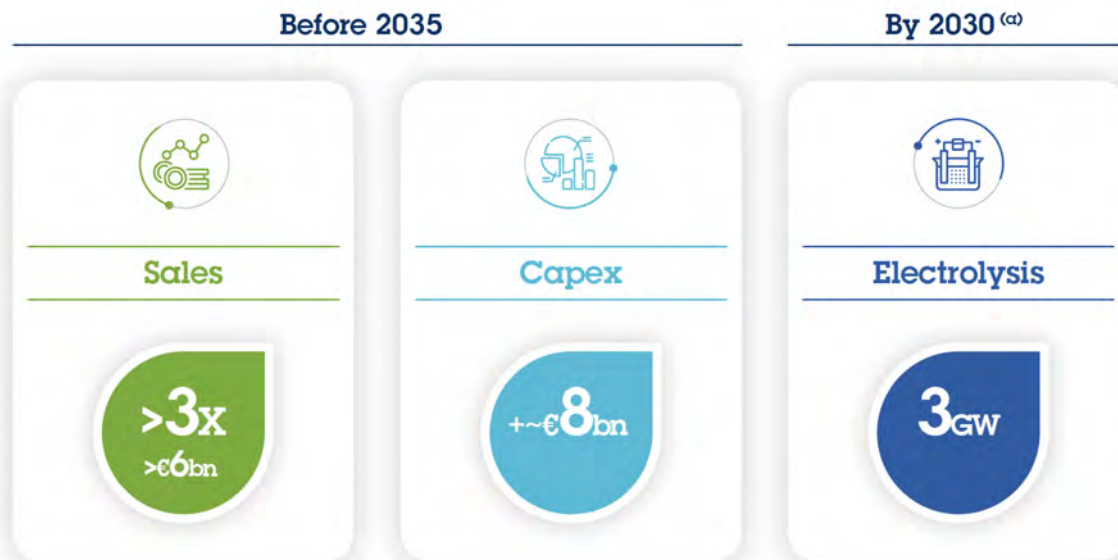


Industrial Merchant whose growth is driven by environmental challenges and by new usages, notably digital;

HYDROGEN OBJECTIVES FOR INDUSTRY AND MOBILITY

The Group is deeply convinced that **hydrogen will play a major role in the energy transition**. Hydrogen offers tremendous growth potential as a competitive low-carbon solution for many applications in the **industry and mobility sectors**. The Group intends to be a key enabler of the hydrogen society thanks to its assets, technology, expertise and strategic positioning built up over about 50 years. This is why in these new hydrogen markets, **the Group masters the whole value chain for industry and mobility** which includes the sourcing of low-carbon energies and renewables, the production of hydrogen, packaging by compression and liquefaction, delivery by truck and pipelines along with storage and distribution to the end customers. To this end, the Group is investing in new technologies to produce and distribute low-carbon hydrogen at large scale competitively, reliably and safely, such as electrolysis, capture of CO₂ and hydrogen liquefaction.

The Group has confirmed the commitments made during the Sustainability Day in 2021 and will develop hydrogen as quickly as the ecosystem allows. Air Liquide plans to **invest 8 billion euros** in the field of low-carbon and renewable hydrogen and to **triple its sales from 2 to 6 billion euros before 2035**. In addition, in **2030** the **electrolysis** capacities in operation or under construction will reach **3 GW**.



(a) Electrolysis capacities in operation or under construction.

2.4. ACTING FOR ALL

In the context of ADVANCE, Air Liquide aims to include the perspective of its direct stakeholders, as well as those of Society at large.

Concretely, this means:



fostering **employee engagement** and the development of their skills through the implementation of new ways of working in a safe, inclusive and collaborative environment;



always going further in the quality of the privileged relationship Air Liquide nurtures with its **Shareholders**, with a regular and attractive remuneration that rewards loyalty;



reinforcing our **customer-centric culture**, to better acknowledge, anticipate and support their needs, and by continuing the profound transformation already underway to better serve the **patients**;



acting as a committed corporate citizen concerned with the **general interest**, where the Group's contribution can make a difference, in particular by taking action in communities, or for example by developing initiatives to promote access to medical oxygen.

SOCIAL AND SOCIETAL OBJECTIVES

The Group's commitment to society is reflected in particular by a "zero accident" safety ambition and by the implementation of actions to achieve the following objectives:

- **35% of women among managers and professionals by 2025;**
- **100% of employees will benefit from a common basis of care coverage by 2025;**
- **100% of employees will have the opportunity to engage in local initiatives to support communities by 2025.**

3. Strategy governance

3.1. ORGANIZATION

Various internal structures contribute to the definition and implementation of the Group's strategy. Their roles are presented in chapter 2 "Risk factors and control environment", page 75.

Regular meetings are chaired by the CEO or by the Senior Vice President in charge of the Strategy depending on the subjects in order to review the Group's strategy, major investments and policies. The Executive Committee meets on a regular basis to review the strategy and its implementation.

Moreover, monthly meetings of the Group Performance Steering Committee are held to establish investment budgets and action plans to undertake or amend in order to achieve the annual or multi-annual objectives.

Finally, investments are validated through the Resources and Investment Committees (RIC), the operation of which is described on page 45 of this chapter.

Taking environmental and societal challenges into account is an integral part of the Group's strategy. The Sustainable Development Department, which reports to an Executive Vice President, a member of the Executive Committee, thus contributes to the development of the strategy and defines the specific measures to be included in the Company program. Moreover, this Executive Vice President takes part with a sustainable development focus in meetings related to strategy and some RIC.

3.2. INVESTMENT PROCESS

The Group's steady long-term growth is largely due to its ability to invest in new projects each year. Investment projects in the industrial gas business are spread throughout the world, highly capital intensive and supported by long-term contracts, in particular for Large Industries and Electronics. Air Liquide has thus tailored its financing to the nature of its projects, based on the diversification of financing sources, the prudent management of the balance sheet and innovative financing methods. This financing policy is fundamental for the Group's continued development.

The Group's investments reflect its growth strategy. They can be classified into two categories:

- industrial investments, which bolster organic growth and guarantee the efficiency, replacement, maintenance and safety of installations;
- financial investments, which strengthen existing positions or accelerate penetration into a new region or business segment through the bolt-on acquisition of companies or assets already in operation, as well as new technologies.

The nature of industrial investments differs from one World Business Line to the next: from gas production units for Large Industries and Electronics, to filling centers, logistics equipment, storage facilities, medical devices and management systems for Industrial Merchant, Electronics and Healthcare. The nature of investments is also highly varied within Global Markets & Technologies. Capital intensity varies greatly from one business to another.

CLIMATE AND INVESTMENT DECISIONS

According to the Air Liquide business model, the growth of activities requires investments in new production units. Thus, achieving decarbonization objectives necessarily involves aligning investment plans with the decarbonization trajectory. The investment process is now accompanied by the allocation and monitoring of an annual “CO₂ budget” allocated to the Group’s operations, in order to fine-tune the trajectory.

Moreover, for all its projects, for all geographies, even those without a current price for CO₂, Air Liquide **includes a carbon price in its investment decision process**. A **sensitivity study** to this aspect is performed with various values including a **reference price of 50 euros per tonne, the local current price and a high value of 100 euros per tonne, or more**, chosen in function of the geography and context. The study allows to assess the economic cost of greenhouse gas emissions and consequences on the project, even in the case of a strong carbon price increase in the long term. The analysis **ensures the robustness and sustainability of the customer project, the CO₂ cost being contractually invoiced to the client**. This analysis also makes it possible to validate the relevance and viability of the investment solution planned by Air Liquide and to propose low-carbon technological solutions.

3.2.1. Capital intensity

Capital intensity is the ratio of capital required to generate one euro of supplementary revenue when projects or businesses reach maturity. This capital is either invested in industrial assets (production units, storage facilities, logistics equipment, etc.), or used as working capital to finance the development of the activities.

Capital intensity varies significantly from one business to another:

- Large Industries:
 - air gas production has a capital intensity of around 3. It varies with the trend in electricity prices,
 - hydrogen production has a capital intensity of between 1 and 2, due to the high proportion of natural gas or electricity (in the case of electrolyzers) in the cost of sales. This capital intensity, therefore, varies with the changes in natural gas and electricity prices;
- Industrial Merchant capital intensity to launch the business in a new market is between 1.5 and 2;
- Electronics has an average capital intensity between 2.5 and 3;
- in Healthcare, capital intensity, excluding acquisitions, is around 1 depending on the product mix.

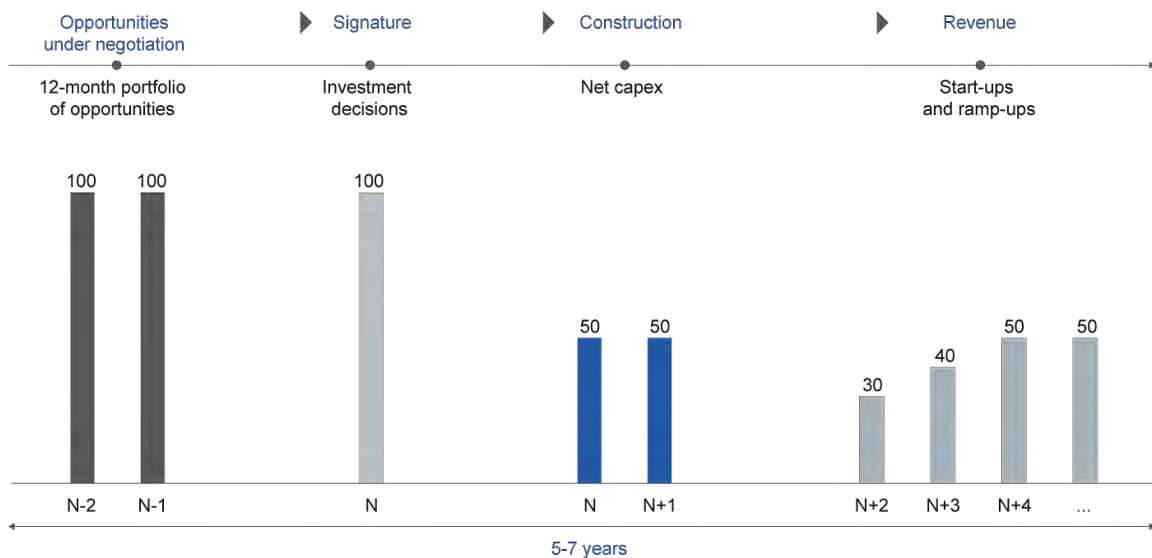
The Group’s capital intensity, therefore, continues to vary depending on the business mix, project type and prices of raw materials. It is much higher for renewal and efficiency investments.

Whatever the capital intensity, any project must enable the Group to achieve its Return On Capital Employed (ROCE) objective over the long term. Therefore, for the same level of return on investment, the operating margin (OIR to revenue ratio) of a project will depend on the capital intensity of the activity in which the project is carried out.

3.2.2. The theoretical lifespan of gas production unit contracts

Long-term development is one of the key characteristics of the Industrial Gas business. It is particularly evident in the investment cycle, where there is approximately a five-year span between the study of a new construction project for a Large Industries customer and the first corresponding industrial gas sales. Investment cycles in other business lines are generally shorter. Monitoring the lifespan of these projects is essential to anticipating the Group’s future growth. The chart below provides details of each stage of this process based on the example of a Large Industries contract.

INVESTMENT CYCLE OF A LARGE INDUSTRIES CONTRACT



Applying a theoretical capital intensity of 2, an investment of 100 million euros in a new project should generate 50 million euros of sales per annum, when fully ramped-up.

- **Opportunities and Negotiation phase:** the project is included in the portfolio of investment opportunities and enters into the development process. Projects exceeding 5 million euros of investment for Large Industries and exceeding 3 million euros for other business lines are monitored within the portfolio of potential opportunities and split between those for which a decision is expected within 12 months and those for which the investment decision will take more than one year. Projects are then discussed and negotiated with the customer. Projects can be removed from the portfolio for several reasons:
 1. the contract is signed, it is removed from the portfolio and therefore becomes an investment decision;
 2. the project is abandoned by the customer;
 3. the customer decides against an over-the-fence gas supply or the project is awarded to a competitor;
 4. the project is delayed beyond 12 months: it is removed from the 12-month portfolio but remains in the long-term portfolio.
- **Signature phase:** the two parties reach an agreement. The signing of a long-term contract represents an investment decision validated by the internal governance bodies. The project is removed from the portfolio of investment opportunities and is registered in current investments.
- **Construction phase:** the construction of the unit generally takes around 24 months and sometimes up to 36 months depending on the size of the project. This is the capital expenditure period. The project remains in current investments.
- **Revenue phase:**
 1. commissioning: this corresponds to the start-up of the unit. Sales reflect the needs of the customer with a guaranteed minimum volume at the take-or-pay level, guaranteeing minimum profitability from the beginning of the contract;
 2. ramp-up: this is the unit's ramp-up phase. Over the course of the contract term, volumes increase above the take-or-pay level to the nominal amount defined in the contract. Nominal capital intensity is achieved only at the end of this phase.

3.2.3. Governance of major growth projects

Three Air Liquide entities are at the heart of major growth projects, from development through to its execution.



The business line involved ensures the global customer relationship is monitored, provides the required know-how and ensures the overall consistency of the project, in terms of both contract and technical standards. It is also responsible for good internal governance practices.

The local subsidiary proposes the project and, once the contract has been signed, carries the investment on its balance sheet. It is then responsible for operations, customer relations and the project's financial profitability.

Engineering & Construction provides the technologies and guarantees that they are competitive, both overall and specifically for each project thanks to a good industrial architecture solution. Engineering & Construction is responsible for the technical aspect and works with local Capital Implementation teams (CI within the hubs) which are responsible for executing the project. The local CI team is supported by a dedicated CIG (Capital Implementation Group) composed of experts. In the cases of the most complex projects, the project execution authority is piloted by the Group Transformational Investments team (GTI).

Potential projects are identified well in advance, based on good market knowledge and a strong local presence. The first stage includes selecting the opportunities in which the Group would like to invest both commercial and technical resources, in line with its global strategy. This selection process is followed by a series of validation stages.

During the development stage, the project is submitted for the approval of the geographic region on which it depends. At the Group level, three major bodies validate the relevance of the project: the RIC (Resources & Investment Committee – see below page 45) which is responsible for assessing and validating investment requests, the ERC (Engineering Risk Committee) which is responsible for assessing technical and execution risk, as well as the E-Enrisk (Energy and Emissions Risks Committee) in charge of taking into account aspects related to energy and the environment.

Once the project has been decided on by Air Liquide and signed with the customer, it is executed by a team composed of representatives of the investing subsidiary and Engineering & Construction, under the supervision of the geographic hub.

During the start-up of a unit, project management is the responsibility of the local operational teams, under strict standards to ensure the site's security and integrity. The operational management of the unit is carried out by the local subsidiary, and the Group and hub's Operations Control monitors its financial performance.

ROLE OF THE RESOURCES & INVESTMENT COMMITTEE (RIC)

The purpose of these Resources and Investments Committees (RIC) is to assess and approve requests for investments that have been submitted, as well as medium and long-term contractual commitments and Human Resources requirements that may arise therefrom.

They meet regularly (usually once a month) for each hub (Americas, Europe, Asia Pacific, and Middle-East & Africa) and each World Business Unit (Healthcare, Engineering & Construction, Innovation & Development Division (IDD), Headquarters).

Each Committee meeting is chaired by a member of the Executive Committee in charge of the hub or of the World Business Unit involved and brings together managers of the region and business line concerned by the investment, as well as representatives of the Group Finance Department (who have a veto right), Engineering & Construction, and the Capital Implementation Group (CIG).

The Committee's decisions are reviewed by Executive Management.

The decision is based on a rigorous assessment of individual projects as well as each project's expected profitability. The following criteria are systematically reviewed:

- the location of the project: the analysis will take into account whether the project is based in an industrial basin with high potential, whether it is connected to an existing pipeline network, or whether it is in an isolated location;
- the competitiveness of the customer's site: based on size, production processes and particularly their environmental footprint, cost of raw materials and access to markets;
- customer risk;
- the green house gases emissions as well as their economic impact and solutions for reducing emissions;
- the adequacy of the project with the Group's environmental objectives, including alignment with the decarbonization trajectory;
- the other sustainable development criteria, such as water consumption, biodiversity and relations with local communities;
- the physical risks related to climate change;
- exposure to the risk of corruption;
- contract clauses;
- end products and the stability of future demand for these products;
- quality and risk related to the technical solution;
- country risk: evaluated on a case-by-case basis and can lead to changes in the financing policy and its supplementary insurance cover.

Following approval by the RIC and signing with the customer, the project is transferred to the current investment category.

INVESTMENT CYCLE DEFINITIONS

Investment opportunities at the end of the period

Cumulative value of investment opportunities taken into account by the Group for a decision within the next 12 months. Industrial projects generating revenue of more than 5 million euros for Large Industries and more than 3 million euros for other business lines, including replacement assets and efficiency projects.

Decisions during the period

Cumulative value of industrial and financial investment decisions. Growth and non-growth industrial projects, including the renewal of assets, efficiency projects, maintenance and security, as well as financial decisions (acquisitions).

Investments backlog at the end of the period ^(a)

Cumulative value of investments for projects that have been decided but not yet started up. Industrial projects of more than 10 million euros, including the renewal of assets and efficiency projects.

Sales backlog

Cumulative value of forecast annual revenue, generated by current investments at the end of the period, fully ramped-up.

(a) Different from construction in progress (see note 12.1 to the Consolidated Financial Statements on page 280) without threshold or business criteria.

3.3. FINANCING

The financing policy is regularly reviewed to provide the best possible support to the Group's development and take into account changes in financial market conditions while respecting a credit profile in line with Standard & Poor's and Moody's long-term minimum "A" category rating.

The Air Liquide Group applies the following principles of prudence:

- diversifying financing sources and spreading of debt maturities in order to minimize refinancing risk;
- backing commercial paper issues with confirmed credit facilities;
- hedging interest rate risk to ensure visibility of financing costs, in line with long-term investment decisions;
- funding investments in the currency of the operating cash flows, to ensure a natural currency hedging;
- a permanent centralization of funding and excess cash through Air Liquide Finance, a wholly-owned entity of L'Air Liquide S.A.

3.3.1. Diversifying and securing financing sources

Air Liquide diversifies its financing sources by accessing various debt markets: commercial paper, bonds and banks.

For its short-term financing, Air Liquide uses the short-term commercial paper market, in France, in the form of short-term negotiable securities (NeuCP) through two programs of up to an outstanding maximum of 3 billion euros each, and in the United States through a US Commercial Paper program (USCP) of up to an outstanding maximum of 2 billion US dollars.

For its long-term financing, Air Liquide has a Euro Medium Term Note (EMTN) program to issue long-term bonds of up to an outstanding maximum amount of 12 billion euros. This program allows, in particular, for bonds to be issued in the principal currencies (euro, US dollar, Japanese yen) as well as in other currencies (Chinese renminbi, Swiss franc and pound sterling). Air Liquide can also issue private placements.

In line with its environmental and social objectives, Air Liquide has established a Sustainable Financing Framework to cover the following instruments to finance sustainable projects intended to have a clear benefit to the environment and society. This Framework is aligned with the Green Loan Principles 2020 and the Social Loan Principles 2021 overseen by the Loan Market Association (LMA) and with the Green Bond Principles 2018 (GBP), the Social Bond Principles 2020 (SBP) and the Sustainability Bond Guidelines 2018 (SBG) overseen by the International Capital Markets Association (ICMA).

The Group also raises funds through bank debt (loans and credit facilities).

To avoid liquidity risk relating to the renewal of funding at maturity, and in accordance with the Group's internal policy, the Group limits its short-term debt maturities to an amount that is covered from its core banks by committed credit facilities, syndicated or bilateral.

Investments are generally funded in the currency in which the cash flows are generated, creating a natural currency hedge.

3.3.2. Centralization of cash and funding, excess cash and hedging

To benefit from economies of scale and facilitate capital markets financing (bonds and commercial paper), the Group uses a dedicated subsidiary, Air Liquide Finance. This subsidiary centralizes the vast majority of the Group's financing transactions. It hedges currency, interest rate and energy risk for the Group's subsidiaries in those countries where it is permitted by law.

In the countries where local regulations allow it, Air Liquide Finance also centralizes cash flow balances through direct or indirect daily cash pooling of these outstanding balances or through intra-group loans and borrowings. When daily international cash concentration is not possible, there exist, nonetheless, local cash poolings which allow periodic intercompany loans to Air Liquide Finance.

Due to the currency matching within Air Liquide Finance, resulting from the currency hedging of intra-group loans and borrowings, these internal financing transactions do not generate a foreign exchange risk for the Group.

Air Liquide Finance, which centralizes the Group's financial hedging transactions, complies with EMIR requirements (European Market Infrastructure Regulation) relating to its status as a non-financial counterparty (NFC-). Following the definitions brought by EMIR REFIT and according to its status "NFC-", Air Liquide Finance transferred from 2021 the responsibility for reporting derivatives to its counterparties.

Furthermore, in certain specific cases (e.g. regulatory constraints, high country risk, joint ventures, etc.), the Group may limit its risk through adapted management, by setting up specific financing in the local banking market, and by using credit risk insurance.

3.3.3. Staggering debt maturity

To minimize the refinancing risk related to debt maturity schedules, the Group spreads maturities over several years.

Debt maturity schedules are regularly reviewed by Finance Department and Executive Management during Finance Committee.

Refinancing risk is also reduced by the regularity of the cash flow generated from Group activities.

3.3.4. Use of bank guarantees

Group subsidiaries require from time to time bank guarantees, mostly in favor of Healthcare, Engineering & Construction and Global Markets & Technologies, either during the tender period (bid bond), or after contract award, during contract execution until the end of the warranty period (advance payment bond, retention bond, performance bond, and warranty bond).

The most common bank guarantees are advance payment bonds and performance bonds and are extended to customers to secure contractual performance.

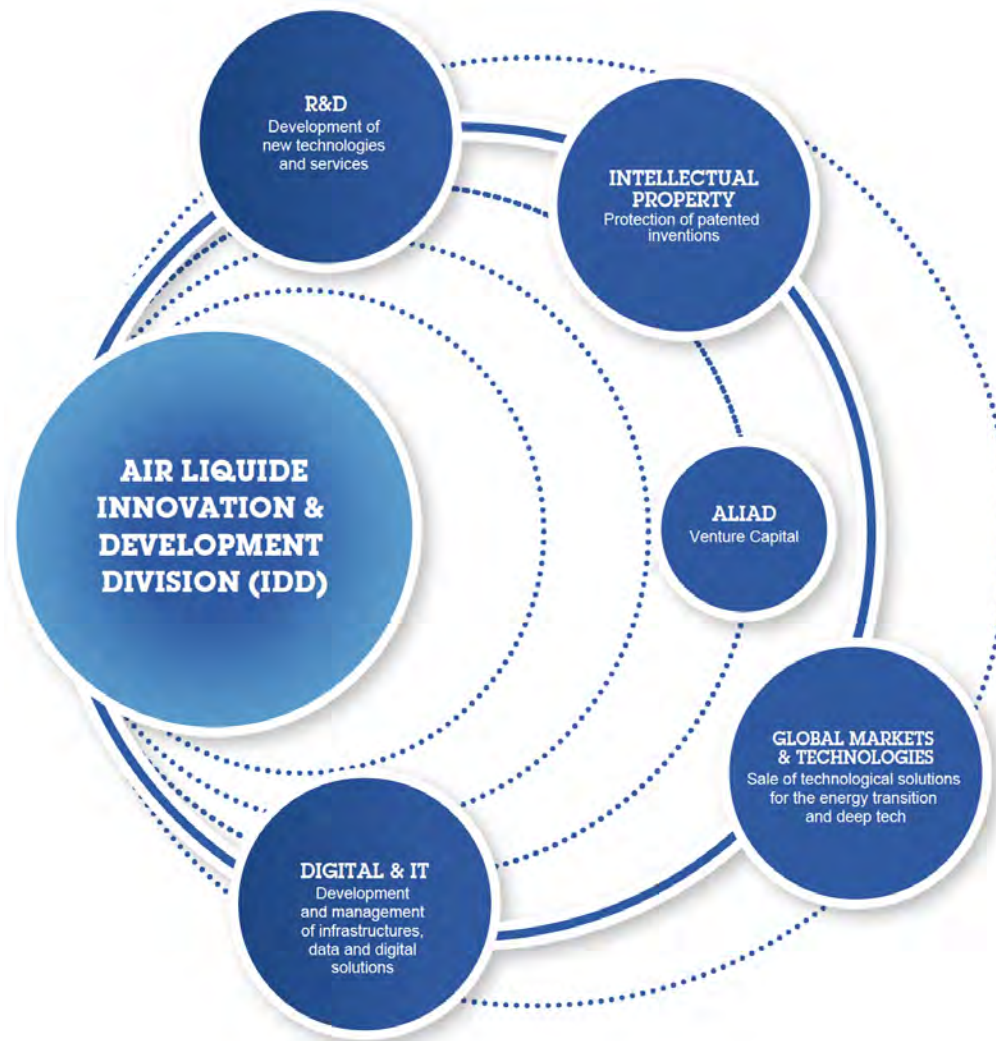
In the Group's ordinary course of business, certain subsidiaries are required to provide financial payment guarantees to secure rental or insurance obligations.

The projects, for which these guarantees are granted, are regularly reviewed by management and are subject to approval by the Board of Directors for guarantees which exceed 100 million euros. When guarantee payment calls become probable, the necessary provisions are recorded in the Consolidated Financial Statements.

3.4. INNOVATION

The **Innovation and Development Division (IDD)** drives the innovation strategy and its execution for the Group’s Hubs and Operations, with the strong support of the World Business Lines. It contributes to the operational excellence and future growth of the Group by creating new profitable and sustainable offers in both traditional and new businesses. It is responsible for imagining, developing and incubating new solutions until they are brought to market, particularly when it comes to offers with high technological content (including Digital & IT).

The Innovation and Development Division relies both on its Innovation Campuses and its Campus Technologies, which gather the experts of its internal ecosystem, and on its partnerships with external innovation ecosystems, as well as its engineering centers.



The investment decisions and resources relating to innovation rely on the **Group’s governance bodies (Resources and Investment Committee – RIC, Risk Committee)**, the operation of which is described on pages 92 and 93 of the present Universal Registration Document.

Research & Development projects are subject to joint governance by the R&D Program directors and the World Business Lines in order to ensure the projects are aligned with business strategies and to anticipate the industrialization and rollout phases. The implementation of R&D projects for a cluster (group of countries), in line with the World Business Lines strategy also helps improve customer proximity and reduces the time to market of innovations.

Furthermore, **Technology Roadmaps (TRM)** dedicated in particular to the Hydrogen energy, Global Markets & Technologies

and Engineering & Construction have been defined and are coordinated by the Innovation and Development Division’s Chief Technology Officer working hand in hand with R&D and the Business Lines. Structured around the project maturity scale, these roadmaps constitute the steering tool of the Group’s technology innovation strategy. The **First-of-its-Kind Committee (FOIK)**, created specifically to assess the risks relating to demonstration projects carried out for the first time by the Group and to the implementation of innovative technologies on commercial units, meets every month. The digital projects in development phase, prior to deployment (Minimum Viable Product – MVP) are subject to technological validation by the Corporate teams and are presented to the RIC.

The innovation strategy is also regularly reviewed by the **Group’s Executive Committee** and the **Board of Directors**.

PERFORMANCE

Unless otherwise stated, all variations in revenue outlined below are on a comparable basis, excluding currency, energy (natural gas and electricity) and significant scope impacts.

1. Key figures

<i>(in millions of euros)</i>	FY 2021	FY 2022	2022/2021 published change	2022/2021 comparable change ^(a)
Total Revenue	23,335	29,934	+28.3%	+7.0%
<i>Of which Gas & Services</i>	22,267	28,573	+28.3%	+6.1%
Operating Income Recurring (OIR)	4,160	4,862	+16.9%	+10.5%
Group OIR Margin	17.8%	16.2%	-160 bps	
<i>Variation excluding energy ^(b)</i>			+70 bps	
Other Non-Recurring Operating Income and Expenses	(151)	(571)		
Net Profit (Group share)	2,572	2,759	+7.3%	
Net Profit Recurring (Group share) ^(c)	2,572	3,162	+22.9%	
<i>Variation Net Profit Recurring (Group share) excluding currency impact ^(c)</i>			+17.3%	
Earnings per share <i>(in euros)</i>	4.94 ^(d)	5.28	+7.0%	
Net Dividend per share <i>(in euros)</i>	2.63 ^(d)	2.95 ^(e)	+12.2%	
Cash flow from operating activities before changes in net working capital	5,292	6,255	+18.2%	
Net Capital Expenditure ^(f)	3,388	3,246		
Net Debt	€10.4 bn	€10.3 bn		
Net Debt to Equity ratio	47.5%	41.8%		
Return on Capital Employed after tax – ROCE	9.3%	9.1%	-20 bps	
RECURRING ROCE ^(g)	9.3%	10.3%	+100 bps	

(a) Change excluding the currency, energy (natural gas and electricity) and significant scope impacts, see reconciliation in Performance indicators paragraph, page 61.

(b) See reconciliation in Performance indicators paragraph, page 61.

(c) Excluding exceptional and significant transactions that have no impact on the operating income recurring, see reconciliation Performance indicators paragraph, page 62.

(d) Restated to take into account the June 2022 free share attribution.

(e) Dividend proposed to Shareholders for the fiscal year 2022.

(f) Including transactions with minority shareholders and dividends received from equity affiliates.

(g) Based on the recurring net profit, see reconciliation in Performance indicators paragraph, page 63.

2. Income statement

REVENUE

Revenue (in millions of euros)	FY 2021	FY 2022	2022/2021 published change	2022/2021 comparable change
Gas & Services	22,267	28,573	+28.3%	+6.1%
Engineering & Construction	387	474	+22.6%	+20.6%
Global Markets & Technologies	681	887	+30.3%	+25.8%
TOTAL REVENUE	23,335	29,934	+28.3%	+7.0%

Revenue by Quarter (in millions of euros)	Q1 2022	Q2 2022	Q3 2022	Q4 2022
Gas & Services	6,590	7,010	7,897	7,076
Engineering & Construction	108	113	115	138
Global Markets & Technologies	189	197	235	266
TOTAL REVENUE	6,887	7,320	8,247	7,480
2022/2021 Group published change	+29.1%	+32.8%	+41.3%	+12.4%
2022/2021 Group comparable change	+7.9%	+7.5%	+8.3%	+4.5%
2022/2021 Gas & Services comparable change	+7.1%	+7.3%	+7.2%	+3.5%

Group

Group revenue for 2022 totaled **29,934 million euros**, up sharply by **+7.0%** compared to 2021.

This performance was delivered in a challenging context of exceptionally high energy prices, strong inflation, strain on supply chains and the conflict in Ukraine. The Group benefited from a **solid business model and diversity of business reach in terms of geographies, businesses, end-markets and customers** which ensured a **resilient performance** and allowed the Group to **take advantage of all growth opportunities**. The ADVANCE strategic plan reinforces these attributes which **position the Group in growth markets of the future** (in particular the energy transition, Semiconductors and Healthcare).

Consolidated sales of the **Engineering & Construction** business grew by **+20.6%**, reflecting the increase in order intake in recent quarters. **Global Markets & Technologies** continued its growth momentum with sales up by **+25.8%** in 2022, driven in particular by the Biogas business development.

The Group's **revenue as published** posted a significant increase of **+28.3%** in 2022, with a record high energy impact of **+15.3%** as well as a favorable currency impact of **+5.8%**, while the significant scope impact was limited (**+0.2%**).

Gas & Services

Gas & Services revenue in 2022 totaled **28,573 million euros**, a strong increase of **+6.1%**. The two growth drivers for 2022 were the **Industrial Merchant** business, with sales up **+14.2%**, supported by a record price effect and resilient volumes, and the **Electronics** business, with revenue up **+16.4%**. Despite a high basis of comparison in 2021 linked to covid-19, sales in **Healthcare** increased by **+3.6%**, supported by the strong development of Home Healthcare, particularly in Europe, and proximity care in the United States. Sales in **Large Industries** were down **-6.6%**, marked by mixed activity depending on the geography: in Europe, the decline in volumes was part of a context of an exceptionally strong increase in energy prices, while sales increased in America and remained stable in Asia. Sales in Gas & Services in 2022 rose sharply by **+28.3%** as published: the energy impact (**+16.1%**) reached a record level over the year, with a peak in the 3rd quarter, the currency impact (**+5.8%**) also made a positive contribution, while the significant scope effect (**+0.3%**) remained limited. The latter corresponds to the additional contribution in 2022 of the 16 Sasol units acquired in June 2021, less the effect of the deconsolidation of the activities in Russia from September 1, 2022.

Revenue by geography and business line (in millions of euros)	FY 2021	FY 2022	2022/2021 published change	2022/2021 comparable change
Americas	8,445	10,680	+26.5%	+10.2%
Europe	8,315	11,390	+37.0%	+2.0%
Asia-Pacific	4,790	5,608	+17.1%	+7.0%
Middle East & Africa	717	895	+24.7%	+0.8%
GAS & SERVICES REVENUE	22,267	28,573	+28.3%	+6.1%
Large Industries	6,978	10,525	+50.8%	-6.6%
Industrial Merchant	9,487	11,567	+21.9%	+14.2%
Healthcare	3,706	3,923	+5.9%	+3.6%
Electronics	2,096	2,558	+22.0%	+16.4%

Americas

Gas & Services revenue in the Americas totaled **10,680 million euros** in 2022, up sharply by **+10.2%**. The Large Industries business (+3.7%) benefited from the start-up of several production units and solid demand. In the Industrial Merchant business, sales increased by +13.5%, supported by the strong increase in prices. Despite a high basis of comparison due to the covid-19 pandemic in 2021, Healthcare revenue was up +3.9% thanks to the development of the proximity care business in the United States and the Home Healthcare business in Latin America. Finally, Electronics posted sales up +5.8% over the year, driven by strong growth in Carrier Gases and Specialty Materials.

AMERICAS GAS & SERVICES 2022 REVENUE



- **Large Industries** revenue in 2022 was up **+3.7%**. Air gases volumes were up sharply until the end of the 3rd quarter, supported by solid demand from Chemicals customers and the contribution of new production units. The 4th quarter was

marked by weaker demand in Chemicals, particularly from ethylene oxide producers, and in the Steel industry. Hydrogen sales also increased in 2022, supported by the ramp-up of new units in Latin America offsetting several customer maintenance turnarounds.

- In **Industrial Merchant**, the significant increase in sales of **+13.5%** in 2022 was supported by a very strong **price effect** of **+13.4%**, offsetting the increase in costs in an inflationary context. Volumes were stable across the year and up +1% excluding helium, in particular for bulk and hardgoods, while the volume growth of cylinder gas was more moderate. Sales grew across all sectors in 2022, particularly in the Automotive, Fabrication, Materials and Energy sectors.
- **Healthcare** revenue was up **+3.9%** in 2022, despite a sharp decline in volumes of medical oxygen for treating covid-19 compared to 2021. Sales of medical gases rose in the United States as a result of dynamic activity and higher prices in proximity care. In Latin America, Home Healthcare sales were up sharply over the year and medical gases contributed to growth in the 2nd half-year.
- The **Electronics** business posted a revenue increase of **+5.8%** over the year. The strong growth in Carrier Gases was supported by the ramp-up of several production units and high helium prices. Specialty Materials sales were considerably higher, benefiting notably from the increase in the price of rare gases. Lastly, high sales in Equipment & Installation contributed to the development of the business in the United States.



AMERICAS

- Air Liquide announced a **long term agreement** to supply ultra high purity hydrogen, helium, and carbon dioxide to one of the world's largest **semiconductor** manufacturers. The Group plans to invest nearly **50 million euros** to build, own and operate onsite plants and systems at a new manufacturing site in Phoenix, **Arizona**.

Europe

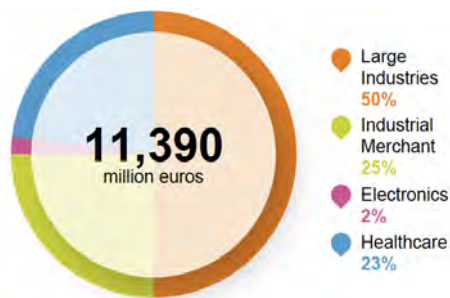
Revenue in Europe was up **+2.0%** in 2022 and totaled **11,390 million euros**. Sales evolution was contrasted depending on business lines. In a context of very high energy prices, Large Industries sales were down by -16.6% over the year, strongly impacted by volumes down -8% and a combined effect ⁽¹⁾ in the 3rd quarter. The Industrial Merchant business line saw an

exceptionally high level of sales growth of +24.1%, benefiting from a record price effect of +23.6%. Healthcare revenue posted an increase of +4.4%, supported by the dynamism of Home Healthcare and despite a high basis of comparison due to the covid-19 pandemic in 2021.

⁽¹⁾ Indeed, for Large Industries, the calculation method values the energy impact of the year on the basis of the volumes of the preceding year times the difference of energy prices. Consequently, the rise in energy prices being exceptionally strong and volumes down, the energy impact is amplified, as well as a negative combined effect, which reduced comparable sales of Large Industries.

- In a context of conflict in Ukraine and exceptionally high energy prices, peaking in the 3rd quarter, sales in **Large Industries** decreased by **-16.6%** in 2022. The beginning of the slowdown seen toward the end of the 1st quarter, notably in Steel, was confirmed from the 2nd quarter across all sectors. As a result, volumes were down -8% over the year and -16% in the 4th quarter, due to the slowdown in demand from customers in the Steel and Chemicals sectors, particularly in Germany and Benelux. Moreover, certain refineries used lighter crude oils, which need less hydrogen. Finally, in the 3rd quarter and, to a lesser extent, in the 4th quarter, the comparable growth was also heavily impacted by an unfavorable combined effect ⁽²⁾ linked to very high energy prices.
- The **Industrial Merchant** business line saw an exceptionally high level of sales growth of **+24.1%** in 2022, driven by a record **price effect** of **+23.6%**. Amid an inflationary environment, contractual indexation and proactive price rise campaigns clearly proved their effectiveness. In the 4th quarter, the price effect remained strong despite the high basis of comparison, as prices had begun to increase significantly in the 4th quarter of 2021. Volumes remained very resilient, slightly up in 2022, despite a shortage of liquefied CO₂ which worsened in the 4th quarter. Sales increased across all sectors, particularly Food, Fabrication and Materials.
- Sales in **Healthcare** posted solid growth of **+4.4%**, despite a high basis of comparison in 2021, particularly in the 1st half-year, due to the covid-19 pandemic. They benefited in particular from a dynamic Home Healthcare business, in particular for the treatment of diabetes, and from the contribution of an acquisition in Poland in the 4th quarter of 2021. In Medical Gases, the unfavorable basis of comparison resulting from the high oxygen consumption during the covid-19 pandemic in 2021 was reduced in the 2nd half-year and the price increases that were gradually achieved over the year partially offset inflation-related rises in costs. Specialty Ingredients sales saw a pronounced increase, driven by higher volumes and price increases to offset higher costs.

EUROPE GAS & SERVICES 2022 REVENUE



EUROPE

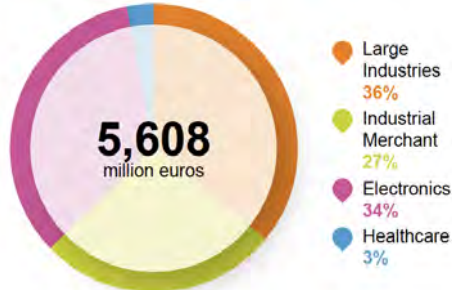
- Air Liquide and **TotalEnergies** are innovating, in the context of the conversion to a biorefinery of the TotalEnergies' Grandpuits site, to **produce and valorize renewable and low-carbon hydrogen**. Air Liquide will invest over **130 million euros** in the construction and operation of a new unit producing hydrogen. This unit will partly use biogas from the biorefinery built by TotalEnergies, and will be equipped from the beginning with **Air Liquide's carbon capture technology, Cryocap™**. These innovations will **avoid emissions** amounting to **150,000 tonnes of CO₂ a year** compared to current processes. TotalEnergies' biorefinery will use the unit's hydrogen to produce **sustainable aviation fuel**. Moreover, Air Liquide will commercialize part of the hydrogen for the mobility and the captured CO₂ for the needs of Industrial Merchant customers.
- In Europe, several projects have obtained **financing** from **European funds** or recognition as an Important Hydrogen **Project of Common European Interest (IPCEI)** making it possible to obtain national subsidies:
 - Air Liquide and **Lhoist** have signed a Memorandum of Understanding (MoU) with the aim to decarbonize Lhoist's lime production plant located in the North of France, using Air Liquide's innovative and proprietary **Cryocap™ carbon capture technology**.
 - The European Commission announced it will grant Air Liquide, Fluxys Belgium and Port of Antwerp-Bruges **144.6 million euros subsidies**. The funding is earmarked for the construction of **shared CO₂ transport and export facilities** on the **Antwerp** port platform. The grant award is a major step towards the final investment decision, expected in 2023.
 - Air Liquide welcomed the **Dutch State** decision to support its large-scale renewable hydrogen projects, named **ELYgator** and **Curthyl**. These **electrolyzer** projects, which will have a capacity of **200 MW each**, will significantly contribute to the **decarbonization** of the Dutch and Belgian **industries** and support the growth of clean **mobility** markets. The ELYgator project has also been selected to receive fundings from the **European Innovation Fund**.
- Air Liquide has signed several **long term renewable power purchase agreement (PPA)** in Europe:
 - a new contract with **Vattenfall** in the **Netherlands** for a **115 MW** of new offshore wind power under construction;
 - a first contract with **Shell Energy Europe Limited (SEEL)** to power industrial and medical gas production in the North East of **Italy** with an installed **42 MW** solar energy capacity.
- Air Liquide confirmed its intention to **withdraw from Russia**. Taking a responsible and orderly approach, the Group has signed a Memorandum of Understanding with the local management team with the objective to transfer its activities in Russia in the framework of an **MBO (Management Buy Out)**. This project is notably subject to Russian regulatory approvals. In parallel, as a consequence of the evolution of the geopolitical context, the **activities of the Group in Russia were no longer consolidated from September 1, 2022**.

⁽²⁾ Indeed, for Large Industries, the calculation method values the energy impact of the year on the basis of the volumes of the preceding year times the difference of energy prices. Consequently, the rise in energy prices being exceptionally strong and volumes down, the energy impact is amplified, as well as a negative combined effect, which reduced comparable sales of Large Industries.

Asia-Pacific

Revenue for the Asia-Pacific region in 2022 rose sharply by **+7.0%**, to total **5,608 million euros**. It benefited from particularly dynamic growth in the Electronics business (+17.8%). Sales in Large Industries were stable (+0.3%), with the covid-19 pandemic disrupting business growth in China, while sales in the rest of Asia remained low throughout the year. In Industrial Merchant, sales benefited from a sharp rise in prices and increased by +4.2%.

ASIA-PACIFIC GAS & SERVICES 2022 REVENUE



- **Large Industries** revenue was stable (**+0.3%**) in 2022. In China, growth slowed in the 1st half-year, in particular due to residual energy control measures during the 1st quarter, and covid-19-related lockdowns during the 2nd quarter. Sales grew strongly in the 3rd quarter and, to a lesser extent, in the 4th quarter, disrupted by the covid-19 pandemic in December. In the rest of Asia, sales were weak in 2022, and more markedly in Singapore, particularly in the 4th quarter.
- **Industrial Merchant** revenue was up **+4.2%** in 2022. The **price effect** stood at a very high level of **+6.8%** over the year. In China, solid sales growth benefited from the increase in prices and the integration of small acquisitions, but was affected by the covid-19 pandemic in the 2nd quarter and at year-end. The situation was contrasted in the rest of Asia in 2022, with business down in Japan but up in Singapore and Australia. In the region, revenue growth was particularly marked in the Food, Energy and Technology sectors.
- 2022 revenue from **Electronics** posted very strong growth of **+17.8%**, supported by all business segments. Carrier Gases benefited from several unit start-ups in China during the year and the ramp-up of several units in the region. Sales in Specialty Materials also grew strongly, partly due to the increase in the price of rare gases. The Advanced Materials business was dynamic, particularly in Singapore and China. Lastly, Equipment & Installation sales in 2022 were very high.



ASIA-PACIFIC

- Air Liquide announced **significant investments** in Asia for the **Electronics** business:
 - the construction in **Taiwan** of **three production units** for two of the world's largest semiconductor manufacturers for a total investment amount of approximately **500 million euros**.
 - long-term contracts for the supply of nitrogen and other very high purity gases in **Japan** with two world leaders in semiconductors. This is a staggered investment of more than **300 million euros** in **four production units** located in key Electronics industrial basins.
- **Shanghai Chemical Industry Park Industrial Gases Co. Ltd (SCIPIG)**, a subsidiary of Air Liquide, will invest more than **200 million euros** to build **two hydrogen production units** and related infrastructure in Shanghai Chemical Industry Park (SCIP). These units will bring significant environmental benefits, as they are designed to **replace current supply from a third party coal-based gasification unit, will be equipped with CO₂ capture and recycling technology** and will be connected to SCIPIG existing local network. These two units will come in addition to two other hydrogen units and four air separation units that SCIPIG already operates in the industrial park.
- Air Liquide Korea and **Lotte Chemical** entered a **joint venture** to scale-up the **hydrogen supply chain** for **mobility** markets in **South Korea**. The companies will co-invest through the joint venture in a new generation of **large scale hydrogen filling centers** in Daesan and Ulsan.
- Air Liquide has signed a **long-term contract** to supply **Kumho Mitsui Chemical (KMCI)**, a world leader in the chemical industry, with additional hydrogen and carbon monoxide in **South Korea's** Yeosu National Industrial Complex, where Air Liquide already operates four production units.

Middle East and Africa

Revenue for 2022 in the Middle East and Africa region was up **+0.8%** to **895 million euros**. The sales growth in air gases in India and Egypt explained the strong performance of Large Industries. Volumes also increased sharply in South Africa with the integration of the **16 Sasol Air Separation Units**, whose acquisition was finalized at the end of the 1st half of 2021; sales of **126 million euros** over the year were accounted for in the **significant scope impact** and hence excluded from comparable growth. In Industrial Merchant, sales were down over the year,

with the +6.4% increase in prices not fully offsetting the divestiture of small businesses in the Middle East; in the 4th quarter, sales growth excluding the impact of divestitures was above +10%. Sales in the Healthcare business were down compared to the high level in 2021 as a result of the covid-19 pandemic. However, activity returned to growth in the 4th quarter due to a more favorable basis of comparison, dynamic activity in Home Healthcare and an acquisition in South Africa.



MIDDLE EAST AND AFRICA

- Air Liquide and **EZZ Steel**, one of the leading **steel** producers in the Middle East and Africa, have signed a **long term agreement** for the supply of industrial gases to EZZ's new plant in Ain Sokhna, East of Cairo, **Egypt**. Air Liquide Egypt will invest around **80 million US dollars** in building an Air Separation Unit (ASU) to supply EZZ needs throughout the duration of the contract, as well as those of other customers in the basin.
- Air Liquide announced the **divestiture** of its **Industrial Merchant** businesses in the **United Arab Emirates, Bahrain and Saudi Arabia**. In the region, the Group **remains well positioned to strengthen** its already strong **presence in Large Industries and Healthcare**, and to seize the many opportunities in the fields of energy transition and the development of low-carbon hydrogen.
- Air Liquide and **Sasol** have signed **two Power Purchase Agreements (PPA)** with **Enel Green Power** for the long-term supply of a total capacity of **220 MW of renewable power** to Sasol's Secunda site, in **South Africa**, where Air Liquide operates the biggest oxygen production site in the world. These PPAs are the first results of the Request for Proposal (RFP) process launched jointly by Air Liquide and Sasol in April, 2021, targeting to secure a total renewable energy capacity of **900 MW**. They will significantly contribute to the decarbonization of the Secunda site, and in particular to the **targeted reduction by 30% to 40% of the CO₂ emissions** associated with the oxygen production by 2031. The 220 MW wind power should be available in 2025.

Engineering & Construction

Consolidated revenue from Engineering & Construction totaled **474 million euros in 2022**, up strongly by **+20.6%**.

Order intake (1,041 million euros) for Group projects and third-party customers **exceeded 1 billion euros for the second consecutive year**. For the Group, this includes a large Steam Methane Reformer (SMR) and several large Air Separation Units (ASU) for Electronics and Large Industries. Sales to third-party customers include a major helium liquefaction unit.



ENGINEERING & CONSTRUCTION

- Air Liquide and **Siemens Energy** announced the creation of a **joint venture dedicated to the series production** of industrial scale **renewable hydrogen electrolyzers in Europe**. With two of the **global leading companies in their field combining their expertise**, this Franco-German partnership will enable the emergence of a sustainable hydrogen economy in Europe and foster a European ecosystem for electrolysis and hydrogen technology. **Production is expected to begin in the second half of 2023** and ramp-up to an annual production capacity of **3 GW by 2025**.
- Autothermal reforming (**ATR**) is one of the latest technologies used for **decarbonization of industries**: combined with carbon capture technology, it allows **efficient, large-scale production of low-carbon hydrogen and ammonia**. Among the leading companies on the ATR, Air Liquide technology has been selected for a **demonstration project**, owned and operated by INPEX CORPORATION, aimed at producing low-carbon hydrogen and ammonia.

Global Markets & Technologies

Global Markets & Technologies revenue for 2022 reached **887 million euros**, representing a very high growth of **+25.8%** compared to 2021. Biogas maintained strong momentum and benefited from sales price increase linked to the spike in energy price. Higher sales of Turbo-Brayton LNG reliquefaction units contributed to the growth. The 4th quarter was also marked by sales of equipment for the space industry and special equipment for cooling helium.

Order intake for Group projects and third-party customers totaled **875 million euros**, representing a dynamic increase of **+25%** compared to 2021. These include more than 50 Turbo-Brayton LNG reliquefaction units to be delivered over the next two to three years, a large helium liquefaction unit and numerous pieces of equipment for the Electronics, Hydrogen and Biogas markets.



GLOBAL MARKETS & TECHNOLOGIES

- Air Liquide invested and will operate its **first biomethane production unit in China** by the end of 2022. Located in Huai'an City, in the Jiangsu Province, the unit will have a **production capacity of 75 GWh per year**. This project demonstrates a **circular economy and low-carbon approach**.
- Air Liquide has opened its **largest liquid hydrogen production and logistics center** in the north of Las Vegas, **Nevada**. This infrastructure aims to meet the **growing needs for hydrogen dedicated to mobility** and to ensure the supply of a large number of industries.
- Air Liquide announced several agreements regarding the development of the hydrogen ecosystem:
 - with **CaetanoBus** and **Toyota Motor Europe** to propose **integrated offers for hydrogen mobility** including the development of **infrastructures** and **fleets of light and heavy vehicles**;
 - with **Groupe ADP** with the ambition of creating the first **engineering joint venture** specialized in **hydrogen integration projects within airport infrastructures**.

OPERATING INCOME RECURRING

Operating income recurring before depreciation and amortization totaled **7,328 million euros**, a sharp increase of **+15.7%** as published and **+9.4%** excluding the currency impact compared with 2021.

Purchases were up markedly by **+41.0% excluding currency impact**, mainly due to the exceptionally strong and rapid increase in energy costs (+65% excluding the currency impact), which are contractually passed through to Large Industries customers. In a context of high inflation, **personnel costs** were up **+7.7% excluding the currency impact**. **Other operating income and expenses** increased by **+14.7% excluding the currency impact** and notably included a marked increase in transport and, to a lesser extent, maintenance costs.

Depreciation and amortization amounted to **2,466 million euros**, an increase of **+6.9% excluding the currency impact**. This increase is mainly related to the start-up of new production units, the integration of Sasol's 16 Air Separation Units (ASU) acquired in June 2021 and Air Liquide taking control of a joint venture in Asia-Pacific. It was very partially offset by the deconsolidation of businesses in Russia.

The Group's **operating income recurring (OIR)** reached **4,862 million euros**. It was up sharply by **+16.9%** as published and **+10.5%** on a comparable basis, which is significantly higher than comparable sales growth of **+7.0%**. The **operating margin (OIR to revenue ratio)** stood at **16.2%** as published, representing a **-160 basis point decline** compared with 2021, due to the sharp increase in energy costs which are contractually passed through to Large Industries customers. This therefore has a mechanical dilutive impact on the published margin. **Excluding the energy impact, the operating margin improved very significantly by +70 basis points**. This performance integrates the dilutive impact of strong inflation of costs other than energy costs, in Industrial Merchant in particular, and which is transferred to sales prices. This **+70 basis point improvement** therefore particularly reflected the Group's ability to rapidly transfer the exceptionally strong and brutal increase in energy costs and inflation in general to sales prices.

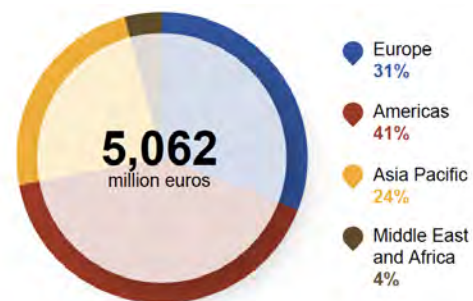
This improvement in the operating margin is also supported by **efficiencies**⁽³⁾ which amounted to **378 million euros** over the year. These efficiencies represent a saving of 2.2% of the cost base. In a context of high inflation unfavorable to **procurement efficiencies**, the priority for the teams is to limit cost increases and transfer them to sales prices. **Industrial efficiencies** contributed more than 50% of total efficiencies and included energy efficiency

and production optimization projects in Large Industries and supply chain improvements in Industrial Merchant. The Group's **digital transformation** continued: in Large Industries with the connection of new units to remote operation centers (Smart Innovative Operations, SIO), in Industrial Merchant with the acceleration of the tools implementation to optimize delivery routes (Integrated Bulk Operations, IBO) and in Healthcare with the deployment of remote patient support platforms. The continued implementation of shared service centers and the global continuous improvement program also contributed to efficiencies.

Portfolio and pricing management also supported margin improvement.

Gas & Services

GAS & SERVICES 2022 OPERATING INCOME RECURRING



The Gas & Services businesses operating income recurring totaled **5,062 million euros**, representing a sharp increase of **+16.0%** compared with 2021 and of **+10.2% on a comparable basis**. The operating margin stood at **17.7%** as published, up **+70 basis points excluding the energy impact**. The operating margin, as published, was down compared with 2021 due to the very strong increase in energy costs, which are contractually passed through to customers and thus have a dilutive impact.

Prices in the Industrial Merchant business experienced a **record increase of +14.7%** in 2022, with a peak at **+18.0%** in the 3rd quarter, demonstrating the Group's ability to rapidly transfer the rise in costs. Prices were also up in Large Industries, Electronics and Healthcare, across all regions.

⁽³⁾ See definition in Performance indicators paragraph, page 62.

Gas & Services Operating margin ^(a)	FY 2021	FY 2022	2022/2021 excluding energy impact
Americas	20.1%	19.5%	+10 bps
Europe	17.4%	13.8%	+140 bps
Asia-Pacific	22.2%	21.2%	-
Middle East & Africa	22.1%	23.6%	+200 bps
TOTAL	19.6%	17.7%	+70 bps

(a) Operating income recurring/revenue as published.

Operating income recurring in the **Americas** reached **2,084 million euros** in 2022, an increase of **+23.0%** as published. **Excluding the energy impact**, the operating margin increased by **+10 basis points** compared with 2021. In Large Industries, solid efficiencies and spot sales of electricity produced by cogeneration units participated in the margin improvement. Efficiencies in Industrial Merchant, combined with strong cost control, also made a positive contribution.

Operating income recurring for **Europe** totaled **1,577 million euros**, an increase of **+9.2%** as published. **Excluding the energy impact**, the operating margin saw a sharp increase of **+140 basis points** compared with 2021. In Large Industries, the structure of contracts ensured the resilience of the operating margin in a context of declining volumes; solid efficiencies also contributed to margin improvements, as well as cogeneration unit activity and the combined effect ⁽⁴⁾ in an environment of sharply rising energy prices. In Industrial Merchant, the increase in prices and efficiencies contributed to the increase of the operating margin, while in Healthcare, the increase in costs was not fully offset by price effects.

Operating income recurring in **Asia-Pacific** stood at **1,190 million euros**, an increase as published of **+11.6%**. The operating margin **excluding the energy impact** remained **stable** compared with 2021.

Operating income recurring for the **Middle East and Africa** reached **211 million euros**, an increase of **+33.3%** as published. **Excluding the energy impact**, the operating margin saw a very strong increase of **+200 basis points** compared with 2021. The integration of the 16 Sasol units, carried out without re-invoicing energy costs to the customer until the end of the 3rd quarter, is the main contributor to this increase. The divestments in Industrial Merchant in the Middle East and the efficiencies generated in all business lines also had an accretive impact on the operating margin.

Engineering & Construction

Operating income recurring for **Engineering & Construction** was **44 million euros** in 2022. The operating margin stood at **9.3%**, compared to 11.0% in 2021, and remains in line with the business unit's medium-term objectives.

Global Markets & Technologies

Operating income recurring from the **Global Markets & Technologies** business stood at **112 million euros** with an operating margin of **12.6%**.

Corporate Costs and Research & Development

Corporate and Research & Development expenses stood at **356 million euros**, up +4.4% compared with 2021.

NET PROFIT

Other operating income and expenses showed a net balance of **-571 million euros**.

Other operating expenses amounted to -833 million euros and included an exceptional provision of -586 million euros, with no impact on cash ⁽⁵⁾, which covers the impairment of all of the Group's assets in Russia. As a reminder, the Group signed a letter of intent with the local executive management team in September 2022, to transfer ⁽⁶⁾ its businesses in Russia in the form of an MBO (Management Buy Out). In addition, due to the changing geopolitical context, the Group's businesses in Russia are no longer consolidated from September 1, 2022. Other operating expenses also included, for -48 million euros, a provision for risks in the Engineering & Construction business, as well as restructuring costs.

Other operating income stood at 262 million euros and corresponded mainly to Air Liquide taking control of a joint venture in Asia during the 1st half-year, revalued at fair value.

Financial income and expenses amounted to **-386 million euros**, compared with -408 million euros in 2021. They included **net finance costs of -288 million euros**, a very slight increase of +0.5% excluding the currency impact. The average net finance cost, at 3.0%, was up slightly from 2.8% in 2021, mainly due to the increase in factoring costs, which are directly related to the rise in interest rates. **Other financial income and expenses** stood at **-98 million euros** compared with -128 million euros in 2021. This difference stems from a provision reversal related to interest on arrears.

The **income tax expense** totaled **-1,002 million euros** in 2022, i.e. an effective tax rate of **25.7%**, up slightly from 25.4% in 2021, mainly due to significant non-taxable non-recurring items ⁽⁷⁾.

The **share of profit of associates** amounted to **1 million euros**. The share of **minority interests** in net profit totaled **145 million euros**, up +21.2%, mainly due to Air Liquide taking control in January 2022 of a joint venture in Asia.

⁽⁴⁾ Indeed, for Large Industries, the calculation method values the energy impact of the year on the basis of the volumes of the preceding year times the difference of energy prices. Consequently, the rise in energy prices being exceptionally strong and volumes down, the energy impact is amplified, as well as a negative combined effect, which reduced comparable sales of Large Industries.

⁽⁵⁾ With the main exception of -7 million euros related to the unwinding of currency hedging positions.

⁽⁶⁾ This project is subject in particular to Russian regulatory approvals.

⁽⁷⁾ Mainly non-deductible provisions on Group's assets in Russia and the non-taxable capital gain related to Air Liquide taking control of a joint activity in Asia.

Net profit (Group share) stood at **2,759 million euros** in 2022, showing strong growth of **+7.3%** as published and an increase of **+1.0%** excluding the currency impact. Excluding the exceptional provision on the Group's assets in Russia, the provision for risks in the Engineering & Construction business and the exceptional income related to Air Liquide taking control of a joint venture in Asia, all these items having no impact on cash, **recurring net income⁽⁸⁾ (Group share)** stood at **3,162 million euros**, up sharply by **+22.9%**, and **+17.3% excluding the currency impact**, compared to 2021 recurring net income (Group share). Recurring net income (Group share) thus exceeded 3 billion euros for the first time.

Net earnings per share, at **5.28 euros**, were up **+7.0%**⁽⁹⁾ compared with 2021, in line with the increase in net profit (Group share). The average number of outstanding shares used for the calculation of 2022 net earnings per share was **522,069,020**.

CHANGE IN THE NUMBER OF SHARES

	FY 2021	FY 2022
Average number of outstanding shares	520,828,581^(a)	522,069,020

(a) Adjusted following the free share attribution in June 2022.

DIVIDEND

At the Annual General Meeting on May 3, 2023, the payment of a dividend of **2.95 euros** per share will be proposed to shareholders for the fiscal year 2022. Following the free share attribution of 1 for 10 in June 2022, the proposed dividend shows a strong growth of **+12.2%** compared with the previous year. The total estimated pay-out taking into account stock-options, share buybacks and cancellations would amount to **1,587 million euros**, representing a **pay-out ratio of 58%** of the published net profit. The ex-dividend date is scheduled for May 15, 2023 and the payment is scheduled for May 17, 2023.

3. 2022 Cash Flow and Balance Sheet

(in millions of euros)	2021	2022
Cash flow from operating activities before changes in net working capital	5,292	6,255
Changes in working capital	377	(397)
Other cash items	(99)	(48)
Net cash flows from operating activities	5,571	5,810
Dividends	(1,418)	(1,487)
Purchase of property, plant and equipment and intangible assets, net of disposals ^(a)	(3,388)	(3,246)
Proceeds from issues of share capital	175	38
Purchase of treasury shares	(40)	(192)
Lease liabilities repayments and net interests paid on lease liabilities	(274)	(283)
Impact of exchange rate changes and net indebtedness of newly consolidated companies & restatement of net finance costs	(465)	(453)
Change in net debt	161	187
Net debt as of December 31	(10,448)	(10,261)
DEBT-TO-EQUITY RATIO AS OF DECEMBER 31	47.5%	41.8%

(a) Including transactions with minority shareholders.

NET CASH FLOW FROM OPERATING ACTIVITIES AND CHANGES IN WORKING CAPITAL REQUIREMENT

Cash flows from operating activities before changes in working capital amounted to **6,255 million euros**, a marked increase of **+18.2%** and of **+12.0%** excluding the currency impact. The cash flow over sales ratio reached a high level of **20.9%**, an improvement of **+110 basis points compared with 2021, excluding the energy impact**.

Working Capital Requirement (WCR) rose by **397 million euros** compared with 2021. This was mainly due to the increase in inventories, which reflects inflation and the anticipation of supply difficulties for certain products. Thus, **WCR excluding tax to revenue ratio** stood at **1.6%**, a slight increase compared to an exceptionally low level of **0.9%** in 2021 (and **2.3%** in 2020).

Net cash flow from operating activities after changes in working capital requirement amounted to **5,810 million euros**, an increase of **+4.3%** compared with 2021.

⁽⁸⁾ See definition and reconciliation in Performance indicators paragraph, page 62.

⁽⁹⁾ Net earnings per share for 2021, restated to take into account the impact of the free share attribution on June 8, 2022, amounted to 4.94 euros.

CAPITAL EXPENDITURE

(in millions of euros)	Industrial Investments	Financial Investments ^(a)	Total capital expenditures ^(a)
2018	2,249	131	2,380
2019	2,636	568	3,205
2020	2,630	145	2,775
2021	2,917	696	3,613
2022	3,273	140	3,413

(a) Including transactions with minority shareholders.

Capital expenditure was very high in 2022 at **3,413 million euros**, including transactions with minority shareholders.

Industrial capital expenditure amounted to **3,273 million euros**, compared with 2,917 million euros in 2021, an increase of +12.2% and +7.5% excluding the currency impact, reflecting very dynamic project development activity. For the Gas & Services businesses, this expenditure totaled 2,967 million euros with the corresponding geographical breakdown presented in the table below.

(in millions of euros)	Gas & Services				Total
	Europe	Americas	Asia Pacific	Middle East and Africa	
2021	913	909	755	64	2,641
2022	972	979	866	150	2,967

Financial investments amounted to **140 million euros** in 2022, including 4 million euros of transactions with minority shareholders. They mainly included the acquisition of small entities in the Industrial Merchant and Healthcare business lines, as well as an additional participation in a joint Large Industries business in Asia, resulting in Air Liquide taking its control. This compares with 660 million euros in 2021, including the acquisition of 16 Air Separation Units from Sasol in South Africa for approximately 480 million euros.

Proceeds from the sale of assets, which reached **153 million euros** in 2022, underline the Group's efforts to maintain an active portfolio management strategy. They include the disposal of Industrial Merchant businesses in Latin America and in the Global Markets and Technology business line in Europe.

Net capital expenditure ⁽¹⁾ totaled **3,246 million euros**.

NET DEBT

Net debt at December 31, 2022, amounted to **10,261 million euros**, a decrease of 187 million euros compared with December 31, 2021. The increase in the Group's cash flows from operating activities before changes in working capital makes it possible to reduce net debt after the payment of more than 3.2 billion euros in investments and nearly 1.5 billion euros in dividends. The net debt-to-equity ratio stood at 41.8%.

ROCE

The return on capital employed after tax (ROCE) was 9.1% in 2022. The recurring ROCE ⁽²⁾ stood at **10.3%**, a significant improvement compared to 9.3% in 2021 and reached the **ADVANCE strategic plan's ROCE target (of over 10%) one year early**.

4. Investment cycle and financing

INVESTMENTS

Investment decisions and investment backlog

(in billions of euros)	Industrial Investment decisions	Financial investment decisions (acquisitions)	Total investment decisions
2018	3.0	0.2	3.1
2019	3.2	0.6	3.7
2020	3.0	0.1	3.2
2021	3.0	0.6	3.6
2022	3.9	0.1	4.0

⁽¹⁾ Including transactions with minority shareholders and dividends received from equity affiliates.

⁽²⁾ See definition and reconciliation Performance indicators paragraph, page 63.

In 2022, **industrial and financial investment decisions** reached a record level of nearly **4.0 billion euros**.

Industrial **investment decisions** amounted to **3,861 million euros**, up **+30%** compared with 2,969 million euros in 2021.

- In **Large Industries**, decisions concerned notably projects related to the energy transition. Thus, a new unit in France will in particular supply hydrogen to a biorefinery producing renewable fuels for aviation, hydrogen for mobility and biogenic CO₂ for the Industrial Merchant business line (by recovering the residual biogas from the biorefinery and using the Cryocap™ CO₂ capture process). Decisions also include initial investments to improve the efficiency of the production units acquired in South Africa in 2021, the installation of a CO₂ recycling system on an existing carbon monoxide production unit in Europe, as well as the electrification of several Air Separation Units in China (impact on Group's CO₂ emissions by approximately -1%).
- Development was robust in the **Electronics** business, notably in Asia with projects for new production units for carrier gases and advanced materials. Investment decisions also include production units in the United States and Europe.
- In **Industrial Merchant**, investment decisions in 2022 included more than 50 small gas generators on customer sites, including several for use in conversion to oxy-combustion furnaces for the glass or aluminum industries, thus reducing natural gas consumption by customers and consequently their CO₂ emissions.

- Investments in the **Healthcare** business concerned in particular a new specialty ingredients production unit in France.
- Several investment projects were approved in 2022 in the **Global Markets & Technologies** business, notably for the production of biogas in Italy and the United States. Furthermore, a new krypton and xenon purification unit will be built in Korea.

Financial **investment decisions** reached **112 million euros** in 2022, compared with 662 million euros in 2021, which included the acquisition of the units from Sasol for approximately 480 million euros. In **Industrial Merchant**, they included several small acquisitions in the United States, China and the Netherlands, and in **Healthcare**, the acquisition of a South African company specializing in the treatment of diabetes.

The **investment backlog** hit a record high of **3.5 billion euros**. Projects in **Asia** represented a little more than half of investments, primarily in the Electronics business, with several projects in Large Industries. The **Europe** and **America** regions have similar levels of ongoing investment: in Europe, these are mainly projects related to the energy transition and in America, mostly projects for Large Industries and Electronics. These projects should lead to a future contribution to annual sales of approximately **1.3 billion euros per year** when fully ramped up, an increase from 1.1 billion euros at the end of 2021.



INVESTMENTS

- Air Liquide signed a record number of **52 new long-term on-site contracts** for its **Industrial Merchant** business line in 2022. On-site production solutions represent a **competitive, reliable, environmentally friendly** solution and contributes to the **resilience** of the Industrial Merchant activity. These units will serve the Group's customers in nitrogen, oxygen or hydrogen especially in the glass, metals, water and waste treatment as well as secondary electronics growing markets. In 2022, the Group also launched a **new generation of on-site oxygen production units**, already being installed to convert industrial furnaces to oxy-combustion, **saving 10% of energy** compared to previous generation.

Start-ups

The main start-ups in 2022 concerned the **Large Industries** and **Electronics** businesses. In **Large Industries**, several high-capacity Air Separation Units started up along the Gulf Coast in the United States and in China. In Electronics, start-ups mainly involved several carrier gas and advanced materials production units in Asia, in particular a large ASU and an electrolyzer in Taiwan in the 4th quarter. In the **Global Markets & Technologies** business, they also included several biogas production units and a major hydrogen production and liquefaction unit for the hydrogen mobility market in California.

The **additional contribution to sales** of unit start-ups and ramp-ups totaled **421 million euros** in 2022, including a 128 million euro contribution by the Sasol units in South Africa, with 126 million euros being accounted for in the significant scope. Electronics is the main contributor in Asia, while in Europe and Americas it is Large Industries.

The **additional contribution to 2023 sales** of unit start-ups and ramp-ups should be between **300 million and 330 million euros**, which is higher than the corresponding amount in 2022, excluding the contribution from the Sasol units.

Investment opportunities

The **12-month portfolio of investment opportunities** remains high at **3.3 billion euros** at the end of 2022, up from 3.0 billion euros in the 3rd quarter of 2022. The projects related to **energy transition** represent more than **40% of the investment opportunities**. In Europe, these mainly included projects for renewable hydrogen production by water electrolysis, capture of CO₂ emitted by the Group's or its customers' production units, as well as hydrogen mobility development. Investment opportunities in Asia concerned Large Industries, Electronics and hydrogen mobility. In the Americas, the portfolio of investment opportunities at 12 months included a majority of large projects in Electronics, supported by the Chips Act, as well as projects in the Large Industries business. The portfolio of opportunities **beyond 12 months** also includes the first significant projects related to the **Inflation Reduction Act** in the United States, particularly along the Gulf Coast.

2022 FINANCING

“A” Category financial rating confirmed

Air Liquide is rated by two main rating agencies, Standard & Poor’s and Moody’s. The long-term rating from Standard & Poor’s is “A” and from Moody’s is “A2”, an improvement compared with “A3” in 2021. These are in line with the Group’s strategy. Moreover, the short-term ratings are “A1” for Standard & Poor’s and “P1” for Moody’s, an improvement compared to “P2” in 2021. Standard & Poor’s confirmed its ratings on March 29, 2022 and gave them a stable outlook. Moody’s announced long-term and short-term rating upgrades on September 6, 2022 and gave them a stable outlook.

Diversifying and securing financial sources

As of December 31, 2022, Group financing through capital markets accounted for **88% of the Group’s total debt**, for a **total amount of outstanding bonds of 10.5 billion euros** including all types of bonds, and 0.1 billion euros of commercial paper.

The **total amount of credit facilities** was **stable at 3.6 billion euros**. The syndicated credit facility covers an unchanged amount of **2.5 billion euros** and matures in December 2025. Since 2019, this facility includes an indexation mechanism of financial costs on three of the Group’s CSR targets in the areas of carbon intensity, gender diversity, and safety.

The amount of total debt maturing in the next 12 months is 2.0 billion euros, slightly less than as of December 31, 2021.

2022 issues

In September 2022, under the EMTN program, the Group issued a public **bond** for an amount of **600 million euros**, maturing in 10 years.

At the end of 2022, outstanding bonds issued under the EMTN program amounted to 7.0 billion euros (nominal amount).

Net Debt by currency as of December 31, 2022

	December 31, 2021	December 31, 2022
Euro	42%	46%
US Dollar	42%	37%
Japanese Yen	2%	3%
Chinese Renminbi	N.C.	1%
Taiwanese Dollar	N.C.	4%
South African Rand	3%	2%
Others	11%	7%
TOTAL	100%	100%

N.C.: non communicated

Investments are generally funded in the currency in which the cash flows are generated, creating a natural currency hedge. In 2022, net debt decreased in US dollar and increased in euro, Japanese Yen, Chinese renminbi and in Taiwanese dollar. The share of dollar in total net debt decreased in favor of these currencies.

Centralization of cash and funding

In 2022, Air Liquide Finance continued to pool the cash balances of Group entities.

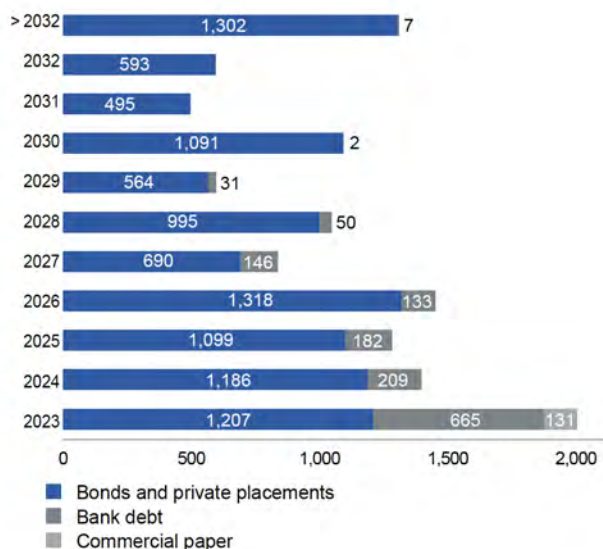
At December 31, 2022, Air Liquide Finance had granted to Group subsidiaries, directly or indirectly, the equivalent of 12.6 billion euros in loans and received 3.1 billion euros in excess cash as deposits from them. These transactions were denominated in 24 currencies (mainly the euro, US dollar, Japanese yen, Singapore dollar, Chinese renminbi, British pound, Canadian dollar, Australian dollar). Approximately 400 subsidiaries are included in the Group cash pooling, directly or indirectly (including subsidiaries where cash pooling is carried out locally before being centralized at Air Liquide Finance).

Debt maturity and schedule

The **average of the Group’s debt maturity** was **5.9 years** at December 31, 2022, a slight decrease compared to December 31, 2021 (6.0 years). Due to the generation of net cash flow in 2022, bond issues reached maturity without the need for refinancing and the new 2022 bond was issued with a long 10 year maturity.

The following chart shows the Group’s debt maturity schedule. The single largest annual maturity represents approximately 12% of total debt.

DEBT MATURITY SCHEDULE



5. Performance Indicators

Performance indicators used by the Group that are not directly defined in the financial statements have been prepared in accordance with the AMF position 2015-12 about alternative performance measures.

The performance indicators are the following:

- Currency, energy and significant scope impacts;
- Comparable sales change and comparable operating income recurring change;
- Operating margin and operating margin excluding energy;
- Operating income recurring before depreciation and amortization excluding IFRS 16 at 2015 exchange rate to calculate the carbon intensity;

- Reported and restated CO₂ emissions;
- Recurring net profit Group share;
- Recurring net profit excluding currency effect;
- Net Profit Excluding IFRS 16;
- Net Profit Recurring Excluding IFRS 16;
- Efficiencies;
- Return on Capital Employed (ROCE);
- Recurring ROCE.

DEFINITION OF CURRENCY, ENERGY AND SIGNIFICANT SCOPE IMPACTS

Since industrial and medical gases are rarely exported, the impact of currency fluctuations on activity levels and results is limited to euro translation impacts with respect to the financial statements of subsidiaries located outside the euro zone. The **currency effect** is calculated based on the aggregates for the period converted at the exchange rate for the previous period.

In addition, the Group passes on variations in the cost of energy (electricity and natural gas) to its customers via indexed invoicing integrated into their medium and long-term contracts. This indexing can lead to significant variations in sales (mainly in the Large Industries Business Line) from one period to another depending on fluctuations in prices on the energy market.

An **energy impact** is calculated based on the sales of each of the main subsidiaries in Large Industries. Their consolidation allows the determination of the energy impact for the Group as a whole. The foreign exchange rate used is the average annual exchange rate for the year N-1. Thus, at the subsidiary level, the following formula provides the energy impact, calculated for natural gas and electricity respectively:

Energy impact = Share of sales indexed to energy year (N-1) x (Average energy price in year (N) - Average energy price in year (N-1))

This indexation effect of electricity and natural gas does not impact the operating income recurring.

The **significant scope effect** corresponds to the impact on sales of all acquisitions or disposals of a significant size for the Group. These changes in scope of consolidation are determined:

- for acquisitions during the period, by deducting from the aggregates for the period the contribution of the acquisition;
- for acquisitions during the previous period, by deducting from the aggregates for the period the contribution of the acquisition between January 1 of the current period and the anniversary date of the acquisition;
- for disposals during the period, by deducting from the aggregates for the previous period the contribution of the disposed entity as of the anniversary date of the disposal;
- for disposals during the previous period, by deducting from the aggregates for the previous period the contribution of the disposed entity.

Note: exceptionally, the acquisition of Sasol production units in 2021 had an impact in 2 steps on Group sales. After the acquisition of the assets in June 2021 (1st step), devices were installed on the units in 2022 in order to measure the energy consumed which, from October 2022 (2nd step), could be re-invoiced to the customer according to the standard Large Industries contractual frame. For the sake of transparency in financial communication, sales related to energy consumed and contractually re-invoiced to the customer are identified within the significant scope and are therefore excluded from the comparable growth. This element will thus be accounted for in the significant scope during 12 months from October 2022.

CALCULATION OF PERFORMANCE INDICATORS (YEAR)

Comparable sales change and comparable operating income recurring change

Comparable changes for sales and operating income recurring **exclude the currency, energy and significant scope impacts described above.**

For 2022, the calculations are the following:

(in millions of euros)	FY 2022	FY 2022/2021 Published Growth	Currency impact	Natural gas impact	Electricity impact	Significant scope impact	FY 2022/2021 Comparable Growth
Revenue							
Group	29,934	+28.3%	1,339	2,503	1,080	58	+7.0%
Impacts in %			+5.8%	+10.7%	+4.6%	+0.2%	
Gas & Services	28,573	+28.3%	1,300	2,503	1,080	59	+6.1%
Impacts in %			+5.8%	+11.3%	+4.8%	+0.3%	
Operating Income Recurring							
Group	4,862	+16.9%	255	—	—	12	+10.5%
Impacts in %			+6.1%	—	—	+0.3%	
Gas & Services	5,062	+16.0%	246	—	—	12	+10.2%
Impacts in %			+5.5%	—	—	+0.3%	

Operating margin and operating margin excluding energy

The operating margin is the ratio of the operating income recurring divided by revenue. The operating margin excluding the energy impact corresponds to operating income recurring (which is not impacted in absolute value by the energy costs contractually re-invoiced to Large Industries customers) divided by revenue restated for the energy impact to which the corresponding currency impact is attached. The ratio of operating

income recurring divided by revenue (whether restated or not for the energy impact) is calculated with a one decimal place rounded number. The variation between 2 periods is calculated as the difference between these rounded ratios, which can result in positive or negative differences compared to a more precise calculation, due to rounding.

		FY 2022	Natural gas impact ^(a)	Electricity impact ^(a)	FY 2022, excluding energy impact
Revenue	Group	29,934	2,541	1,073	26,320
	Gas & Services	28,573	2,541	1,073	24,959
Operating Income Recurring	Group	4,862	—	—	4,862
	Gas & Services	5,062	—	—	5,062
Operating Margin	Group	16.2%	—	—	18.5%
	Gas & Services	17.7%	—	—	20.3%

(a) Including the currency impact linked to the considered energy impact.

Operating income recurring before depreciation and amortization excluding IFRS 16 at 2015 exchange rate to calculate the carbon intensity

(in millions of euros and thousands of tonnes)	2015	2022	2015/2022 change
(A) Operating income recurring before depreciation and amortization	4,033	7,328	
(B) Currency impact (2015) ^(a)		(67)	
(C) IFRS 16 Impact ^(b)		252	
(A) - (B) - (C) = (D) EBITDA used for Carbon Intensity calculation	4,033	7,143	
(E) CO ₂ -equivalent emissions (Scopes 1 + 2) ^(c) in thousands of tonnes	29,413	39,306	
Carbon Intensity (E) / (D)	7.3	5.5	-25%

(a) At 2015 exchange rate excluding Argentina and Türkiye due to the hyperinflationary context in Argentina (EBITDA of Argentina and Türkiye conserved at 2022 rate).

(b) The IFRS 16 impact on operating income recurring before depreciation and amortization includes the neutralization of rental expenses, which are then reintegrated into depreciation and amortization and other financial expenses booked in relation to IFRS 16.

(c) Scope 2 emissions calculated from the specific supplies ("market-based"): the Group hence adopted the methodology recommended by the GHG Protocol.

Reported and restated CO₂ emissions

(in thousands of metric tonnes of CO ₂ -eq.)	2020	2021	2022
Scope 1: total direct Greenhouse Gas (GHG) emissions ^(a)	15,345	15,536	16,273
Scope 2: total indirect GHG emissions ^(a)	17,184	20,829	23,033
Total emissions as reported ^(a)	32,529	36,364	39,306
Total restated emissions ^(b)	39,564	40,085	39,464

(a) "Market based", actual Group emissions including changes in scope (upwards and downwards) having an impact on CO₂ emissions during the year from the effective date.

(b) "Market based", restated to take into account over a full year from 2020 and each subsequent year, the emissions of the assets which correspond to changes in scope (upwards and downwards) and which have a significant impact on CO₂ emissions.

Recurring net profit group share and recurring net profit group share excluding currency impact

The recurring net profit Group share corresponds to the net profit Group share excluding exceptional and significant transactions that have no impact on the operating income recurring.

	FY 2021	FY 2022	2022/2021 variation
(A) Net Profit (Group Share) - As Published	2,572.2	2,758.8	+7.3%
(B) Exceptional and significant transactions after-tax with no impact on OIR			
■ Exceptional value loss and provisions on Russian activities ^(a)		(575.6)	
■ Exceptional income related to joint-venture take-over in Asia-Pacific ^(a)		205.5	
■ Provision for risks in Engineering & Construction activity		(32.8)	
(A) - (B) = Net Profit Recurring (Group Share)	2,572.2	3,161.7	+22.9%
(C) Currency impact		143.6	
(A) - (B) - (C) = Net Profit Recurring (Group Share) excluding currency impact		3,018.1	+17.3%

(a) The majority of which is non-taxable.

Net profit excluding IFRS 16 and net profit recurring excluding IFRS 16

Net profit excluding IFRS 16:

	FY 2021	FY 2022
(A) Net Profit as Published	2,691.9	2,903.9
(B) = IFRS 16 Impact ^(a)	(13.3)	(15.6)
(A) - (B) = Net Profit excluding IFRS 16	2,705.2	2,919.5

(a) The IFRS 16 impact includes the reintegration of leasing expenses less depreciation and other financial expenses booked in relation to IFRS 16.

Net profit recurring excluding IFRS 16:

	FY 2021	FY 2022
(A) Net Profit as Published	2,691.9	2,903.9
(B) Exceptional and significant transactions after-tax with no impact on OIR	0.0	(402.9)
(A) - (B) = Net Profit recurring	2,691.9	3,306.8
(C) IFRS 16 Impact ^(a)	(13.3)	(15.6)
(A) - (B) - (C) = Net Profit recurring excluding IFRS16	2,705.2	3,322.4

(a) The IFRS 16 impact includes the reintegration of leasing expenses less depreciation and other financial expenses booked in relation to IFRS 16.

Efficiencies

Efficiencies represent a sustainable cost reduction resulting from an action plan on a specific project. Efficiencies are identified and managed on a per project basis. Each project is followed by a team composed in alignment with the nature of the project (purchasing, operations, human resources...).

Return on capital employed – ROCE

Return on capital employed after tax is calculated based on the Group's consolidated financial statements, by applying the following ratio for the period in question.

For the numerator: net profit excluding IFRS 16 - net finance costs after taxes for the period in question.

For the denominator: the average of (total shareholders' equity excluding IFRS 16 + net debt) at the end of the past three half-years.

<i>(in millions of euros)</i>		FY 2021	H1 2022	FY 2022	ROCE Calculation
		(a)	(b)	(c)	
Numerator (c)	Net Profit Excluding IFRS16			2,919.5	2,919.5
	Net Finance costs			(288.4)	(288.4)
	Effective Tax Rate ^(a)			25.0%	
	Net Finance costs after tax			(216.4)	(216.4)
	Net Profit - Net financial costs after tax			3,135.9	3,135.9
Denominator ((a)+(b)+(c))/3	Total Equity Excluding IFRS16	22,039.6	23,942.0	24,628.5	23,536.6
	Net Debt	10,448.3	12,009.9	10,261.3	10,906.5
	Average of (total equity + net debt)	32,487.9	35,951.9	34,889.8	34,443.1
ROCE					9.1%

(a) Excluding non-recurring tax impact.

Recurring ROCE

The recurring ROCE is calculated in the same manner as the ROCE using the recurring net profit excluding IFRS 16 for the numerator.

<i>(in millions of euros)</i>		FY 2021	H1 2022	FY 2022	Recurring ROCE Calculation
		(a)	(b)	(c)	
Numerator (c)	Net Profit Recurring Excluding IFRS16			3,322.4	3,322.4
	Net Finance costs			(288.4)	(288.4)
	Effective Tax Rate ^(a)			25.0%	
	Net Finance costs after tax			(216.4)	(216.4)
	Recurring Net Profit Excluding IFRS16 - Net financial costs after tax			3,538.8	3,538.8
Denominator ((a)+(b)+(c))/3	Total Equity Excluding IFRS16	22,039.6	23,942.0	24,628.5	23,536.6
	Net Debt	10,448.3	12,009.9	10,261.3	10,906.5
	Average of (total equity + net debt)	32,487.9	35,951.9	34,889.8	34,443.1
Recurring ROCE					10.3%

(a) Excluding non-recurring tax impact.

6. Environment and Society

The extra-financial indicators monitored by the Group as part of the ADVANCE strategic plan are detailed in the Integrated Report included below (Chapter 1).

The Extra-financial Performance Declaration is presented in Chapter 5 of this Universal Registration Document.

6.1. ENVIRONMENT

Air Liquide acknowledges the importance and urgency of climate issues. The Group's ambition is to participate in achieving the Paris Agreement, which sets a global framework designed to avoid dangerous climate change by limiting global warming well below 2°C compared with pre-industrial levels.



CLIMATE INITIATIVES



Air Liquide believes the major challenges of our society can be overcome through an active and constructive dialogue.

This is why Air Liquide has become an active member of the TCFD (Task Force for Climate-related Financial Disclosures), a working group which brings together institutional investors, audit firms and listed companies whose aim is to formulate recommendations on information to be provided, on a voluntary basis, relating to the financial risks associated with changes to the climate. **Air Liquide has also declared its support for the TCFD.**



The Sustainability Accounting Oversight Board (SASB) is a non-profit organization created in 2011, producing sustainable development reporting standards by industry sector.

The SASB takes the following elements into account when establishing its standards: environment; social capital; human capital; innovation and economic model; and leadership and governance.

Cross-reference tables are available in Chapter 5 pages 392 to 394 of the present Universal Registration Document which show the relationships between the recommendations from TCFD and SASB and the Air Liquide various initiatives and actions taken by Air Liquide.

CO₂ emissions inflection is one of ADVANCE's 3 strategic objectives. Accordingly, the ADVANCE strategic plan published in March 2022 reaffirms the ambition announced in 2021 to reach carbon neutrality by 2050, with two intermediary steps: starting to reduce its absolute CO₂ emissions around 2025, then reaching a -33% decrease of its Scope 1 and Scope 2 emissions by 2035 compared to 2020⁽¹⁾. Moreover, the Group also maintained its existing objective to reduce by -30% its carbon intensity by 2025 compared to 2015⁽²⁾.



Air Liquide's Scope 1 & 2 CO₂ emissions reduction target for 2035 has been **validated by the Science Based Target (SBTi) initiative as being compliant and in line with climate science**^(a). The Group was the first in its industry to obtain this validation from the SBTi.

^(a) Air Liquide announced its greenhouse gas emission reduction objectives for Scopes 1 and 2 in March 2021 on a 2020 baseline. Following the acquisition of the Sasol air separation units in South Africa on June 24, 2021, Air Liquide submitted to SBTi a target on a 2021 baseline in order to integrate this significant change in scope (see page 357).

To achieve the decarbonization of its assets, the Group has now set up processes to measure and control its CO₂ emissions on a quarterly basis. Each geography of the Group has been allocated a yearly carbon budget and each new project is evaluated against the global trajectory of decarbonization.

The Group's scopes 1 and 2 **CO₂ emissions** in 2022 totaled **39 million metric tonnes of CO₂-equivalent**. CO₂ emissions⁽¹⁾ in 2022 changed by -0.3% compared to the 2020 baseline⁽¹⁾. CO₂ emissions⁽¹⁾ thus remained **stable for the second consecutive year**, in line with the ADVANCE plan's target of reaching an **inflection point in 2025** before initiating a downward trend **towards carbon neutrality in 2050**. In 2022, the Group

continued to deploy the levers defined in the ADVANCE plan in order to align with the CO₂ trajectory. Thus, several contracts (PPAs) to supply 350 MW of **renewable electricity** capacity were signed in 2022 in the Netherlands, Italy, Germany and South Africa. In addition, a number of **energy efficiency** projects were decided, as well as the electrification of two ASUs in China ultimately reducing the Group's emissions by approximately -1%. Lastly, the Group is developing **CO₂ capture projects** (selected for subsidies) on existing hydrogen production units.

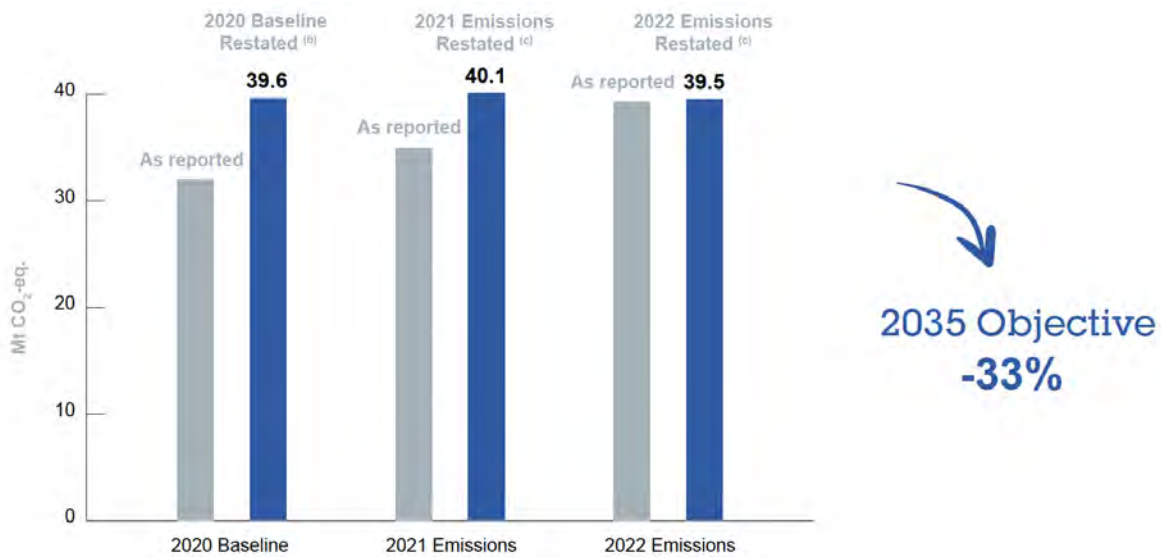
The Group's **carbon intensity** remained stable at **5.5 kg of CO₂-equivalent per euro of EBITDA**⁽²⁾.

⁽¹⁾ In tonnes of CO₂-equivalent of Scopes 1 and 2, using a "market-based" methodology (see methodology for calculating scopes in paragraph 2.2.4 of the Annual reporting section of chapter 5, pages 426 and 427), restated to take into account over a full year from 2020 and each subsequent year, the emissions of the assets which correspond to changes in scope (upwards and downwards) and which have a significant impact on CO₂ emissions.

⁽²⁾ In kg CO₂-equivalent/euro of Operating income recurring before depreciation and amortization and excluding IFRS 16 at 2015 exchange rates for Scopes 1 and 2 of greenhouse gas emissions using a "market-based" methodology (see methodology for calculating scopes in paragraph 2.2.4 of the Annual Reporting section of chapter 5, pages 426 and 427, as well as reconciliation in paragraph Performance indicators of chapter 1, page 61).

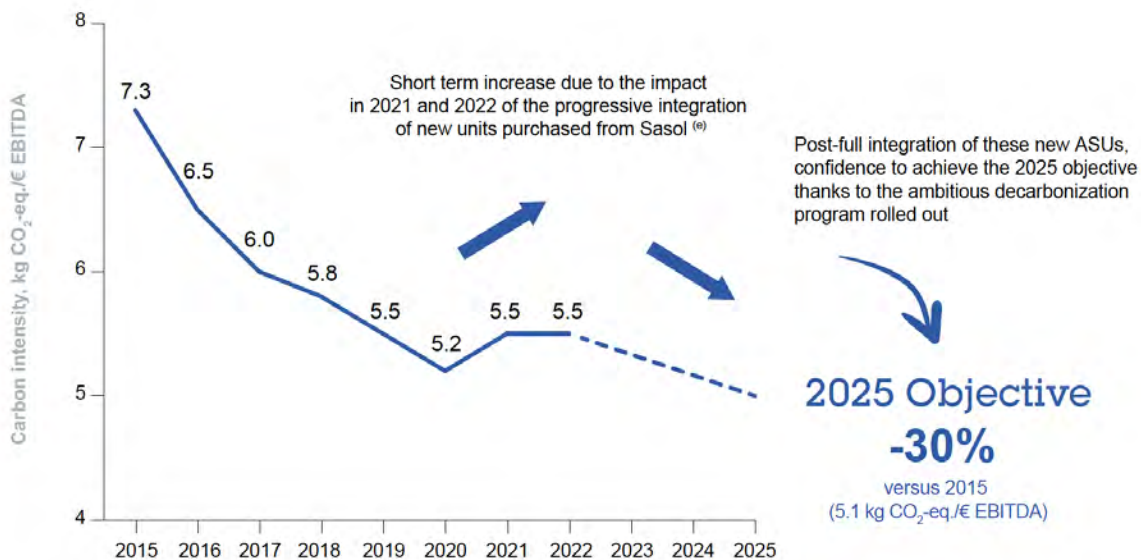
The evolutions of greenhouse gas emissions in absolute value and of the carbon intensity are presented in the following graphics.

Reduce our **absolute emissions** ^(c) by **-33%** by 2035, vs. 2020



- (a) All absolute emissions figures in million tonnes of CO₂-equivalent Scopes 1 and 2 emissions, using a “market-based” methodology, (see methodology for calculating scopes in paragraph 2.2.4 of the Annual Reporting section of chapter 5, pages 426 and 427).
- (b) 2020 baseline restated to take into account over the full year the emissions of the assets which correspond to changes in scope (upwards and downwards) and which have a significant impact on CO₂ emissions.
- (c) Emissions restated to take into account over a full year from 2020 and each subsequent year, the emissions of the assets which correspond to changes in scope (upwards and downwards) and which have a significant impact on CO₂ emissions.

Reduce our **carbon intensity** ^(d) by **-30%** by 2025, vs. 2015



- (d) In kg CO₂-equivalent/euro of Operating income recurring before depreciation and amortization and excluding IFRS 16 at 2015 exchange rates for Scopes 1 and 2 of greenhouse gas emissions using a “market-based” methodology (see definition of Scopes in paragraph 2.1.1 of Extra-financial Performance Declaration, page 354, and methodology for calculating scopes in paragraph 2.2.4 of the Annual Reporting section of chapter 5, pages 426 and 427, as well as reconciliation in paragraph Performance indicators of chapter 1, page 61).
- (e) Following the take-over of the Sasol Oxygen Units in South Africa on June 24, 2021, the carbon Intensity of the Group increases in 2021 (half-year impact, as from the acquisition date) and 2022 (full-year impact) compared to 2020. However, given the ambitious decarbonization plan of the Group, including for the Sasol project, this does not compromise the -30% intensity reduction objective by 2025 vs. 2015 baseline.

A summary of the Group’s greenhouse gas emissions is shown on page 354 of Chapter 5.

Other environmental objectives

Decarbonizing the planet is a strategic pillar for the Group. On a broader level, Air Liquide is responsible for preserving the environment, particularly water resources and biodiversity.

Air Liquide published its policy and objectives regarding water management in 2021 and began its deployment in 2022 (see the Water section in the Environmental challenges of this chapter, from page 368).

After an in-depth analysis of the impacts and dependencies of its products and supply chain on biodiversity, Air Liquide formalized a more detailed framework in 2022, which led it to make its first commitments to preserving biodiversity (see the Biodiversity section in chapter 5, from page 371).

6.2. SOCIETY

In 2022, Air Liquide brings together 67,100 women and men of more than 150 nationalities in 73 countries ⁽³⁾. The Group's commitment to society is reflected in particular by a "zero accident" safety ambition and by the implementation of actions to achieve the following objectives:

- **35% of women among managers and professionals** by 2025;
- **100% of employees to benefit from a common basis of care coverage** by 2025;
- **100% of employees will have the opportunity to engage in local initiatives to support communities** by 2025.

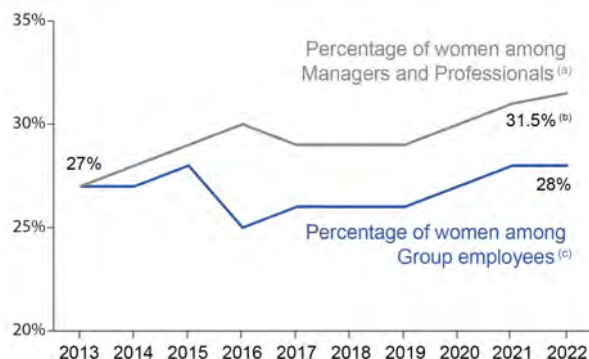
Gender diversity

At Group level, the objective is to increase diversity within the managerial population to strengthen the balance between men and women and better promote the many cultures found within the Group. An inventory was carried out by the local entities to define a target at cluster (groups of countries) level and thus contribute to the overall target.

2025 Goals	2022 Results
35% of women among Group managers and professionals.	31,5% ^(a) of women among Group managers and professionals.

(a) The share of women among "Managers and Professionals" is rounded off in increments of 0.5%.

PROPORTION OF WOMEN AMONG MANAGERS AND PROFESSIONALS



(a) Including Airgas since 2017.

(b) The share of women among "Managers and Professionals" is rounded off in increments of 0.5%.

(c) Including Airgas since 2016.

Common basis of care coverage

Air Liquide, which is present in 73 countries ⁽³⁾, manages a range of different situations in terms of care coverage for its employees. As a responsible employer, the Group is committed to providing a common basis of care coverage to all its employees by 2025.

This common basis of care coverage guarantees:

- death and disability insurance in case of unexpected events;
- healthcare coverage, including hospital inpatient and outpatient care;
- maternity leave of at least 14 weeks.

The proportion of the 67,100 Group employees benefiting from a common basis of care coverage reached 42% and increased by +8 points compared to 2021. In 2022, each zone drew up a roadmap to reach the target set at 100 % in 2025.

2025 Objectives	2022 Results
100% of Group's employee under a common basis of care coverage.	42% of Group's employee under a common basis of care coverage.

Commitment to communities

Air Liquide acts as a committed corporate citizen concerned with the general interest, where the Group's contribution can make a difference, in particular by taking action in communities, or for example by developing initiatives to promote access to medical oxygen.

2025 Objectives	2022 Results
100% of employees with access to volunteer initiatives as part of the Citizen at Work program.	43% of employees with access to volunteer initiatives as part of the Citizen at Work program.

⁽³⁾ Excluding Russia, where the entities are in the process of being divested. They are no more consolidated following the loss of control on September 1st, 2022.

7. Innovation

7.1. FOCUSING ON GROWTH MARKETS IDENTIFIED IN ADVANCE

The Group's spending on innovation amounted to 308 million euros in 2022. Innovation spending corresponds to the OECD definition, namely research and development, market launch and marketing expenses for new offerings and products.

This amount, which has increased steadily over 10 years, illustrates the Group's commitment to develop and maintain a balanced portfolio of innovations, enhancing its operational excellence and sustainable growth.

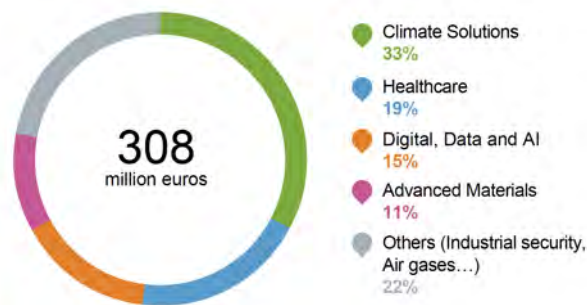
In 2022, 3,600 employees work in entities dedicated to innovation, contributing to the development and marketing of new offers and products.



Innovation and technologies are a driving force of ADVANCE, the Group's strategic plan for 2025, and contribute to the opening of new markets and progress. The innovation strategy of Air Liquide is based on two objectives: **contributing to the Group's operational excellence and creating new profitable and sustainable offers**, in its traditional businesses and beyond.

Within ADVANCE, innovation efforts continued, focusing on **climate solutions, digital, healthcare transformation, advanced materials in electronics and deep tech** to gain **impact** and encourage the **replication** of offers that meet customer and patient needs.

BREAKDOWN OF INNOVATION SPENDING IN 2022



Patented inventions contribute to the Group's competitiveness and differentiation of its offers, and illustrate its capacity for technological innovations. With **350 new inventions** filed as first patent applications in 2022 in several geographies, Air Liquide is the **leading applicant for new patents in its industry**. Within its portfolio of climate technology solutions, Air Liquide has more

than **400 international patent families on hydrogen in 2022**, an increase of more than 50% over the last three years. Air Liquide's global portfolio is made up of **14,000 patent applications and patents**.

7.2. ACCELERATING TIME-TO-MARKET WITH GROUP TEAMS AND EXTERNAL ECOSYSTEMS

7.2.1. Encouraging and growing our employees

The Group encourages and values the **contribution of its employees to innovation**: each year, over 300 people are recognized at a global internal event for their **impactful and innovative solutions**, or for developing Air Liquide's **expertise** in a strategic area. Drawing on our teams' **ability to explore** new technologies, new business models, and to their **proximity** to customers, Air Liquide is committed to **developing its pool of talents** and **expertise** in new areas. In 2022, Air Liquide notably rolled out its internal *AI Readiness* program, aiming to **train 300 employees in Operations in data science and artificial intelligence by 2025**.

7.2.2. Accelerating with the Innovation ecosystems

In an environment marked by profound transformations, the innovation strategy of Air Liquide is part of an **open ecosystem**. Air Liquide relies on its **five Innovation Campuses** (Paris, Frankfurt, Delaware, Shanghai and Tokyo) and its **Campus Technologies Grenoble**. Air Liquide Campuses bring together internal teams as well as customers, suppliers, start-ups and partners to **co-develop innovative solutions and accelerate their time to market**.

6 Campuses
around the world

400 partnerships
with academics, industrial partners and start-ups



7.2.3. Innovating with impact start-ups

ALIAD, the Group’s venture capital entity, taking minority stakes in innovative technology start-ups, has **invested in 40 start-ups since its creation in 2013**. Since 2020, ALIAD has invested over **25 million euros** in impact start-ups, including 15 million euros in the field of energy transition. Through these investments, ALIAD contributes to **ADVANCE, the Group’s strategic plan**. In 2022, ALIAD invested in **Botalys**, a start-up specialized in vertical farming of rare and medicinal plants, allowing to produce ultra-pure and highly bioactive botanical ingredients for the cosmetics and pharmaceutical industries, while avoiding intensive cultivation in fragile environments and reducing the carbon footprint. In 2022, the fund invested again in **Flying Whales**, a start-up developing rigid-structure airships used for the transport of heavy loads, and in **Ekoscan**, a start-up providing ultrasonic inspection solutions to test the mechanical integrity of equipment, enabling predictive maintenance of industrial facilities, without shutting them down.

The Group also has a **deep tech start-up accelerator, Accelair**, located on the Innovation Campus Paris. It offers customized facilities, including offices and secure, equipped, individualized testing laboratories, as well as personalized support from Air Liquide experts. In particular, Accelair hosts **Sirius Space Services**, which is developing a reusable launcher for nano, micro and mini satellites, **Carboneo**, which offers an innovative technology for transforming CO₂ into a raw material for industry, and **Diam Concept**, which produces lab-grown diamonds using hydrogen plasma technology.

7.3. INNOVATIONS FOR THE BENEFIT OF CUSTOMERS, PATIENTS AND SOCIETY

7.3.1. Climate solutions opening up new markets

The innovation capacity and technological know-how of Air Liquide’s teams enable the Group to offer **cleaner and more sustainable solutions** to reduce its own emissions and those of its industrial customers, and are helping to meet the Group’s objective to be carbon neutral by 2050 (see page 38).

Liquid hydrogen: Support the clean mobility

In 2022, Air Liquide inaugurated its **largest liquid hydrogen production unit in the world** in the United States, in Nevada. With a production capacity of **30 tonnes of liquid hydrogen per day**, this new unit aims to meet the growing need for **clean mobility**, but will also provide hydrogen to a wide range of customers in various industries in California. This new facility will be able to produce **renewable hydrogen** through its renewable electricity supply and renewable natural gas contracts.

 30 tonnes of hydrogen produced per day to fuel over 40,000 fuel cell vehicles in California

 Commissioned in April 2022

 Zero CO₂ and zero particle emitted at the point of use

In 2022, Air Liquide developed and installed a liquid hydrogen distribution station to refuel a **long-distance truck prototype developed by Daimler Truck** in Worth, Germany. As a world premiere, operating the trucks on liquid hydrogen will significantly improve the refueling process, with distribution to the truck occurring in 15 minutes at -245°C. Compared to the current use of gaseous hydrogen, using liquid hydrogen will **double the range of long-distance trucks** up to 1,000 km, to achieve comparable performance to a conventional diesel truck, while avoiding CO₂ emissions.

 Heavy vehicles: 60% of hydrogen mobility needs by 2030

 15 to 20 million hydrogen trucks by 2050

 Zero CO₂, zero particle and zero noise emitted during the trip

Biomethane: Ongoing development in Europe and the United States and start of the activity in China

In 2022, Air Liquide started the construction of two new production units in the United States, one of which, located in Illinois, will be the **Group's largest biomethane production unit in the world**, with a capacity of **380 GWh** per year. These new units enable Air Liquide to become a significant biomethane production player in the United States, to support its **North-American customers in the transportation and industrial sectors**. In China, Air Liquide operates since 2022 its first biomethane unit in the Jiangsu Province, with a capacity of **75 GWh** per year, to purify biogas from local agricultural waste and inject the resulting biomethane into local urban gas to power homes and to generate electricity locally. In Europe, Air Liquide has started its production unit in Truccazzano, Italy. By converting waste into energy, the Group is fully engaged with the **circular economy approach** thanks to its expertise throughout the biomethane value chain.

 22 biomethane production units worldwide with a production capacity of 1.6 TWh per year

 A production capacity increased by nearly 25% in three years

 Contribution to avoid 471,000 tonnes of CO₂ in the last three years

CO₂ capture: Decarbonizing the cement industry

In 2022, Air Liquide and Lhoist signed an MoU (*Memorandum of Understanding*) to **decarbonize France's largest lime production site** in Rety, Hauts-de-France region, using Air Liquide's innovative and proprietary CO₂ capture technology Cryocap™ *Flue Gas*. This technology will **capture and purify 95% of the CO₂ emitted** by the production of lime from Rety's plant. The CO₂ captured will be transported to a multimodal CO₂ export hub, currently being developed in Dunkirk, and then to the North Sea to be stored, as part of the D'Artagnan project (Project of Common Interest labeled by the European Commission). Air Liquide Cryocap™ technology will thus be used for the first time to decarbonize lime production in France. This Air Liquide technology uses **cryogenics to capture CO₂** from industries that need time to evolve their processes and make them less CO₂ emitting.

 95% of CO₂ emissions captured at the Rety's site

 Start of the project in 2028

 More than 600,000 tonnes of CO₂ emissions avoided per year, equivalent to the annual emissions of about 55,000 households in France

7.3.2. Digital, data and Artificial Intelligence (AI) to serve the operational performance

Digital is part of all the Group's new offers and is **at the heart of all its efficiency initiatives**: while offering a better client, patient and employee experience, it allows more efficient processes to **enhance operational excellence and contributes to the reduction of CO₂ emissions**.

In 2022, Air Liquide continued to deploy **innovative digital solutions** in all its business lines and functions. With seven operational centers managing plants remotely all around the world, the Air Liquide **Smart & Innovative Operations (S/O)** program is now rolled out on more than 200 sites. It relies on data analysis and predictive maintenance solutions to improve the reliability of oxygen, nitrogen and hydrogen plants while **optimizing their energy consumption**.

The **Integrated Bulk Operations program (IBO)** to optimize the end-to-end gas in liquid form supply chain, is currently being deployed with the aim of **reducing the number of kilometers traveled by delivery trucks by 10% by 2025**.

Data and AI for employee safety and facility reliability

Already tested and used in North-East Asia in 2021, the **MyRCA (Root Cause Analysis) solution** consolidates Group Safety and Reliability incidents to identify the causes and analyze them in a structured and collaborative manner. As a global solution, it is an essential source of feedback, thus contributing to the safety and reliability of operations while optimizing the time spent by employees formalizing reports. The solution, currently being rolled out globally, has been adopted by **1,500 users** with almost 2,500 RCAs performed.




 2,500 RCAs performed using a single solution

 Rolled out since 2021

 Contribution to improve the plant reliability and environmental footprint

The digital at the heart of the new Value-Based Healthcare approach

In Healthcare, the digital is key to the Value-Based approach (see page 30), which aims to put patients with chronic diseases at the heart of the care pathway with the objective of improving the quality of life at the best cost for the healthcare system. Digital and data enabled to **personalize patient care paths** by stratifying and segmenting patients based on their predicted adherence to treatment, but also by using new tools, such as **Kairin**, a digital solution combining a **patient application** designed to promote therapeutic adherence, and a platform that facilitates exchanges between **Air Liquide and Healthcare professionals**.

-  1,700 patients benefit from the sleep apnea value offer in Portugal
-  Results of a multi-center clinical study conducted with 5 hospitals and 100 patients expected in April 2023
-  Contribution to the percentage of patients with personalized support plans (treatment adherence and outcome-based care) followed by the Group

<p>3.5 billion data points collected each day at Air Liquide sites worldwide</p>	<p>400 projects using data and AI</p>
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7.3.3. Opening new markets in electronics and with deep tech

Within ADVANCE, Air Liquide continues to develop its **offer of advanced materials** with unique properties, marketed under the enScribe™ brand, while respecting the highest quality standards of the semiconductor industry. To better support its customers, Air Liquide invented the **ZyALD™** molecule, used widely worldwide and greatly enhancing memory efficiency, in terms of both speed and energy consumption. In 2022, the use of enScribe™ range materials allowing etching at a nanoscale, has made it possible to **avoid the emission of 133,000 tonnes of CO₂**.

Deep tech innovations are defined as disruptive solutions built around unique technological or scientific advances, protected by patents or difficult to reproduce. The Group leverages its expertise in **extreme cryogenics** to innovate for its customers and to develop and manufacture its own deep tech solutions.




Ultra-high purity industrial gases: Air Liquide signs long-term contracts in Japan

Air Liquide has launched a phased investment of more than 300 million euros to build, own and operate **four state-of-the-art ultra-high purity industrial gas production units in Japan** to support the strategic growth of two major semiconductor market leaders. These four units, with a production capacity of more than **1.5 billion Nm³** per year of nitrogen and other high purity gases, will enable the Group to avoid the emission of approximately 35,000 tonnes of CO₂ per year.

-  Annual sales of 1.5 billion Nm³ of nitrogen and gases with more than 99% of purity
-  First production unit operational since the end of 2022
-  35,000 tonnes of CO₂ avoided per year, equivalent to the CO₂ emissions associated with the electricity consumed by 11,000 Japanese households per year




Carbon management: Air Liquide and Sogestran join forces to develop technological solutions for CO₂ maritime transport

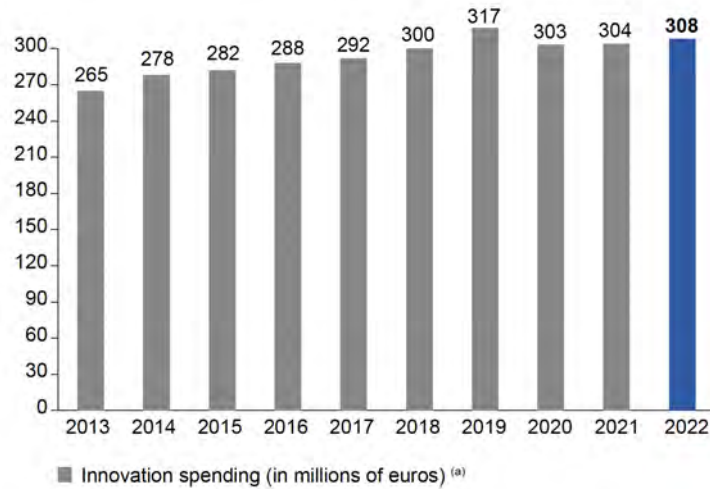
Air Liquide and **Sogestran** have created **OCEOS**, a joint venture that will provide large-scale **liquid CO₂** shipping and barging solutions. These solutions will be tailored to the needs of future **Carbon Capture and Storage (CCS)** projects in Europe and will strengthen Air Liquide's position across the **entire carbon management value chain**. CCS technologies represent one of the fundamental levers for decarbonizing the most carbon-intensive industrial sectors. In this perspective, sea and river transport will be essential to route the CO₂ captured from industrial installations with high CO₂ emissions to sequestration sites, where it will be permanently stored. OCEOS is developing (and then will invest and operate) ships that will allow to safely and efficiently transport liquid CO₂ to storage sites, thus avoiding its emission into the atmosphere. Combined with the Group's CO₂ capture offer, this transport offer will provide a carbon management solution for industrials.

-  A unique carbon management offer for the industry
-  Commissioning of the first ships expected by the end of 2026
-  Contribution to the Group's carbon neutrality objective

Cryogenics: Air Liquide designs the new generation of tanks for the future Vega-E space launcher

As a recognized partner of the space industry for over 50 years, Air Liquide has been commissioned by **Avio** and the **European Space Agency** with the first design phase of the cryogenic tank located in the upper stage of the Vega-E rocket containing liquid oxygen and methane. The cryogenic tank will store oxygen at -182°C and methane at -161°C , thus responding to the **emergence of oxygen-methane propellant** for tomorrow's launchers. Vega-E launchers are scheduled to enter service in 2026 to launch medium class satellites in low-Earth-orbit (LEO) from the Kourou base in French Guiana.

-  A market of more than 250 launches per year in 2030
-  First Vega-E launcher scheduled for 2026
-  Emergence of launchers using biomethane as a propellant



(a) Perimeter effect from 2020 related to the divestiture of Schülke.

OUTLOOK

In 2022, the Group delivered a **strong performance** despite a complex and changing geopolitical, economic and sanitary context. The quality of these published results illustrates the proven **resilience** of the Group's business model, characterized by a very broad diversity of geographies and markets, as well as the remarkable mobilization and responsiveness of its teams to adapt to this volatile environment.

For the Group, 2022 was also marked by the launch of **ADVANCE**, its strategic plan for 2025, which closely combines financial and extra-financial performance. This is already reflected in an **acceleration of the investment momentum**, which will feed the future growth, particularly in low-carbon hydrogen and the transition to a low-carbon society. On the extra-financial level, the Group's CO₂ ⁽¹⁾ emissions remained stable **for the second consecutive year**. This supports the Group's objective of achieving carbon neutrality by 2050.

Air Liquide has delivered another year of **profitable growth: Sales reached 29.9 billion euros**, up **+7% on a comparable basis**, the **operating margin increased by +70 basis points** excluding the energy impact, and **recurring net profit** ⁽²⁾ **rose +17%** at constant exchange rates. At 10.3%, **recurring ROCE** ⁽³⁾ **is higher than 10%**, one year ahead of the target communicated as part of ADVANCE.

All activities are growing significantly: the **Gas & Services** businesses, which represents 95% of the Group's revenue, is up +6.1%, on a comparable basis, the **Engineering & Construction** business by +20.6% and **Global Markets & Technologies** by +25.8%. Within Gas & Services, all the geographies posted growth, in particular the Americas and Asia Pacific. By business line, the increase in sales was notably driven by Industrial Merchant and Electronics.

The Group further improved its operating margin by +70 basis points excluding the energy impact. It generated **significant efficiencies** amounting to 378 million euros and continued its dynamic management of its business portfolio. In a context of a sharp and lasting rise in energy prices, it demonstrated the **strength of its business model**, in which Large Industries contracts are indexed to energy prices, and where its ability to create value allows it to adjust prices for its Industrial Merchant customers.

The **investment decisions** reached a **record level of nearly 4 billion euros**. 12-month **investment opportunities** remain plentiful and total **3.3 billion euros**, out of which more than 40% are **linked to the energy transition**.

Cash flow on sales excluding the energy impact improved by +110 basis points, allowing the Group to finance its investments and pay a dividend, while at the same time reducing its debt. Reflecting the Group's confidence in the future, and following the allocation in 2022 of one free share for every 10 held, the dividend that will be submitted to the shareholders' vote in May amounts to **2.95 euros per share**, i.e. an increase of **+12.2%**.

In 2023, Air Liquide will continue to roll out its ADVANCE strategic plan. The year is expected to be marked by the signing of several major projects in the field of decarbonization and energy transition in Europe and by an acceleration of these opportunities in the United States. Air Liquide is confident in its ability to further increase its operating margin and to deliver recurring net profit growth, at constant exchange rates ⁽⁴⁾.

⁽¹⁾ In metric tonnes of scopes 1 and 2 CO₂-equivalent, "market based", restated to take into account over a full year from 2020 and each subsequent year, the emissions of the assets which correspond to changes in scope (upwards and downwards) and which have a significant impact on CO₂ emissions.

⁽²⁾ Excluding exceptional and significant transactions that have no impact on the operating income recurring.

⁽³⁾ Recurring ROCE based on Recurring Net Profit.

⁽⁴⁾ Operating margin excluding energy passthrough impact. Recurring net profit excluding exceptional and significant transactions that have no impact on the operating income recurring.



2

Risk factors and control environment

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INTRODUCTION

Chapter 2 below covers the description of the risk factors and related management measures referred to in article 16 of Regulation (EU) 2017/1129 dated June 14, 2017 ("Prospectus Regulation III"), as well as the Vigilance Plan pursuant to article L. 225-102-4 of the French Commercial Code.

Moreover, the Extra-financial Performance Declaration (EFPD), as defined by article L. 22-10-36 of the French Commercial Code and published in Chapter 5 of this Universal Registration Document, presents the main extra-financial risks associated with the Group's businesses.

This Universal Registration Document is committed to complying with the various principles governing Prospectus Regulation III, the Vigilance Plan and the EFPD in the following manner:

- material risk factors which are **specific to the issuer**, after taking into account the related management measures (net risks, Prospectus Regulation III), are presented in the "Risk factors and management measures" section of this chapter of the Universal Registration Document – page 76;
- the mapping of **risks relating to the duty of vigilance** complements the Company's mapping by identifying risks that the Company could pose to individuals (in terms of the respect of human rights and fundamental freedoms, health and safety), and to the environment. The most pertinent risks are identified in order to be addressed as a matter of priority through the drafting of prevention, mitigation or remedial measures ("Vigilance Plan" section of this chapter – page 95);
- the EFPD, which is included in Chapter 5 of the Universal Registration Document – page 345, presents the Group's **main extra-financial risks** and the related mitigation policies. Some of these risks, which meet the requirements of Prospectus Regulation III, are included in the "Risk factors and management measures" section of this chapter.

RISK FACTORS AND MANAGEMENT MEASURES

The Group identifies the risk factors to which it is exposed using a formal risk management approach. This presentation of risk factors and related management measures is based on the reference framework of the internal control and risk management system, developed under the supervision of the French financial markets authority (AMF). It was prepared with contributions from several departments (particularly Finance, Sustainable Development, Group Control and Compliance, Legal, Safety and Industrial Systems, etc.).

The risks presented below, at the date of this Universal Registration Document, are the risks that the Group considers may have a significant negative impact on its business, results, outlook, or reputation, should they occur. The list of these risks is, however, not exhaustive and other risks, unknown at the date of this document, could occur and have a negative effect on the Group's business.

As part of its risk management approach, the Group is committed to regularly assessing the risks and reducing the likelihood that

they will occur or their potential impact by implementing internal control and risk management procedures, as well as formalized and specific action plans. These procedures, as well as the Group's codes and policies, are included in a global reference manual, called the **BlueBook**, which is the cornerstone of the Group's internal control system and risk management.

Risk factors are presented below as net risks (taking into account management measures already implemented) and divided into categories according to their nature. In each category, the most significant risk factors are presented first (in bold).

Although the risk categories have not been listed in order of importance, the two most significant specific risks for the Air Liquide Group are both related to its business: these are industrial risks and industrial investment-related risks.

IMPACTS RELATED TO THE COVID-19 PANDEMIC

Since early 2020, the health crisis related to the global spread of covid-19 has increased some risk factors. As a result, the Group has applied adapted management measures in each country and each business.

2022 saw the pandemic stabilize while remaining active, particularly in Asia, with an uneven global economic recovery. In this context, in 2022 the Group maintained the crisis management system put in place at the beginning of 2020, with adaptations

(notably with operational business continuity plans and remote working). The Group has also capitalized on the transfer of experience between geographies.

The impact of the pandemic is not of a nature to call into question the scope and classification of the Group-specific risk factors as presented in this Universal Registration Document.

IMPACTS RELATED TO THE MILITARY CONFLICT BETWEEN RUSSIA AND UKRAINE

Like the health crisis, the military conflict between Russia and Ukraine increases some of the Group's risks or specific categories of risks. As a reminder, prior to the start of the conflict, Air Liquide's presence in Ukraine was limited to commercial and engineering representation for the Engineering & Construction business. The Group's revenue generated in Russia in 2021 was less than 1% of the Group's consolidated revenue.

In the 3rd quarter of 2022, Air Liquide confirmed its intention to withdraw from Russia. As part of a responsible and orderly approach, the Group signed a letter of intent with the local executive management team to transfer its businesses in Russia to this team in the form of an MBO (Management Buy Out). The completion of this project remains subject to the approval of the Russian authorities. At the same time, due to the changing geopolitical context and local constraints, the Group's activities in Russia are no longer consolidated since September 1, 2022.

The financial impacts are detailed in note 1 to the consolidated financial statements – page 270

In this context, the Group has applied management measures adapted to each type of activity, including in particular:

- **Human Resources management-related risks:** in Ukraine, although the business is at a standstill, the Group has reorganized the work of its employees towards projects outside the country thanks to the use of digital tools. External listening and telephone support systems have been set up to provide psychological support to employees interested in such assistance. A certain number of humanitarian initiatives have been initiated and/or supported by the Group, in particular thanks to the commitment of employees through the "Citizen at Work" program and the Air Liquide Foundation.
- **Industrial investment-related risks:** in 2022, the Group's global operations were little affected by the conflict between Ukraine and Russia. Air Liquide complies strictly with international sanctions.

- **Risks related to supplies:** electricity and natural gas are the main raw materials used in the production units. These two energies are impacted by an unprecedented increase in their prices and high volatility. Contracts with major customers are indexed to the price of energy, which considerably limits the impact on the Group's results. However, the consequences of the conflict in Ukraine expose the European entities (mainly German, Dutch and Belgian) to a risk of natural gas rationing. Air Liquide's teams are continuously monitoring the situation (storage levels, financial robustness of its suppliers, potential impacts on its customers, alternative raw materials (naphtha), etc.). In anticipation of any interruption in gas supplies, Air Liquide is implementing action plans in collaboration with its suppliers and customers. Furthermore, some customers may be forced to shut down their activities due to a lack of energy for their plants and processes. The current conflict has also had an impact on the availability of certain molecules (such as krypton and xenon). As far as possible, the Group has reorganized its logistics flows to be able to supply its customers from other sources.
- **Digital risks:** in the current context of the conflict in Ukraine, which is conducive to cyberattacks, the Group has stepped up preventive actions such as intrusion tests on industrial and management systems, and campaigns to raise awareness among teams about the risk of phishing.
- **Regulatory and legal risks:** in response to the conflict in Ukraine, sanctions have been put in place against Russia and Belarus, in particular by the United States, Europe, the United Kingdom and Canada. These sanctions have been followed up by countermeasures from the Russian government. The Group's specialist teams are monitoring these developments. They regularly inform the operational entities and support them in ensuring compliance with applicable laws. The Group seeks the opinions of external advisors and the validation of the French authorities, when necessary.

Although this crisis increases the probability and impact of the aforementioned risk factors, it is not of a nature to call into question the scope and classification of the Group-specific risks as presented in this Universal Registration Document.

Risk categories	Risk factors
	Industrial risks
	Industrial investment-related risks
	Energy sourcing-related risks
Business-related risks	Risks relating to the design and construction of production units
	Innovation-related risks
	Human Resources management-related risks
	Customer risks
	Counterparty and liquidity risks
Financial risks	Foreign exchange risks
	Interest rate risks
	Tax risks
Digital risks	Digital risks
	Climate risks: greenhouse gas emissions
Environmental and societal risks	Climate risks: physical impact on Operations
	Societal risks (discrimination-related)
	Geopolitical risks
Geopolitical, regulatory and legal risks	Regulatory and legal risks

1. Business-related risks

The industrial gas business is characterized by a significant technology content (both in the design phase and the construction of production units), local production units, high capital intensity, and substantial energy requirements.

Various risks are associated with these characteristics. They are mitigated by various factors, which include primarily the diversity

1.1. INDUSTRIAL RISKS

Identification and description of risks

Industrial risks are linked to the various industrial products, processes and distribution methods implemented by the Group. They are distributed over a large number of local production sites.

Over and above the usual risks inherent in all industrial activities, Air Liquide's businesses entail more specific risks relating to:

- products: the intrinsic properties of industrial gases manufactured, transformed or packaged by the Group classifies them in the dangerous materials category; the use of these industrial gases requires specific means of control and protection in order to prevent risks such as:
 - anoxia, associated with inert gases,
 - over-oxygenation or fires, associated with oxygen and oxygen mixtures;
- processes and their operation:
 - cryogenics is used to separate gases by distillation, store them and transport them. This very low-temperature technique is connected with a risk of cryogenic burns from liquefied gases,
 - likewise, high-temperature techniques, which are used in particular in the production of hydrogen, are particularly exposed to risks of burns, fire or explosions,
 - in addition, pressure is central to the Group's processes. Pressurized equipment must be designed with safety devices which limit the risk of accidents caused by an uncontrolled increase of pressure;
- logistics and transportation: each year, delivery vehicles, sales staff and technicians travel hundreds of millions of kilometers. Non-compliance with the traffic regulations or the lack of regular maintenance of vehicles would expose drivers and third parties to increased risks of accidents. In addition, industrial sites use a lot of motorized lifting equipment, which presents specific risks (collision, falling cylinders, etc.). Training and certification are thus required to operate them;
- engineering and construction: industrial risks are factored in and must commence at the design phase of future installations. During the construction phase, the lack of a strict accident prevention framework would affect the coordination among the various stakeholders and expose teams to risks of accidents;
- delivery reliability: the Group is exposed to the risk of faults in the systems supplying gas to customers, which could lead to a disruption to supply, in terms of quality or volumes;
- any failure to comply with specific standards and regulations, in particular in Healthcare, with the risk of non-compliance of products and services provided to customers and patients.

of industries and customers served by the Group, the multiple gas applications that it offers them, as well as the large number of geographical locations in which it operates. In addition, a significant share of business is subject to contracts, a strict investment project authorization and management process, and a tailored energy policy.

Risk management measures

Safety is a fundamental value for the Group and the "zero accidents, on every site, in every region, in every unit" ambition remains a key priority.

The Group is therefore committed to efficiently and under all circumstances reducing the exposure of its employees, subcontractors, suppliers, customers and patients to professional and industrial risks.

The safety results for the past 30-plus years illustrate the long-term effectiveness of the Group's actions in this area.

To manage these risks, the Group has an Industrial Management System (IMS), which operates based on:

- the accountability of the departments of the various Group entities for the effective implementation of this system;
- the issue of key management and organizational procedures that aim to ensure:
 - compliance with standards and regulations,
 - management of skills (training, qualifications if necessary, and more),
 - industrial risk management,
 - hygiene, health and environmental management,
 - road safety management,
 - industrial emergency management,
 - change management,
 - maintenance management,
 - monitoring of suppliers' products and services,
 - installation project management,
 - product development management,
 - management of production and service provision,
 - the analysis and treatment of incidents and accidents,
 - management of industrial audits,
 - the dissemination of shared technical standards within Group entities.

The IMS document base is continuously updated and enriched.

The Safety and Industrial Systems Department and the Industrial Departments of the World Business Lines, under the supervision of a member of the Executive Committee, supervise and control the implementation of the IMS, by notably relying on:

- the presentation of various dashboards designed to monitor performance in terms of safety;
- process audits to verify the implementation conditions and compliance of operations with IMS requirements;
- thorough safety reviews prior to the start-up of any new facility to prevent any accidents due to a construction defect;
- technical audits to ensure the compliance of operations with Group rules.

The evolution of safety performances of operations and of their level of compliance with IMS requirements are regularly monitored by the Executive Committee.

1.2. INDUSTRIAL INVESTMENT-RELATED RISKS

Identification and description of risks

The Group may be exposed to risks specific to its industrial investments. Each investment project may be affected, particularly in its profitability, by the impact of inflation, different factors linked primarily to project location and assessment of the local context, customer quality, good project management by the customer, and particularly the respect of implementation schedules, the competitiveness of the site, the environmental footprint or societal impact of the project, as well as the relevance of the design, the maturity of cost estimates, quality, and meeting construction deadlines and budgets for gas production units, including for suppliers.

Moreover, in new emerging markets such as those related to energy transition, the Group may be exposed, in addition to the above-mentioned risks, to risks related to the degree of maturity of some of these market segments or in certain geographies.

Risk management measures

The BlueBook's Operations control policy sets out the principles of the strict control of the Group's industrial investments and its commitments, the implementation of which is set out in the investment decisions procedure. The latter includes in particular:

- a detailed review and approval process of investment requests based on very strict assessment criteria that include in particular consideration of the environmental impact of projects, as well as of any associated medium- and long-term contractual commitments, within the Resources and Investment Committees (described on page 45);
- control of investment decisions through the specific follow-up of authorizations granted as well as contributions expected and seen during the initial years. In addition, the subsidiaries are obliged to report (above certain thresholds) all budget overruns and implement corrective action plans aimed at ensuring the profitability of the investments concerned; for the largest ones, they are supported by teams of experts ("Group Capital Implementation" teams) in order to secure good preparation and execution in particular for the largest projects;
- more in-depth analysis of the profitability of certain major investments (comparative analysis prior and subsequent to completion).

1.3. ENERGY SOURCING-RELATED RISKS

Identification and description of risks

Electricity and natural gas are the main raw materials used by production units. Their availability is thus essential to the Group. Where the local market permits, Group subsidiaries secure the energy sourcing through medium- to long-term supply commitments and competitive bidding scenarios with local suppliers with the objective of achieving the most reliable and competitive energy costs, with a low-carbon footprint, available on the market.

Risks to which the Group is exposed when sourcing raw materials relate to:

- energy supply (access and reliability, in particular counterparty risk, etc.);
- volumes (non-compliance with obligations and commitments on volumes, etc.);
- prices (volatility, competitiveness, etc.);
- compliance with current regulations (market transparency rules, Sapin 2 Law, etc.);
- changes in local regulations on energy and its deregulation;
- their carbon footprint.

Financial risk relating to raw materials is described in note 25.1 to the consolidated financial statements on page 305.

Moreover, and in addition to energy, the Group may be temporarily exposed to supply shortages for certain molecules which are only produced at a limited number of sites, in particular with worldwide reach, such as helium and rare gases.

Risk management measures

Due to the geographic spread of Group activities, its supply contracts are diversified.

The management of exposure to specific energy-sourcing risks is described in the Group's Energy management policy and is based on two principles:

- energy purchasing must exclusively cover internal production needs ("own-use");
- entities pass on energy cost fluctuations to their customers via indexed invoicing integrated into their medium- and long-term gas supply contracts. The risks of supplier shortages/default are also covered by Force Majeure clauses in customer contracts.

The Group works to maintain these principles in the context of the supply of low-carbon industrial gases produced from renewable energy (for which new risks must be taken into account: long-term commitment, fixed price, intermittency, management of environmental certificates, etc.).

The "E-Enrisk" Group Energy & Emissions Risk Management Committee reviews the energy sourcing strategies of the entities, examines the most significant commitments submitted to it and ensures proper implementation of the climate objectives through the review of strategies to decarbonize production assets (both for investment decisions and for existing assets).

Each month, this E-Enrisk Committee brings together the Vice President in charge of the Large Industries World Business Line, the Energy Director, the Group Finance and Treasury Director as well as the Director in charge of Accounting policies and procedures, and the Sustainable Development Director. Meeting minutes are sent to all Executive Committee members.

Moreover, risks relating to the sourcing of certain molecules produced at a limited number of sites with worldwide reach are managed by a strategy of diversifying sources, storing molecules and securing procurement through long-term contracts.

1.4. RISKS RELATING TO THE DESIGN AND CONSTRUCTION OF PRODUCTION UNITS

Identification and description of risks

Air Liquide's engineering team designs and builds production units worldwide which are primarily intended for Group investments, but also for third-party customers.

As these projects generally extend over several years, they are exposed, at their various stages, to risks relating to design, purchasing, transport or construction and more generally the overall quality, schedule and costs. Risks relating to these projects are often greater during the construction phase, in particular for turnkey projects:

- the quality and delivery times for critical equipment, on the one hand, and on-site construction costs and deadlines on the other may give rise to project start-up setbacks and impact project profitability;
- unexpected technical difficulties may also arise, in particular when a new innovative process is implemented;
- certain projects are located in regions of the world that may be a source of specific political or economic risks.

Risk management measures

Engineering and project management teams have implemented a risk management system for the development and execution of all its projects (of varying size and complexity and which use different types of technology), which is described in the document specific to this activity, the "Playbook".

This system relies in particular on an Engineering Risk Committee and an Execution Review Board for the project management part. It aims to ensure a good risk assessment throughout the life of the projects as well as the implementation of appropriate management measures:

- during the development stage: by identifying potential threats (but also opportunities) that may have an impact on the project's objectives during the forthcoming execution stage, thus allowing adequate decisions to be made;
- during the execution stage: by continuing to regularly assess and mitigate already-identified risks which could change, occur or disappear, but also by identifying and dealing with any new threats which could have an impact on the contractual commitments, technical integrity or performance of the project right through until its completion.

1.5. INNOVATION-RELATED RISKS

1.5.1. Technology-related risks

Identification and description of risks

The Group operates in a fast-moving environment, with the emergence of new products, new players, new business models and new technologies, thus creating a strong need for technological developments in its main markets, such as hydrogen energy or even Healthcare. These changes may impact the Group's activities or its position in a market. The Group's growth possibilities, therefore, depend on its ability to respond to this change over time.

In terms of digital technologies, the Group is facing remarkable transformation challenges with possible impacts on its business model, its organization and, ultimately, its competitiveness. The risk to which the Group is exposed is linked in particular to the rapid increase in the nature and volume, availability, security and quality of data, whether from customers and patients or its own assets.

Risk management measures

The Group has introduced a dedicated structure to roll out its innovation strategy which focuses on two objectives: contributing to its operational excellence and sustainable growth, based on new offerings, technologies and services. The Innovation and Development Division (IDD) therefore steers the innovation strategy on behalf of the Group's hubs, World Business Lines and operations, and contributes to the Group's sustainable growth.

Drawing on continuous reflection regarding new technologies and new markets, the IDD is responsible for imagining, developing and incubating new solutions through to their launch on the market, in particular when related to offers with major technological content (including digital and IT), all while maximizing their impact and facilitating replication across all of the Group's businesses and geographies. To do this, it relies in particular on the strong exploration capacity of the Group's R&D, its organization as close as possible to its customers with six Campuses on three continents, and its integration in innovation ecosystems.

The Group continually adapts its innovative approach and invests each year in research and development and digital technology. In recent years, it has strengthened its open innovation approach, in particular with the signing of long-term joint development agreements with key partners, regarding:

- the energy transition and preservation of the planet (a significant portion of the innovation spend is allocated to the elaboration of new processes which consume less energy and allow CO₂ emissions to be limited);
- healthcare;
- digital, data and artificial intelligence;
- deep tech (cryogenic equipment, space exploration, etc.)

Five Innovation Campuses and one Technologies Campus, located across the globe, aim to create a connected network which is open to its innovation partners – universities and technology institutes, suppliers, customers and start-ups; the Group thus relies on an ecosystem made up of more than 400 external partners.

The Group has put in place a robust innovation governance process, from idea to market. In particular, it reviews initiatives whose results are not at the expected level – see page 47, and prioritizes initiatives with the highest impact each year.

The Group is introducing digital solutions into its internal operations and as part of its offerings, to improve efficiency and in particular help steer its industrial activities with greater speed and agility. For example, the rollout of Smart & Innovative Operations centers which facilitate the remote management of production at its sites, by drawing on predictive data analysis and artificial intelligence is one illustration of this. Moreover, the rollout of the Integrated Bulk Operations digitization program, aimed at digitizing the liquid products supply chain, provides Industrial Merchant customers around the world with access to a service that guarantees greater reliability and safety, while improving the Group's efficiency and reducing its carbon footprint.

1.5.2. Intellectual property-related risks

Identification and description of risks

The global environment shows particular interest in intellectual property as well as, in certain jurisdictions, greater attention to the protection of trade secrets. The Group's business is not significantly dependent on technologies patented by third parties; it relies mainly on technologies, processes, designs and software developed internally, in particular by its Innovation, Digital & IT, Engineering & Construction teams, its World Business Lines, and Operations teams. Innovation is also increasingly achieved in partnership with third parties; the Group develops certain innovative businesses through partnerships, buying shares in innovative entities, or acquisitions.

Limitations on the Group's ability to protect, retain or enforce its intellectual property rights, including its trade secrets, could result in a loss of revenue and any competitive advantage that the Group holds. Third parties may also be able to develop an independent technology similar to that of Air Liquide without infringing its intellectual property rights or having access to its trade secrets, which could harm the Group's financial position or profitability.

Air Liquide, through its technologies, processes, designs and software, always makes sure to respect the intellectual property rights of others. If a third party claims otherwise and in the event of litigation, regardless of the merits, such claims generally result in significant legal costs, including potential damage to the Group's reputation. Risks may also arise in the treatment of confidential information, including trade secrets, of third parties in the Group's day-to-day operational activities or the context of collaborations.

1.6. HUMAN RESOURCES MANAGEMENT RELATED RISKS

Identification and description of risks

The long-term performance of the Air Liquide Group is driven, in particular, by the quality of its employees, their skills and their commitment.

In its businesses, the Group aims to:

- attract and maintain the required skills at the right time and in the right place, in particular in markets where the Group is expanding its activities, or in geographies where the employment market is strained;
- develop skills, in particular with the digitization of its businesses and the emergence of new skills (data science and artificial intelligence, etc.) and new professions (Hydrogen).

The corresponding risks would arise, in particular, from shortcomings in:

- the level or quality of training;
- the management of careers and opportunities; and
- the recognition of performances and contributions, in particular in certain areas of expertise.

In addition to risks relating to skills management, psycho-social risks may also affect the health and level of commitment of Group employees, in particular in the recent context where remote working has been rapidly implemented during periods of lockdown.

Furthermore, Air Liquide contributes to economic and social growth in the 73 countries ⁽¹⁾ where it operates through its technical, industrial, medical and economic activities. The Group, therefore, identifies and applies the applicable laws and regulations, in particular in terms of working conditions and freedom of association.

Risk management measures

Governance relating to intellectual property and related risk management principles are set out in the Group Policy and procedures aimed at:

- ensuring the protection of the Group's intellectual assets, by protecting the Group's inventions, designs, brands and software;
- ensuring that Air Liquide complies with all valid intellectual property rights of third parties in all its areas of activity;
- in the case of partnerships and collaborations with third parties, supporting stakeholders within the Group to manage risks related to intellectual property;
- raising awareness among employees of the risks relating to intellectual property.

To this end, the Group relies on an Intellectual Property Department whose employees are based at the Group's head office and in the main geographic regions.

To the Group's knowledge, there are no legal or arbitration proceedings relating to intellectual property, either current or threatened, which may have or have had, in the past 12 months, significant impacts on the Group's financial situation or profitability.

Risk management measures

The Group is committed to identifying, attracting and developing the necessary scientific, technical and digital skills required for its growth, the efficient working of its operations and innovation. The Human Resources policy defines the main rules, together with the roles and responsibilities of the different parties in their implementation, with respect to, among others:

- acquisition and sustainability of the necessary skills. Training is provided under the Air Liquide University brand with, in particular, reinforced e-learning courses followed by more than 60,200 users in 2022 in a wide range of domains (ethics and anti-corruption, industrial safety, competition law, digital security, management, etc.). They are the subject of a structured program and are managed by a specific learning management system (LMS);
- supporting employees in their individual development throughout their career, particularly enabled by a centralized career and skills management tool (TMS: Talent Management System) and the communication of career advancement opportunities (TAS: Talent Acquisition System);

It should be noted that Air Liquide has begun a transformation of its HR processes. The Workday software is being deployed in several phases until 2024.

- changes in working methods within the Group. The organization of work must therefore not only meet the demands and expectations of today's employees and of Air Liquide, but also those of tomorrow, while being based on the Group's fundamentals. The result of a co-creation bringing together more than 700 employees, the Group thus deployed in 2020 its new Be Act Engage model, which allows its employees to develop in a safe, ethical and engaging environment to deliver sustainable performance;

⁽¹⁾ Excluding Russia, where the entities are in the process of being divested. They are no more consolidated following the loss of control on September 1st, 2022.

Risk factors and management measures

- measuring and recognizing the performance and contributions of all employees. In addition to employee remuneration and loyalty policies (regular capital increases reserved for employees), specific provisions aimed at promoting and sustaining certain skills, such as inventor and innovator recognition programs, the technical expertise development scheme (Technical Community Leaders) in a wide range of fields such as industrial operations, industrial safety and, since 2019, digital and IT.

More generally, the Group ensures the building of a performance-focused, attractive and collaborative professional environment while also safeguarding the health and well-being of Group employees in their workplace. The measurement and monitoring

1.7. CUSTOMER RISKS

Identification and description of risks

The primary customer risk is the risk of bankruptcy or closure of a customer's production site.

More generally, the business of some of the Group's customers may be interrupted following natural or man-made disasters, including those resulting from changes in weather conditions, pandemics, climate change, or following major political events.

The amount of operating receivables as well as provisions for doubtful receivables are shown in note 17 "Trade receivables" to the consolidated financial statements on page 284.

Risk management measures

The diversity of the Group's geographic presence across 73 countries ⁽²⁾, as well as the industries and sectors in which it works, helps distribute customer risk. The Group's entities serve a very large number of customers (more than two million worldwide) in a broad range of industries: chemicals, steel, metals, refining, food, pharmaceuticals, automotive, healthcare, electronics, photovoltaics, research laboratories, etc.

The Group's largest customer represents 2,2% of revenue, the Group's top 10 customers represent around 15% of revenue and the top 50 customers represent around 35% of revenue.

of the commitment of employees are carried out using an employee feedback tool called "My Voice". Operations and support functions use the results from My Voice to define and implement tailored action plans.

The growth in working from home has increased the use of digital tools to ensure business continuity. Employees' adjustment to this new way of working was facilitated by the existence of a digital and collaborative environment that had already been rolled out within the Group several years ago, as well as the development of virtual training courses covering remote working and team management.

A significant part of the Industrial Gas business is covered by customer contracts, with commitment periods specific to the relevant business line:

- the Large Industries business and a third of the Electronics business mainly rely on 15- to 20-year take-or-pay secured contracts, ensuring a guaranteed minimum revenue and offering strong future cash flow predictability;
- the contracts in the Industrial Merchant business, generally with a duration of one to five years, also include services relating to storage and cylinders over the lifetime of the supply contract;
- in the Healthcare business, positions vary between health systems, with certain countries awarding one to five-year contracts on a regional and pathology basis following invitations to tender.

Finally, the impact on the Group of the risks of customer business interruption following major climatic or political events is limited by the wide diversity of countries in which it operates. This impact can be offset by the necessary recourse to gases or equipment manufactured by the Group in critical situations. Gases are needed to secure industrial or chemical facilities (inert gases), maintain local industrial activity (essential to industrial processes) or even sustain life (medical gases and equipment). The Group's businesses are therefore often protected or prioritized depending on the situation.

2. Financial risks

The Group's financial policy sets out the management principles for the financial risks to which its business is exposed. In this context, the Group has defined and regularly reviews the terms of the financial procedures which forbid speculative transactions notably on financial instruments.

2.1. COUNTERPARTY AND LIQUIDITY RISKS

Identification and description of risks

Counterparty risk primarily relates to trade receivables, outstanding amounts on short-term investments and derivative hedging instruments, and to credit facilities contracted with each bank.

Trade receivables risks relate to receivables on the balance sheet that may remain unpaid in the long term, in particular in the event of the financial hardship of a customer.

Financial decision-making governance is the responsibility of the two Finance Committees (Strategic Finance Committee and Operational Finance Committee), with the former considering issues relating to the financing strategy and the latter dealing with the practical methods of its implementation.

Investment risk is mainly related to short-term deposits in the event that one of the Group's key banks defaults and, to a lesser extent, an impairment loss due to the use of monetary funds for a portion of the portfolio.

⁽²⁾ Excluding Russia, where the entities are in the process of being divested. They are no more consolidated following the loss of control on September 1st, 2022.

Hedging derivative risk relates to the positive market value of transactions which would be lost in the event of the default of one or more counterparties, and the need to substitute new hedges under potentially less favorable conditions.

Finally, the main risk related to credit facilities is that the facility is unavailable in the case of a drawdown.

Note 25.1 to the consolidated financial statements describes counterparty and liquidity risk for the year ended December 31, 2022 (page 303).

Notes 17.1 and 17.2 to the consolidated financial statements provide a breakdown of trade and other operating receivables and allowances for doubtful receivables on page 284.

Risk management measures

With industrial projects and acquisition transactions, customer counterparty risk is one of the key elements assessed by the Resources and Investments Committees.

For long-term contracts, an assessment of a potential customer's credit profile is carried out before any contact is made. This assessment is then taken into account in the payment terms proposed to customers.

For the Group's major customers (around 170 customers, generating 40% of sales), counterparty risk is monitored on a monthly basis using ratings provided by financial rating agencies, or via an internal financial rating when an explicit published rating does not exist. The actual structure of contracts, in particular for Large Industries and Electronics, reduces risks in that these medium- to long-term contracts include safeguarding clauses for the Group.

In certain cases (mainly Europe and the United States), the risk of losses on trade receivables is transferred to the banks through non-recourse factoring programs.

2.2. FOREIGN EXCHANGE RISKS

Identification and description of risks

The Group, due to its international presence, is naturally exposed to foreign currency fluctuations with, on one hand, a transaction risk and, on the other hand, a risk relating to the translation of its financial statements into euros (the Group's reporting currency).

Foreign exchange transaction risk relates, on one hand, to the foreign currency commercial cash flows of operating entities and, on the other hand, cash flows arising from royalties, technical support and dividends.

Translation risk relates to the publication of the Group's financial statements in euros from the entities' financial statements in local currencies, without an impact on the profitability of the Group's businesses.

Note 24.5 to the consolidated financial statements presents net debt by currency on page 300 and note 25.1 to the consolidated financial statements on pages 301 to 305 describes the foreign exchange risk management process, as well as the derivative instruments used and sensitivity to foreign currency exchange rates.

Risk management measures

Since industrial and medical gases are not transported over long distances, most products are manufactured in the country where they are sold. The Group considers that its activities and its profitability have a low level of exposure to currency fluctuations.

Moreover, to reduce risks relating to the default of a financial counterparty, the Group has adopted a conservative approach to its short-term investments and only works with leading banks and financial institutions rated at least A or A2 by Standard & Poor's or Moody's, over the long term, except in exceptional and justified circumstances.

Investments must therefore be made with key banks (i.e. leading banks selected according to their financing resources, their geographical and product coverage, as well as their financial stability), with maturities of less than three months, be highly liquid and have low volatility. The ratings of key banks and risk indicators available on the markets are monitored on a daily basis using real-time financial information services.

Cash pooling with the help of international cash pooling (a daily leveling system towards Air Liquide Finance) and the policy of annual extraction of subsidiaries' dividends also helps limit the amount of local cash in each country.

To minimize the risk relating to the market value of hedging derivatives used to manage currency and interest rate risk and that of fluctuations in raw material and energy prices, the Group works with its key banks on one hand, while also ensuring it diversifies its transactions. These transactions are governed by Framework contracts (Fédération Bancaire Française or International Swaps and Derivatives Association contracts). The Group has decided not to use a collateralization mechanism due to the low average duration of these derivatives and the cash fluctuations that may result from margin call mechanisms.

Finally, in terms of financing, to ensure its development and independence, the Group ensures that it has sufficient and permanent sources of liquidity, meaning adequate financing resources available at any time and at the lowest cost from a large range of key banks and financial markets.

The Group has nevertheless defined methods for hedging its main foreign exchange risks, whether this is borne by the holding companies or the operating entities, in terms of authorized hedging instruments, the decision process and the execution of transactions.

These measures are supplemented by management rules adapted to local circumstances, which are aimed at ensuring compliance and security of transactions and optimizing management.

The application of this financial policy is controlled by the Finance Department. The majority of transactions are executed directly on a centralized basis with the subsidiaries and over-the-counter markets, which is completed by consolidated reports provided by various Group entities on a monthly or quarterly basis, depending on the type of risk.

The activities are managed on the basis of highly separated duties, using a multilateral negotiation platform, cash management software, and a communication platform linked to the international banking communication network "SWIFT". An independent auditor was commissioned in 2021 to assess the Group's level of compliance with the Swift Customer Security Program. The assessment showed that the ecosystem and internal security procedures are in line with Swift requirements.

Risk factors and management measures

Furthermore, the Group provides a natural hedge and reduces its exposure to exchange rate fluctuations by raising debt in the currency of the cash flows generated to repay the debt. Thus, financing is raised either in local currency or, when sales

contracts are indexed in euros or US dollars, in foreign currency (EUR or USD).

2.3. INTEREST RATE RISKS

Identification and description of risks

The interest rate risk is mainly linked to the fluctuation of future cash flows on debt when the rate is variable.

In case of a significant increase in interest rates upon future renewals of bonds, the Group may find itself obliged to devote a more significant portion of cash flows from its operational activities to service its debt.

Note 24.3 to the consolidated financial statements – page 298 presents the fixed-rate portion of debt and note 25.1 to the consolidated financial statements – pages 301 to 305 describes the sensitivity of the Group's financial expenses to interest rate fluctuations and the interest rate repricing schedule for fixed-rate debt and interest rate risk hedging instruments.

Risk management measures

The Group's strategy is to maintain, over a medium- to long-term period, a majority of total debt at fixed rates, notably by using firm or option hedges.

Centralized interest rate hedging methods have also been defined for each major currency in which debt is held (in particular EUR, USD, JPY, and CNY, which represent around 85% of total net debt) including:

- the selection of authorized tools, in particular swaps and interest rate options;
- hedging decision processes;
- methods of executing transactions.

For debt in other currencies, rules have been defined in order to ensure that the transactions initiated to hedge interest rate risk are consistent with Group objectives.

Moreover, pre-hedging transactions for future highly probable issues are regularly implemented to protect the Group against an increase in interest rates.

With few exceptions, all interest rate transactions are centrally processed by Air Liquide Finance, and regularly valued using both internally designed tools and an independent specialized firm.

2.4. TAX RISKS

Identification and description of risks

The Group is exposed to tax risk in certain countries, due to changes in applicable regulations, which may have an impact on its activities or its results. This risk may arise from:

- unfavorable changes in local or international regulations;
- challenges in the application of current regulations or standards;
- errors when completing tax returns;
- regular audits by tax authorities which could lead to disagreements over the interpretation of facts.

Risk management measures

As far as tax is concerned, the Group focuses on complying with laws and regulations. Modifications of laws and regulations are followed and monitored by its Tax Department and its local Finance Departments.

The Group's tax Charter supports its ambition to remain a leader in its sector by acting in a responsible manner, consistent with the Group's long-term growth strategy. Air Liquide has defined the following principles which govern its tax policy, in line with article L. 22-10-36 of the French Commercial Code:

- Group entities must respect the laws and regulations in force, as well as the international standards that affect it such as those of the OECD, in particular on transfer prices;
- Group entities ensure that tax returns and payments are completed in compliance with local regulations. They complete the required tax returns according to the jurisdictions in which the Group operates;
- the Group is committed to acting with integrity in all tax-related matters. It aims to operate in a transparent manner and build constructive, long-term relationships with the tax authorities;

- the Group deals with tax-related matters by banning tax havens and does not make use of shell corporations without economic or commercial substance;
- the Group protects value for its shareholders by taking measures to minimize double taxation phenomena. Furthermore, it acts to minimize fiscal risk. Its tax strategy is in line with the Group's strategy and complies with the Code of Conduct.

Tax policy followed by the Group

Air Liquide applies a tax compliance and transparency policy, guaranteed by the presence of qualified and dedicated teams of tax experts who are up to date with the latest tax reforms and respect the Group's values. The Group is committed to acting with integrity in all tax-related matters. In the countries where it operates, the Group maintains transparent, constructive and long-term relationships with the tax authorities, providing them with the information they need within a reasonable period of time. L'Air Liquide S.A., on its own behalf and on behalf of its integrated French subsidiaries, is the first company to sign the "Fiscal Partnership" with the French tax authorities. By signing this partnership in March 2019, L'Air Liquide S.A. and its subsidiaries have entered a trust-based, transparent relationship with the French tax authorities. This commitment continues without interruption.

The Group ensures that its operations comply with tax regulations, so that it pays an appropriate amount of tax according to the place where the value of its business activity is created, without artificially transferring value within low-tax jurisdictions.

The Group does not use opaque structures or entities in tax havens and does not withhold useful information from the tax authorities. It does not use structures that lack economic or commercial substance.

It applies the arm's length principle to transfer pricing and does not use transfer pricing as a tax planning tool. As the Group's organizational structure is decentralized, its intra-group transactions are very limited and do not represent more than 15% of total sales. The Group applies an intra-group cash flow policy that complies with the OECD principles.

Air Liquide complies with the "Country-by-Country Reporting" (CBCR) obligations.

Organization and governance of the tax function

The subsidiaries' tax affairs are the responsibility of their Finance Departments. Due to their size, some subsidiaries have a specialized Tax Department reporting to the Finance Department, such as in France, the United States, Germany, China, Canada, Italy, Benelux and Spain. In some cases, a geographic hub Tax Department reporting to the hub's Finance Department has been set up to coordinate taxation in several countries, such as in South-East Asia and Africa / Middle East.

All these country or regional Tax Departments have a functional link with the Group's Tax Department, which is based at the head

office. The latter coordinates the network of tax teams, in particular through regular meetings to identify significant issues, provide the appropriate technical support and the necessary guidance. Given that the Group's businesses make it a significant contributor to the tax revenues of the countries in which it operates, and since the Group is subject to a high number of taxes and duties as well as unstable tax regimes in certain countries, the Tax Departments conduct a tax watch.

The Group Tax Department is part of the Group's Finance Department. It maintains links with the various financial, legal and other organizations in order to keep abreast of the Group's operations. It participates in the Finance Committee, an internal Group committee, to ensure the tax position complies with the Tax Charter. The Department presents the Group's main tax risks to the Audit and Accounts Committee at least once a year. In addition, given the importance of the negotiations underway at the OECD to develop the so-called Pillar 1 and Pillar 2 rules, the Group's Tax Department joined the OECD working groups in 2021 and 2022 and will participate constructively in this work for as long as necessary.

3. Digital risks

3.1. DIGITAL RISKS

Identification and description of risks

The Group's activities, expertise and, more generally, its relations with all the stakeholders (suppliers, customers, banks, communities of experts, etc.) depend on increasingly dematerialized and digitized operations. These operations rely on interdependent information systems and communication networks both in functional, technical, as well as human level terms.

The Group's pursuit of this digital acceleration increases its exposure to risks relating to data integrity, availability, security and confidentiality as well as the availability of IT systems and applications. For data confidentiality, the increase in expectations and requirements for protection also adds the risk of regulatory non-compliance.

These risks, which impact all economic and political players, are increasing in intensity due to the severity and frequency of digital attacks and to their changing nature (historically, cyber risks constituted industrial espionage or data hacking and have come to involve the risks of cyber criminality, malware and ransomware, where the user often plays a decisive role). These attacks, which spread at high velocity, have the potential to affect all of the Group's regions and businesses, with significant impacts on its industrial processes (disturbance of production or distribution activities), its capacity for communication, notably internal, and its image (digital identity theft, dissemination of false information, etc.).

The increase in remote working and the changing geopolitical environment also expose the Group to potential cyberattacks.

Risk management measures

The Digital Security Policy describes the digital security issues, sets the basic rules governing the handling of associated risks, and outlines the roles and responsibilities in this area. It is accompanied by:

- codes outlining principles to be respected by users and IT administrators;
- procedures describing, in particular, how to secure data and applications, detect and deal with incidents.

The Digital Security Department, attached to the General Control and Compliance Department, defines the main areas of focus in a multi-year operational program, and specifies the short-term action plans, in the light of a risk analysis that is updated annually. It coordinates them in collaboration with the Digital & IT teams, among others, and deploys them by relying on dedicated resources in the hubs, clusters, World Business Lines and World Business Units. The main lines of work revolve around:

- risk prevention and awareness raising for employees regarding issues such as fraud and the theft of personal and confidential data, with teaching tools such as e-learning courses on information protection (notably personal or sensitive data) or the use of IT tools and phishing campaigns (with a focus on employees who have been repeatedly tricked). Risk prevention measures in the event of remote working have been strengthened, in particular in the management of remote access to IT systems;
- protection of critical applications, the most sensitive information, industrial assets, as well as taking digital security into account from the project design phase, as an intrinsic dimension of any digital solution;

Risk factors and management measures

- monitoring of digital threats, information leaks and major cyber incidents that could affect the Group's activities: this involves penetration testing (which is increasingly automated) and the implementation of a system to monitor information regarding Air Liquide which may have been leaked online;
- implementing regulatory compliance for the organization using specific projects or programs such as respecting the General Data Protection Regulation; for the latter, a framework agreement was drafted governing sharing of personal data within the Group, and a mechanism for the handling and processing of complaints was introduced;
- the Group's resilience through the department in charge of incident detection/reaction, crisis simulation exercises (at the base and hub levels), and implementation of a business continuity plan in the event of an interruption of IT systems.

4. Environmental and societal risks

4.1. ENVIRONMENTAL RISKS

4.1.1. Climate risks: greenhouse gas emissions

Identification and description of risks

Air Liquide's business model is based on the outsourcing of the industrial gas needs of its customers who often emit greenhouse gases themselves, in particular in the metals, chemicals and refining industries. This outsourcing is justified by Air Liquide's expertise which allows to optimize the energy consumption of production tools and favors low-carbon energy procurement. However, it leads to the transfer of a portion of the customer's greenhouse gas emissions to the Group.

Almost 85% of Air Liquide's large production units are Air Separation Units, which do not use any combustion processes and therefore do not emit CO₂ and consume almost exclusively electrical energy. Electricity used by the Group to power these units generate CO₂ emissions at electricity suppliers; such emissions are classified as indirect emissions (Scope 2).

The Group's two other main CO₂-emitting activities are hydrogen production and co-generation. These account for nearly 15% of large production units and use combustion processes emitting CO₂, known as direct emissions (Scope 1).

In this respect, the climate risk (greenhouse gas emissions) is closely linked to the access to renewable electricity sources and implementation by public authorities of greenhouse gas emission reduction policies such as, for example, the introduction of a carbon price or more stringent regulations, that may impact:

- either the Group's plants (direct impact on the operational scope), resulting in increased production costs and the need for new investments;
- or those of its suppliers, resulting in price increases;
- or customers (indirect impact on the value chain), impacting, for instance, their market, processes and industrial gases needs.

Air Liquide is present in regions across the globe that have implemented or are in the process of implementing greenhouse gas emissions trading schemes. If the share of emissions covered by free allowances decreases, the Group may be required to introduce compensatory measures. It should be noted that long-term contracts foresee a transfer of CO₂ costs to customers.

Risk management measures

To reinforce the climate objectives announced in November 2018 which set the framework under which the Group takes active measures for the climate in its operations, with its customers and ecosystems by offering low-carbon solutions, Air Liquide announced new sustainable development objectives on March 23, 2021. In line with the Paris Agreement, and to face the urgency of taking climate change and energy transition into account, Air Liquide has shown its commitment by setting itself the ambition of achieving carbon neutrality by 2050, with two major intermediate milestones:

- the start of reduction of absolute CO₂ emissions around 2025;
- a -33% reduction in Scopes 1 and 2 CO₂ emissions ⁽¹⁾ by 2035, compared with a "market-base" 2020 Scopes 1 and 2 baseline ⁽²⁾.

The objective of reducing carbon intensity by -30% by 2025 relative to 2015 emissions ⁽³⁾ has been maintained.

A Climate Policy published in the BlueBook ⁽⁴⁾ in 2022 aims to consolidate the principles governing Climate risk management within the Group, as well as across the entire value chain.

The monitoring and achievement of the Group's climate objectives are based on:

- the internal greenhouse gas emission monitoring procedure, which sets out the monitoring of current greenhouse gas emission regulatory obligations with which the Group must comply; the methodology for calculating Scopes 1 and 2 emissions, as well as the reporting scope and frequency;
- integration of the monitoring of the CO₂ trajectory performance in the Group's management process, in particular the budget process, which now includes the allocation of a carbon budget to the various geographies, as well as quarterly monitoring by geography and business line at the Executive Committee level;

⁽¹⁾ In metric tonnes of CO₂-equivalent, from a 2020 baseline restated to include full-year emissions from the assets acquired and integrated after 2020.

⁽²⁾ Scopes calculation methodology explained in paragraph 2.2.4 of the Annual Reporting section of Chapter 5 – pages 426 and 427.

⁽³⁾ In kg CO₂-equivalent/euro of Operating income recurring before depreciation and amortization and excluding IFRS 16 at 2015 exchange rates for Scopes 1 and 2 of greenhouse gas emissions in a "market-based" methodology (see methodology for calculating scopes in paragraph 2.2.4 of the Annual Reporting section of Chapter 5 – pages 426 and 427, as well as reconciliation in the Performance indicators paragraph of Chapter 1 – page 61.

⁽⁴⁾ The BlueBook is Air Liquide's Global Reference Manual, which gathers the Group's codes, policies and procedures and forms the basis for the Group's internal control system.

- a review of investment decisions, taking climate factors – and in particular a CO₂ price – into consideration, along with an analysis of the opportunities and risks associated with climate transition. For all its projects, for all geographies, and even those without a current official price for CO₂, Air Liquide integrates a CO₂ price sensitivity study into its investment decision process. Various values are used, including a reference cost of 50 euros per metric ton of CO₂, the current local price, as well as a high value of 100 euros or more per metric ton depending on local circumstances;
- the roll out of the “Climate Champions” network and the regular review of the decarbonization plan of each cluster (group of countries);
- the assumption of the introduction, in the regions in which the Group operates, of public policies aimed at stepping up the transition toward a low-carbon economy that is in line with a “well below 2°C” trajectory, validated in 2022 by SBTi (Science Based Targets Initiative).

In addition, information regarding the European Union (EU) “Taxonomy Regulation” is available in paragraph 2.5 of chapter 5 of this Universal Registration Document (page 375).

4.1.2. Climate risks: physical impact on Operations

Identification and description of risks

Air Liquide operates in certain regions of the world exposed to changes (in amplitude or frequency) in exceptional meteorological phenomena due to climate change. These phenomena can slow down or interrupt the Group’s operations or make them more expensive. Its suppliers and customers are also confronted with this same issue.

A distinction is made between:

- acute risks triggered by events such as natural disasters, the frequency and severity of which are increasing: storms, hurricanes, flooding, etc. These risks may relate to Air Liquide sites located near the coast for example, or in regions affected by hurricanes (the Gulf Coast, South Asia, etc.);
- chronic risks related to more long-term changes in climate models and rising temperatures: rising sea levels, chronic heat waves in certain regions, changes in rainfall patterns and an increase in their variability, the disappearance of certain resources, etc.

Risk management measures

Physical risks (water availability, frequency of extreme events, etc.) are appraised during the review of investment requests, in the same way as financial criteria, to ensure that the associated risk management measures are adapted, for example in the design of equipment.

In addition, Group operations which are regularly exposed to the acute risks described above have risk management systems in place aimed at adopting suitable preventive operational measures and at managing these crises by, first and foremost, protecting individuals and the production facilities in close cooperation with customers. These systems are regularly updated and improved.

Chronic risks are taken into account, in particular in the design of production units, in the same way and to the same extent as their energy efficiency and carbon footprint.

These risks are also taken into account in the preparation of the financial statements (note 31).

4.2. SOCIETAL RISKS (DISCRIMINATION-RELATED RISKS)

Identification and description of risks

Air Liquide operates businesses in a large number of countries with different cultures. It is therefore naturally exposed to discrimination risks relating in particular to gender mix (gender disparity, particularly in technical and expert professions), diversity (skin color, ethnic origin, religion, sexual orientation, etc.), age or disability, etc.

Risk management measures

The Group’s Principles of Action and the Code of Conduct reaffirm the Group’s values and, more specifically, a culture based on diversity, openness, transparency, respect for others and the rejection of all forms of discrimination. These values are also included in the Human Resources policy and must be promoted by all Group employees, with the support of Human Resources, through awareness-raising, training tools and the monitoring of progress indicators.

Moreover, for several years, Air Liquide has been a signatory of the United Nations Global Compact, for which one of the principles aims to contribute to the elimination of all forms of discrimination in respect of employment and occupation.

To this end, actions are regularly taken to promote gender mix (for example to increase the number of women among managers and professionals to 35% by 2025), nationality mix (Air Liquide’s senior executives are now of 35 different nationalities), and inclusion (in particular, a review of the policy relating to employees with disabilities). Details of the actions carried out by the Group are indicated on pages 350 to 353.

5. Geopolitical, regulatory and legal risks

5.1. GEOPOLITICAL RISKS

Identification and description of risks

Considering the changing international climate, including increasing tensions between or in some countries and the persistence of terrorist threats, the Group may be exposed in certain countries to economic or financial risks, as well as to risks affecting the safety of its employees (on-site or during business travel) and the security of its facilities.

Risk management measures

When investment requests are reviewed, the geopolitical context of a project (in both safety and economic terms) is part of the criteria examined before any approval: country risk is thus assessed on a case-by-case basis and may lead to adjustments to financing strategy and supplementary insurance cover, or even the rejection of the project.

Moreover, all countries in which the Group operates are subject to monitoring and regular analysis of the geopolitical context.

Finally, the Safety and Industrial Systems Department uses awareness-raising and training tools to protect employees, travelers and expatriates who are potentially exposed in certain regions or when traveling for business: e-learning, prior intervention from specialists on certain specific risks (health, hygiene, pollution, kidnapping, etc.). Other measures are also implemented locally to secure products and sites that are most exposed to an external threat.

5.2. REGULATORY AND LEGAL RISKS

5.2.1. Risks of non-compliance with laws and regulations

Identification and description of risks

In all the countries where the Group operates, its entities are exposed to the risk of non-compliance with laws and regulations. In an increasingly complex context due to a continuously rising number of standards, they must monitor changes to the legal and regulatory framework notably in terms of the specificities of the businesses that they conduct.

The Healthcare business line, in particular, is subject to specific regulations for the products that it sells (medical devices, drugs), the research activities that it carries out, and for the processing of patients' personal healthcare data.

The Group must face, in all regions in which it operates, the risks of non-compliance with:

- competition law;
- provisions aimed at combating corruption;
- regulations restricting exports of certain products or relating to destinations under sanctions;
- regulations on the transfer of personal data (see 3.1. Digital risks – page 85);
- the duty of vigilance.

Group entities are also exposed to the risk of non-compliance with contractual obligations (of their own or those of their contractual counterparties).

Liabilities and contingent liabilities related to disputes are described in notes 22 and 30 of the consolidated financial statements – pages 289 and 309.

Risk management measures

Changes to legal and regulatory requirements are monitored with particular vigilance and are accompanied by the implementation of procedures aimed at improving teams' knowledge of these changes and related risks and providing them with tools to ensure compliance with obligations in the following fields, through:

- Group Codes on how to behave in order to comply with competition laws, accompanied by surprise audits and training that includes e-learning;
- a corruption prevention program in which Executive Management and management are closely involved; this program relies in particular on the mapping of corruption risks, the updated Code of Conduct, a full set of training and awareness-raising actions for those exposed to corruption-related risks, a third-party assessment mechanism, accounting controls and a whistleblowing system. This program is regularly updated to take into account new regulatory and legal requirements under the coordination of the Group's Ethics Officer, who relies on a network of ethics correspondents and the support of the Operational Departments in the hubs and businesses; it is regularly audited;
- a guidance document for export control and international sanctions, as well as a tool and procedures for verifying third parties;
- various contract guides (for Large Industries, Industrial Merchant, Electronics, Engineering & Construction and Financing) and Codes of Good Practices (for Healthcare);
- the establishment of a specific department to deal with the legal challenges of the law on the duty of vigilance.

To the Group's knowledge, there are no governmental, legal or arbitration proceedings, either current or threatened, which may have or have had, in the past 12 months, significant impacts on the Group's financial situation or profitability.

CONTROL ENVIRONMENT

This section describes the key elements of the control and risk management environment instituted by the Company.

1. Organization

The Group is organized and based on a consistent Group strategy. It is supported by a method of management which centers on mid-term objectives that are categorized by business, as well as a steering process for activities based on annual budgetary objectives, which are further categorized down to the individual plan level. As part of the ADVANCE corporate program, the Group continued to rely on a network organization that promotes communication and shortens decision-making circuits.

The organization breaks down into:

- hubs which ensure the presence and representation of the Group in the main global regions. With the Base (L'Air Liquide S.A. head office), they are responsible for defining the Group's operational strategy and its global performance. They accommodate the representatives of the Corporate functions and World Business Lines who ensure that the Group strategy is properly implemented locally;
- entities, grouped in clusters (groups of countries) for better pooling of resources, which provide operational management of their activities and implement the Group strategy in those countries where the Group has a presence;
- the World Business Lines, which:
 - with the hubs and Strategy Department, prepare the medium-term strategic goals for the businesses they represent,
 - have responsibility for strategic marketing, the transformation of their respective businesses, industrial policy and the suitability of skills in their specific areas of business;
- the World Business Units specific to certain businesses (Global Markets & Technologies, Engineering & Construction);
- the Innovation and Development Division (IDD), which brings together all the research and innovation resources, technology development, Digital & IT (La Digital Factory, ALIZENT, network infrastructure and more), the Intellectual Property Department, the ALIAD investment fund and the Global Markets & Technologies (GM&T) World Business Unit (WBU) mentioned above.

This organization also includes the Corporate functions, which notably comprise the three key control departments that report to Executive Management:

- the Finance Department, which is responsible for:
 - the reliability of accounting and financial information,
 - the Group's financial and tax risk management,
 - the drafting of Group objectives and monitoring of performance by operations control, based on financial data prepared by the accounting teams, analysis conducted by the financial teams of the various entities as well as certain operational data;
- the Group Control and Compliance Department, which:
 - provides expertise and assistance to entities in their risk management approach (see below) and builds a Group synthesis,

- helps Group entities ensure compliance with and promotion of both the Group's ethical values, particularly through training and awareness-raising measures and the treatment of fraud and deviations (all these measures, organizations, and tools are presented in detail in the Extra-financial Performance Declaration – page 345), as well as compliance with duty of vigilance measures and with international trade regulations,
- verifies the effective application of internal control and risk management procedures through audits carried out according to a defined program presented to the Group's Audit and Accounts Committee. This program, developed and based on the risk analysis, is regularly monitored by the Audit and Accounts Committee in liaison with the Environment and Society Committee (for environmental and societal issues). Audit Reports are systematically supplemented by corrective action plans, which are supervised by a member of the Executive Committee. These Reports, as well as subsequent follow-up Reports, are the subject of various communications and periodic discussions with the Statutory Auditors,
- provides guidance to Group entities, through the Digital Security Department, which reports directly to the Group Control and Compliance Department, on the identification and protection of their data, systems, and digital applications (definition of rules, roll-out expertise and advice, control of proper implementation);
- the Legal Department, which identifies legal risks, issues internal guidelines and Codes, and then oversees their proper implementation. It monitors the development of the main disputes. It manages insurance.

Moreover, the Group has a formal whistleblowing system at all its entities, whereby employees can anonymously alert an independent external service provider of any deviations from the Group Code of Conduct or applicable legislation. Employees can file this alert in their own language by telephone or through the provider's dedicated website. After consulting the employee representative bodies in France, this system was extended at the end of 2021 to all internal and external stakeholders.

All alerts filed are processed in a confidential manner under the supervision of the Group Ethics Officer, in line with the principle that anyone who reports something in good faith will not be sanctioned or have any retaliatory measures taken against them. This principle of whistleblower protection is guaranteed by the Group and reiterated in the Code of Conduct.

This system is an alternative solution to the usual process for reporting incidents within the entities through managers and the Human Resources teams. It helps to accelerate the processing of reports received, and thus to minimize their potential impact on individuals and the organization. Details of the indicators relating to reports received and alerts are provided in Chapter 5 on page 388.

Control environment

Finally, this organization relies on a framework of authorizations and delegations:

- to members of the Executive Committee and certain departments and services in order to define their commitment and payment powers for commercial transactions (sales or purchasing);
- to certain executives in charge of entities or sites in France in particular, in order to ensure the prevention and management of industrial risks in terms of hygiene and safety;

- to certain financial executives, in order to ensure the security of transactions and financial flows.

The managers of the various Group subsidiaries exercise their duties under the control of the Boards of Directors and in accordance with laws and regulations applicable in the countries where they operate.

2. Risk management

To ensure the continued development of its activities, the Group must actively pursue an approach to prevent and manage the risks (especially industrial and financial risks) to which it is exposed.

In terms of the Group's business activities, industrial risk management must essentially focus on prioritizing safety and security while maintaining a permanent focus on the reliability of facilities.

Financial risk management requires strict control over investments, combined with prudent and rigorous practices regarding the accounting and financial aspects of the activities.

The Group's formal risk management approach aims to ensure:

- the regular identification of the different forms of risk (industrial, financial and other) encountered by the Group during the pursuit of business activities, which are assessed according to both potential impact and probability of occurrence;
- the assessment of the level of maturity of the management of each risk based on a common scale with respect to the quality of policies, organizational structures, processes and controls in place;
- the progress of the main corrective action plans undertaken to mitigate these risks, by focusing monitoring activities on a limited number of priorities.

This three-phase risk management process (mapping, maturity level assessment, mitigation plans) covers more than 90% of consolidated Group revenue.

The Risk Management Department within the Group Control and Compliance Department leads this approach using:

- resources dedicated by the hubs, World Business Units and World Business Lines to manage the approach in their respective scopes of responsibility (under the supervision of the Boards of Directors of the entities concerned) and to provide a summary thereof;

- the work of members of the Risk Committee that it coordinates (described on page 92).

The Audit and Accounts Committee reviews Group risk management based on presentations covering:

- the progress of the approach (on an annual basis);
- each major risk management system based on a multi-year program structured according to the challenges;
- internal audit summaries of these risk management systems.

Environmental and societal risks are reviewed by the Environment and Society Committee (three meetings per year), which also meets once a year in a joint session with the Audit Committee. During this joint session, the two Committees may review the trajectory of the climate objectives.

In order to have a broader approach, each year, the Risk Management Department presents a hypothetical identification and positioning of emerging risks at a Risk Committee meeting. A review is also performed on the timing of the emergence of these risks, and the necessary anticipatory actions are suggested. According to the International Risk Governance Council (IRGC), an emerging risk is a new risk or an existing risk that could materialize in a new context or in a context not yet known. An emerging risk is potentially impactful but its characteristics are not yet fully identified.

Finally, an annual summary of risk management actions undertaken by the Group is presented to the Board of Directors; each year it validates the Audit and Accounts Committee's provisional program which is presented to it beforehand, as well as a list of subjects of strategic interest or with particular relevance that will be presented in a more specific manner.

3. Internal control

In addition to the Principles of Action (<https://www.airliquide.com/sustainable-development/ethics/groups-principles-action>), which reaffirm the Group's values with particular reference to stakeholders (shareholders, suppliers and customers, employees, etc.), the Group's policies, Codes, and procedures are grouped together in a Global Reference Manual, the BlueBook, which is available to employees on the Intranet. The BlueBook constitutes a set of internal control and risk management documents, which must be implemented by each entity included in the Group's consolidated financial statements.

The BlueBook is the cornerstone of the Group's internal control system, which aims to ensure that:

- the Group's activities and the conduct of its employees:
 - comply with laws and regulations, internal standards and applicable best practices,
 - comply with the objectives defined by the Company, especially in terms of risk prevention and management policies,
 - contribute to safeguarding the Group's assets;
- all financial and accounting information communicated either internally or externally gives a true and fair view of the situation and activity of the Group and complies with prevailing standards.

Generally, the Group's internal control system should help better master its activities, the efficiency of its operations and the efficient use of its resources. It also aims to prevent errors and frauds.

As with other "assurance systems", it cannot provide an absolute guarantee that the Group's objectives will be met.

In 2022, the Group pursued the actions undertaken in previous years, with all material Group entities and shared service platforms (representing over 90% of consolidated Group revenue), reviewing the appropriateness of their internal control system in relation to the Reference Framework for internal control and risk management systems. These entities also implemented actions aimed at improving their control system in terms of annual guidelines defined at the beginning of the year by the hubs and World Business Units, the Group Control and Compliance Department and the Finance Department. The latter two together

organize these improvement measures and report on their progress to the Group's Executive Management then to the Audit and Accounts Committee.

Audits are coordinated by the Group Control and Compliance Department and the Statutory Auditors, based on a joint work program, to verify the assessments of the internal control processes and the correct implementation of key operating controls.

Finally, cases of fraud are systematically reported to the Group's Ethics Officer, analyzed together with Internal Control in order to identify measures to strengthen the system to be implemented, and are investigated when deemed necessary. They are regularly brought to the attention of Executive Management, the Ethics and Compliance Committee and the Audit and Accounts Committee.

RECENT MEASURES AIMED AT STRENGTHENING THE SYSTEM

In 2022, the Group continued its measures to improve the quality of its internal control and risk management system, with in particular:

- in terms of industrial safety: created in 2020, the Industrial and Safety Committee, chaired by a member of the Executive Committee, meets every two months to better learn from incidents across the Group. This Committee helps strengthen the Group's safety performance and the management of certain industrial risks. Industrial departments from all activities participate in this Committee;
- in terms of governance:
 - the Ethics and Compliance Committee monitored the progress of programs covering prevention of corruption, competition law, export control, protection of personal data (GDPR) and the Vigilance Plan. The Committee notably reviewed the update of the Code of Conduct and the topics related to social taxonomy (classification of activities from the perspective of human and social rights, with reference to international standards),
 - concerning the duty of vigilance, a dedicated responsibility was created in 2020 to oversee the implementation of this approach, in particular by coordinating the structure and content of the Vigilance Plan to better meet the expectations of the Group's stakeholders;

- in terms of internal control: under the supervision of the Group Internal Control Department, the Group's internal control manual was updated, and several awareness-raising and training initiatives on internal control issues were held, drawing on the network of Group internal controllers;
- in terms of digital security and the management of major crises: the continuation of the project aimed at defining and then rolling out cyber business continuity plans across the Group;
- in terms of human resources management: with the increasing digitalization of activities, the Air Liquide University offered again two virtual training campuses covering six themes: Management & Leadership, Sales & Marketing, Operational Excellence, Innovation, Climate & Energy Transition and HR professionals;
- in response to the health crisis and the accompanying changes to organizational structures, the continuation of the global "next normal" project to support this shift in working methods. This tool allows managers to take ownership of this new framework including remote team management, a structured remote working policy, the design of workspaces, and an in-depth review of our interaction with our customers and patients.

4. Financial and accounting information

In order to guarantee the quality and reliability of financial and accounting information produced, the Group primarily relies on a set of accounting principles and standards, as well as a consistent accounting and management reporting system and feeds both the Group statutory consolidation process and the management analysis that is under the responsibility of independent departments, which report to the Finance Department.

The Group accounting manual, which includes the Group financial policy, defines the accounting rules and principles as well as the consolidation methods applicable and states the formats applicable for reporting financial and accounting information. This manual is regularly updated by the Finance Department with the amendments to IFRS or their interpretations.

Management and accounting reports are each prepared under the responsibility of independent but interactive departments that follow identical methods and principles:

- this independence allows for the enhancement of information and analysis through the use of complementary indicators and data, particularly those which are specific to each business;

- the fact that these bodies are interactive provides for better control of the reliability of information through the systematic and regular reconciliation of data.

The reports primarily include:

- monthly management reporting, known as the "Monthly Flash Report", that provides information on revenue and the main financial indicators: income statement, cash flow from operating activities, net debt and the amount of investments authorized and committed;
- quarterly reporting, known as the "Management Control Report", which provides details of the primary items of the income statement, balance sheet and cash flow statement;
- a quarterly "variance" analysis report to assess the various components of the change in operating income recurring.

Control environment

These three documents are compiled by each management entity according to a predefined yearly timetable.

They are systematically accompanied by comments on activities drawn up under the supervision of the entity's Chief Executive Officer, and are consolidated at Group level with a breakdown for each hub and business:

- quarterly reporting for accounting consolidation is compiled by each reporting entity which, in addition, must provide (on a semi-annual basis) information on off-balance sheet commitments that include in particular:
 - energy purchasing,
 - financial guarantees and deposits,
 - all other contractual commitments.

Accounting consolidation statements and monthly reporting are escalated to the Central Consolidation Department. This department prepares the consolidated data and works in conjunction with the Operations Control Department, whose duty it is to analyze and comment on the results, identify and explain any differences with respect to forecasts, and update said forecasts. Meetings are organized each month with the heads of hubs and clusters (groups of countries) to clarify these analyses.

As part of the scope of the monthly Group Performance Steering Committee, a rolling forecast for the rest of the current year is systematically presented by the Finance Department, in order to identify, when applicable, any differences with respect to yearly targets and take the necessary steps.

Through regular controls, the Finance Department ensures the effective application of accounting methods and principles in the

various Group entities. The most complex accounting standards, particularly those relating to employee benefits (IAS 19), methods of consolidation (IFRS 10/11), the classification of major Large Industries' contracts and methods for recognizing revenue (IFRS 15/16), derivative financial instruments (IAS 32, IFRS 7, IFRS 9) as well as the implementation of new standards are subject to greater support and tighter controls or to direct treatment by the Finance Department.

It also relies on audits carried out by the Group Control and Compliance Department, with which it has regular contact.

The Group takes into account climate risks in its closing assumptions and incorporates their potential impact in its financial statements. In particular, climate risks are taken into account when carrying out closing procedures, in particular the analysis of the useful lives of property, plant and equipment used for calculation of depreciation and amortization, the review of the estimates and assumptions concerning assets' impairment tests, and the risk assessment to determine the amount of provisions for contingencies and losses.

The quality and reliability of financial and accounting information is also based on high-performance transactional systems (such as Enterprise Resource Planning – ERP), coupled with modern and secure Group consolidation and Business Intelligence tools. These tools enable financial and operational data to be analyzed, made available and displayed to all employees and management.

The project, which aims to further harmonize ERPs, continues on the basis of the definition of an accounting and financial framework tailored to the various Group businesses.

5. Monitoring of control systems

The Board of Directors exercises its control over Group management based on the various quarterly activity reports it receives from Executive Management and the work of the Audit and Accounts Committee, according to the methods and principles already described (reports, debriefings, etc.) on pages 151 to 154.

General Management exercises its control over risk management, in particular through regular meetings organized around the Chief Executive Officer and monthly meetings of the Group Performance Steering Committee (described in page 42).

It also relies on existing reports and:

- Executive Committee meetings, with, in particular, debriefings from the Safety and Industrial Systems Department regarding Group performance in terms of security and the progress of current actions;

- work carried out by the Finance Department, and the Group Control and Compliance Department;
- recommendations made by various Group Committees set up to ensure enhanced management of certain commitments and significant stakes (the role and members of these Committees are described below).

These control measures are enhanced by the involvement of operational departments and the Executive Committee in the implementation and follow-up of actions needed to improve and strengthen the quality of internal controls.

THE RISK COMMITTEE

The purpose of this Committee is to provide support and expertise to the hubs, World Business Units and World Business Lines which must implement and coordinate the risk management approach in their respective scopes of responsibility.

It brings together the following Corporate functions: Group Control and Compliance, Legal, Finance, Communication, Safety and Industrial Systems, Human Resources and Group Operations Control Departments.

It meets twice a year and is chaired by the Chief Executive Officer (CEO), in the presence of an Executive Vice President and the Director of Strategy. The objectives of these meetings are to report on the progress of priority actions to mitigate major risks, to draw up a summary of risk management and to define Group orientations. The Committee also examines certain strategic risks more closely.

THE FINANCE COMMITTEES

The purpose of **the Strategic Finance Committee** is to verify the effective application of the Group's financial policy, to approve financial management proposals and suggestions that have been submitted and to approve the rules governing the Group's financial policy, which are subjected to regular review.

It brings together the Group Chief Financial Officer, the Deputy Chief Financial Officer, the Group Financing and Treasury Director, and the Corporate Finance Director who meet under the authority of the Chief Executive Officer (CEO).

The Committee meets at least three times a year and upon request, if necessary.

The purpose of **the Operational Finance Committee** is to make day-to-day decisions concerning the financial management of the Group, to propose structuring transactions to the Strategic Finance Committee and to ensure their implementation after approval.

It brings together the Group Chief Financial Officer, the Deputy Chief Financial Officer, the Group Finance and Treasury Director, and the Corporate Finance Director, assisted by a Committee Secretary.

The Committee meets every four to six weeks, and the minutes of these meetings are sent to the Chief Executive Officer (CEO).

THE RESOURCES & INVESTMENT COMMITTEES (RIC)

The purpose of these Committees is to assess and approve requests for investments that have been submitted, as well as for medium- and long-term contractual commitments, Human Resources requirements that may arise therefrom, as well as the environmental footprint and societal impacts of these projects. In line with the Group's commitment within the framework of its sustainable development objectives announced in March 2021, the importance of environmental and societal criteria has been reinforced, with particular attention paid to the carbon impact of investment decisions.

They meet regularly (usually once a month) for each hub and each World Business Unit.

Each Committee meeting is chaired by a member of the Executive Committee in charge of the hub or of the World Business Unit involved and brings together managers of the region and business line concerned by the investment, as well as representatives of the Group Finance Department (who have a veto right), Engineering & Construction, and the Capital Implementation Group (CIG).

The Committee's decisions are reviewed by Executive Management.

THE ETHICS AND COMPLIANCE COMMITTEE

With regard to ethics, the purpose of this Committee is to supervise the Group's ethics program (monitoring of actions undertaken to prevent corruption and deviations from the Code of Conduct, proposing short- and medium-term orientations) and to recommend sanctions in case of significant deviation.

In the more general area of compliance, this Committee oversees compliance issues that are not activity specific, such as competition law, export controls, duty of vigilance and the protection of personal data.

It brings together the Group Control and Compliance, Legal, Sustainable Development, and Human Resources Departments as well as a representative of operational functions; it meets at least twice per year and more often when required.

THE DIGITAL SECURITY COMMITTEE

This Committee is responsible for validating the strategic directions for digital security and for ensuring the operational progress of certain Group projects (industrial IT, digital innovation, monitoring of leaks of sensitive information, etc.).

It brings together the IT & Digital, Industrial Safety, and Digital Security managers, as well as a representative of Operations and, when required, other Corporate or Operational Departments. It meets each month under the chairmanship of a member of the Executive Committee.

THE INDUSTRIAL AND SAFETY COMMITTEE

The purpose of this Committee is to supervise the management of industrial risks, and to monitor the advancement of the main actions for progress.

It brings together the Vice Presidents of the five industrial departments of the World Business Lines, the Group Head of Safety, as well as a representative from the Engineering & Construction World Business Unit and one from the Global Markets & Technologies World Business Unit. It meets six to eight times per year under the chairmanship of a member of the Executive Committee.

THE E-ENRISK COMMITTEE

The purpose of this Committee is to review and provide guidance and recommendations on energy and climate strategies implemented by Group entities.

Each month, it brings together the Vice President and the Energy Director of the Large Industries World Business Line, the Group Finance and Treasury Director, the Director in charge of Accounting policies and procedures, the Sustainable Development Director and the Group Investment Director. Meeting minutes are sent to all Executive Committee members.

OTHER COVERAGE SYSTEMS

The Group has adequate insurance coverage, underwritten by first-rate insurers, for civil liability, property damage and business interruption.

1. Property damage and business interruption

Group property and business interruption are covered by property and casualty insurance policies underwritten in each country in which the Group operates. Almost all of these policies are integrated into an international program.

These policies, which are generally of the "All Risks" form, cover fire, lightning, water damage, explosions, vandalism, impact, machinery breakdown, theft and, depending on the country and in limited amounts, natural disasters.

Business interruption following a claim for damage is covered by insurance for most production sites under these same policies. The coverage period for business interruption is 6 to 24 months. Deductible amounts are correlated to the activity of the sites. Insurers conduct regular visits at the main industrial sites for risk prevention purposes.

2. Civil liability

In terms of civil liability, the subsidiaries have local liability policies that cover damage to third parties due to their activities (operational risk) and their products (product risk). The amount insured for each subsidiary in its policy depends notably on the amount of its revenue and on its activities.

In addition to local policies, the Group has comprehensive coverage for damage to third parties covering all of its activities in the form of umbrella insurance taken out in France, which covers both the Company and its subsidiaries.

The coverage amount underwritten exceeds 500 million euros. Coverage is built on several overlapping insurance lines. Each line has been underwritten for a given amount with several insurers sharing the risk. Beyond the first line, the upper lines pick up the excess risk from the lower lines.

3. Captive reinsurance

A portion of property damage and business interruption risk is kept by the Group via a captive reinsurance company, which also participates among other things in the coverage of the Group's civil liabilities as well as in the coverage of goods transported.

This captive reinsurance company covers, for the 2022 fiscal year, claims of up to a maximum of 56 million euros with sub-limits per claim adapted to the nature of the claim. Beyond these amounts, risks are transferred to third-party insurers. Their management is entrusted to a captive manager approved by the competent authorities.

VIGILANCE PLAN

Introduction

OVERVIEW OF THE LAW

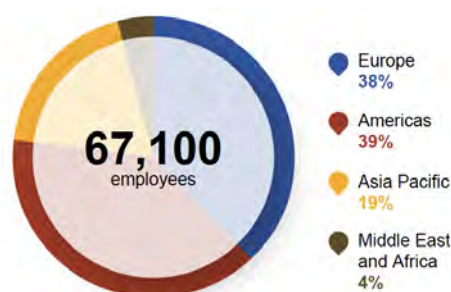
French law no. 2017-399 dated March 27, 2017, relating to the duty of vigilance of parent companies and instructing companies ("Law on the Duty of Vigilance") introduced, in Article L. 225-102-4 of the French Commercial Code, the obligation for parent companies employing more than 5,000 employees in France or 10,000 employees in France and abroad, to establish and effectively implement a Vigilance Plan. This Plan must include "reasonable vigilance measures to identify the risks and prevent severe impacts on human rights and fundamental freedoms, health and safety of persons and on the environment" which may result from the activities of the Group and its subsidiaries, and those of suppliers or subcontractors with whom Air Liquide has an established commercial relationship. This obligation is based on five measures:

- risk mapping (identification, analysis, prioritization);
- procedures to regularly assess the situation of subsidiaries, suppliers and subcontractors;
- appropriate actions to mitigate risks or prevent severe impacts;
- an alert mechanism that collects reporting of potential or actual risks;
- a monitoring scheme to follow up on the measures implemented and assess their effectiveness.

Air Liquide complies with the requirements of the Law on the Duty of Vigilance by issuing a Vigilance Plan, whose content is shown below, and which presents the various measures implemented for each stake: human rights and fundamental freedoms (paragraph 2), the health and safety of individuals (paragraph 3), and the environment (paragraph 4). As specific measures apply to the management of suppliers and subcontractors, the risks, procedures and measures implemented in this regard are set out in paragraph 5. Two measures, risk mapping (paragraph 1) and the setup of a whistleblowing system and alerts' collection and treatment (paragraph 6), apply transversally to all three stakes and are presented independently to facilitate their reading. The effective implementation report for the year 2022 is integrated into the Vigilance Plan, in particular through operational illustrations and monitoring indicators.

Air Liquide strives to invent a sustainable future. Through the engagement, innovation capacity and technological know-how of its 67,100 employees in 73 countries ⁽¹⁾, Air Liquide is particularly well positioned to continue its growth trajectory while contributing to respond efficiently to major economic, environmental and societal challenges.

BREAKDOWN OF EMPLOYEES BY GEOGRAPHY



This Vigilance Plan applies to L'Air Liquide S.A. and all Group subsidiaries.

STEERING AND GOVERNANCE OF THE DUTY OF VIGILANCE

As an extension to the Group's commitment to subjects relating to the duty of vigilance, Executive Management decided to create in 2020 within the Group Control and Compliance Department a function dedicated to strengthening the coordination of these matters. Today, two people oversee the implementation of Air Liquide's vigilance approach. Their responsibilities notably include coordinating the structure and content of the Vigilance Plan to better meet the expectations of the Group's stakeholders and to issue recommendations to the various departments involved. Progress is regularly monitored by Executive Management.

The Procurement, Group Control and Compliance (including in particular Ethics, Risk Management, Digital Security and the Duty of Vigilance), Sustainable Development, Legal and Human Resources, and Safety and Industrial System Departments took part in monitoring the actions and the drafting of this Vigilance Plan.

The departments responsible for duty of vigilance stakes (e.g. Human Resources, Safety and Industrial System, Procurement) have their own internal steering bodies, including operational representatives. These bodies meet regularly to monitor the actions implemented and performance through indicators.

The Ethics and Compliance Committee monitors progress regarding the Vigilance Plan. It brings together the Group Control and Compliance, Sustainable Development, Legal and Human Resources Departments as well as a representative of operational functions who is a member of the Group's Executive Committee and meets at least twice a year and more often when required. In 2022, it continued to review the progress of stakes relating to the duty of vigilance.

The Environment and Society Committee is one of the Board of Directors' special committees dedicated to societal and environmental responsibility issues. This Committee was created in 2017; it includes three members and meets at least three times a year. In 2022, it continued to supervise the roll-out of the Vigilance Plan.

⁽¹⁾ Excluding Russia, where the entities are in the process of being divested. They are no more consolidated following the loss of control on September 1st, 2022.

REFERENCE FRAMEWORK

Air Liquide adheres to the highest standards in conducting its business, and is particularly committed to respecting human and labor rights and to protecting the environment. This commitment is reiterated in the Principles of Action, which were adopted in 2006 and successively revised in 2016 and 2022. These Principles are shared with all employees and are available on the Group's website (<https://www.airliquide.com/sustainable-development/ethics/groups-principles-action>). Air Liquide is committed to its customers and patients, Shareholders, employees, local communities, suppliers and business partners. The Group is also committed to environmental protection and sustainable development.

In order to complement these Principles of Action, the Group has also adopted a Code of Conduct, updated at the end of 2021 and rolled out in the Group's subsidiaries in 2022 using various means of communication (information meetings, posters, articles, etc.). The Code of Conduct is available on the Air Liquide website in 28 languages (<https://www.airliquide.com/sustainable-development/ethics>). The Code's main areas of focus are covered in the following three chapters:

- **“Acting with Care”**, which deals with the themes of protection of people and assets, such as safety and security, equality, diversity and the prevention of harassment, or the protection of personal data;
- **“Acting with Integrity and Transparency”** which illustrates in particular the expected behavior in terms of prevention of corruption, respect for fair competition rules and transparency of information communicated to the public;
- **“Acting Responsibly”** which affirms the commitments of the Group and its employees to protect the environment and human rights and about their contribution to the community.

This Code provides employees with a framework for reflection and tools to adopt the expected behaviors. The whistleblowing system is also presented in an educational manner and recalls all the protections granted to whistleblowers (paragraph 6).

An annual online training course dedicated to the Code of Conduct must be followed by all Group employees. Each year, the topics discussed are renewed. For example, in 2022, the module dealt with topics such as equality and diversity, personal data protection, and environmental protection. 98% of employees have completed this training. During the online training, each employee renews their adherence to the Code of Conduct and their commitment to complying with its provisions on an annual basis.

INITIATIVES IN FAVOR OF THE DUTY OF VIGILANCE

In line with its growth trajectory, and with performance and sustainability at the core of its strategy, Air Liquide announced on March 23, 2021, strengthened sustainability objectives to **ACT for a sustainable future**. The Group's commitment is to make a meaningful difference, with a plan based on three dimensions:

- **ACTING for a low-carbon society;**
- **ACTING for Health;**
- **ACTING as a Trusted Partner.**

The new strategic plan **ADVANCE** for the 2022-2025 period, presented in March 2022, places Sustainable Development at the heart of Air Liquide's strategy and combines **financial and extra-financial performance**. The Group's sustainability objectives are included among the four priorities of the strategic plan, affirming its commitment to decarbonize the planet and act for all.

The sustainability objectives and ADVANCE contribute to the prevention and mitigation of the risks identified in the mapping (paragraph 1) and are more fully described in this Vigilance Plan (in particular in paragraphs 2.2.3, 2.4.3 and 4.1.3).



SUSTAINABILITY DAY

As Air Liquide makes progress toward its sustainability ambition, it is of the utmost importance to ensure that employees have the necessary information and resources to understand the Group's objectives announced in 2021 and 2022, progress made towards achieving them, and how they can relate their own activities to the Group's sustainability strategy.

To promote the Group's sustainability objectives, the Sustainable Development Department organized a Sustainability Day on November 15, 2022. During this internal event, employees were invited to one of the two worldwide webinars presenting sustainability actions and initiatives carried out in several countries. In the days that followed, local events were organized in the Group's various geographies.

To complement the Sustainability Day, the Group launched an internal sustainability survey in December 2022, reaching more than 78% of the employees, to measure their interest in Environment, Societal and Corporate Governance (ESG) topics as well as their personal involvement in these subjects. The data collected provides insight into the Group's strengths, for instance employees' belief that sustainability should be a top priority for Air Liquide. In this sense, the survey also reflects opportunities for the Group to improve, notably by providing sufficient information and training on sustainability topics. In 2023, Air Liquide will launch actions to address employee feedback and increase sustainability-related engagement.

Air Liquide adheres to several initiatives contributing to the duty of vigilance stakes. The Group has been a signatory of the United Nations Global Compact (UN Global Compact) since 2014. The initiative calls on companies to make a voluntary public commitment to respect its Ten Principles relating to human rights, international labour standards, the environment and the fight against corruption in their strategy and operations. Every year, Air Liquide issues a Letter of Commitment, signed by the Group's Chief Executive Officer, as well as a Communication on Progress with respect to the strategic and operational implementation of these Ten Principles, which is available on the UN Global Compact website (<https://www.unglobalcompact.org/what-is-gc/participants/39281>). Within the Global Compact France local network, Air Liquide participates in the human rights work group which allows its members, of all sizes and from all sectors, to share experiences and expertise on the management of human rights risks.

Air Liquide is also a signatory of the Responsible Care® Global Charter, an initiative of the International Council of Chemical Associations (ICCA, <https://icca-chem.org/wp-content/uploads/2020/09/Signatories-of-RC-Global-Charter.pdf>) which aims to improve global performance in the chemical industry in terms of health, safety and the protection of the environment. In this respect, an Air Liquide Group employee chairs the Responsible Care Committee of France Chimie since May 2022. The purpose of this committee is to engage companies in the chemical sector in concrete and operational initiatives related to sustainable development, particularly in the areas of sustainable procurement, well-being at work, energy management and product safety.

In addition, the Group joined the association "Businesses for human rights" ("Entreprises pour les droits de l'Homme", <https://e-dh.org/home.php>) in May 2021. This multisectoral association brings together 26 international companies and provides a forum for reflection and exchange of good practices to better understand and integrate human rights and duty of vigilance issues within businesses.

Air Liquide also takes part in several initiatives, such as associations or work groups, relating to a specific stake contributing to the duty of vigilance. For instance, the Group is a member of the French Observatory for Sustainable Procurement (ObsAR, <https://www.obsar.asso.fr>).

With respect to the environment and more specifically to climate change, Air Liquide is involved in several initiatives at different levels. The Group is a member of the "Enterprises for the Environment" association ("EpE", <http://www.epe-asso.org/>), for which it chaired the Climate Change Commission until November 2022 and is a signatory of the French Business Climate Pledge (<https://frenchbusinessclimatepledge.fr/en/>). Air Liquide also contributed to the Assessing Low Carbon Transition® initiative (ACT, <https://actinitiative.org/>) with the aim of developing tools to evaluate low-carbon strategies in the chemical sector. Furthermore, in 2019 the Group joined the Science Based Targets initiative (SBTi), a label created by a coalition of players committed to environmental issues. Beyond the validation of its objective to reduce Scope 1 and 2 emissions by 2035 (paragraph 4.1.3, p 118), the Group continues to develop its strategy to reduce Scope 3 emissions. In 2023, Air Liquide will further the in-depth analysis of all its Scope 3 emissions categories, thanks to the work carried out within the expert advisory group led by SBTi, of which the Group is a member (<https://sciencebasedtargets.org/sectors/chemicals>).

Lastly, through its activities, its engagement and its environmental and societal actions, Air Liquide contributes to certain Sustainable Development Goals (SDGs) that the United Nations has set up to eradicate poverty, protect the planet and guarantee prosperity for all by 2030. To illustrate the Group's contribution, the due diligence measures implemented to mitigate the salient risks identified, described in paragraphs 2, 3 and 4, are associated with the corresponding SDGs.

2022 HIGHLIGHTS

ADVANCE includes the sustainability objectives in Air Liquide's strategy, in particular: the trajectory towards carbon neutrality by 2050, the achievement of a 35% share of women among "Managers and Professionals" by 2025 and a common basis of care coverage for 100% of employees by 2025.

Following the work initiated in 2021, the risk mapping methodology for the duty of vigilance across the scope of the Group's activities has been simplified. The three exercises carried out with various internal stakeholders and on diverse scopes during 2022 contributed to the continued roll-out of the approach. No new salient risks were identified for the Group's activities during the annual review. The table summarizing these risks, presented on p. 99, was enriched with the types of individuals and ecosystems potentially affected.

In terms of human rights, faced with the military conflict between Russia and Ukraine, Air Liquide applied the principles of heightened due diligence in order to ensure the safety of its employees and other people who could be impacted in the course of its activities in the two countries, particularly the most vulnerable exposed to risks affecting their health. To promote Inclusion and Diversity, the "Inspiring Air Liquide Women" project highlights the journey of 120 women from 43 different nationalities in order to encourage women to dare to achieve their professional and personal ambitions and objectives.

As safety and security are fundamental values of Air Liquide, the paragraph dedicated to these issues has been enriched to reflect the Industrial Management System that constitutes the common framework for safe and reliable operations. Some procedures already implemented, in particular for risk assessment (e.g.: for contractors), management of industrial emergencies and security, were specified this year.

As part of the prevention of environmental risks, the Science Based Targets initiative (SBTi) approved Air Liquide's objective to reduce its Scopes 1 & 2 greenhouse gas emissions by 2035 as compliant with a well below 2°C trajectory⁽²⁾. The Group was the first in its industry to obtain this validation from the SBTi. Aware of the importance of contributing to the achievement of carbon neutrality throughout its value chain, in 2022, Air Liquide worked on developing its Scope 3 greenhouse gas emissions reduction strategy. The value of its customer relationships has led the Group to pledge to have 75% of its 50 largest customers committed to carbon neutrality by 2025 and 100% by 2035. Air Liquide launched the roll-out of its water management policy published at the end of 2021. In particular, a dedicated working group has prepared the guidelines and tools required for operations with high water consumption in areas of high water stress. The Group has also updated the technical standards for the monitoring and control of discharged water.

To support Air Liquide's ambition to achieve carbon neutrality by 2050, Procurement has a key role to play. The Group's Procurement Department has initiated a "Procure to Neutrality" climate roadmap based on four pillars: Measure, Engage, Value and Reduce.

Finally, after opening the whistleblowing system up to all Air Liquide stakeholders at the end of 2021, the Whistleblowing Policy was updated at the end of 2022 and made available to external stakeholders on the Group's website (<https://www.airliquide.com/sustainable-development/ethics>).

⁽²⁾ Air Liquide announced its greenhouse gas emission reduction objectives for Scopes 1 and 2 in March 2021 on a 2020 baseline. Following the acquisition of the Sasol Air Separation Units in South Africa on June 24, 2021, Air Liquide submitted to SBTi a -35% target by 2035 on a 2021 baseline in order to integrate this significant change in scope the full deployment of "market-based" reporting.

1. Risk mapping – Methodology for the assessment of the Group's operations

Since 2018, Air Liquide has assessed the duty of vigilance risks. The methodology and results of the risk mapping across the scope of the Group's activities are described below. The risk mapping for Air Liquide's suppliers and subcontractors is subject to a specific methodology described in paragraph 5.1. These two mappings are complementary to the Group's risk management approach, described on page 76. The procedures for identifying risks for Air Liquide and for the duty of vigilance are interconnected insofar as some of the salient risks, those that are the most severe for people or the environment may correspond to material risks for the Group. Thus, in terms of human rights, the risks related to the discrimination of certain categories of people are identified as societal risks for the Group as indicated on page 87 in the presentation of risk factors. Industrial risks for Air Liquide, described on page 78, may have negative impacts on people, the most salient of which are identified in the duty of vigilance mapping. The environmental risks relating to the risks of greenhouse gas emissions resulting from its activities and the physical impact of weather phenomena due to climate change are identified as having potential negative impacts on both the environment and people, as well as the Group as described on page 86.

In the second half of 2021, the risk mapping methodology for the duty of vigilance across the scope of the Group's activities was adjusted in order to refine the identification of salient risks. The approach is based on principles advocated by international standards such as the United Nations Guiding Principles on Business and Human Rights and the Organization for Economic Co-operation and Development (OECD) Due Diligence Guidance for Responsible Business Conduct.

The first step consisted in determining a risk universe by identifying the potential negative impacts that Air Liquide's activities could cause to people and the environment. The Duty of Vigilance Department determined this risk universe in collaboration with the functions responsible for duty of vigilance stakes:

- by referring to the internationally recognized human rights in the International Bill of Rights and the International Labour Organization (ILO) fundamental conventions, in particular:
 - fundamental rights and principles at work: freedom of association and the right to collective bargaining, elimination of forced or compulsory labor, abolition of child labor, elimination of discrimination in respect of employment and occupation (e.g. women representation, equal pay), a safe and healthy working environment,
 - other rights at work: work organization, wage and benefits, well-being and quality of life at work (e.g. absence of violence and moral or sexual harassment, transformation of the work environment), respect for privacy, provision of facilities (e.g. dining areas, restrooms, housing),
 - the rights of local communities: access to natural resources (e.g. water), land acquisition, lease and use (e.g. property rights and free, prior and informed consent), health, safety and security of local communities;

- by structuring issues related to human rights and fundamental freedoms and the health and safety of people around types of potentially affected individuals: Air Liquide employees, external staff present on its sites (e.g. employees of subcontractors), local and neighboring communities, customers and their employees, patients, consumers and end-users, Shareholders and lastly, other third parties such as road users; and
- by giving indications on the potential materialization of each risk identified.

The second step consists of periodically analyzing and prioritizing the risks in order to determine the most salient ones, that is to say the most severe potential negative impacts that Air Liquide's activities could cause to people and to the environment. This assessment is carried out with regard to two analytical prisms: Air Liquide's activities and the countries in which the Group operates. Risks are analyzed on the basis of two criteria to determine their salience:

- the severity, by determining which impacts would be most significant in terms of scale, scope and irremediability;
- the probability, by assessing the likelihood of the risk materializing.

The analysis of these two criteria is supplemented by monitoring (e.g. public indicators, external stakeholder assessments) to take into account possible aggravating factors that may increase the risks in certain countries or business sectors. This assessment also considers the most vulnerable groups of individuals: women, children and young people, local communities including indigenous peoples, migrant workers, people with disabilities, LGBTQ+ people, ethnic, religious or cultural minorities.

The risk mapping exercise for the duty of vigilance across the scope of the Group's activities is reviewed annually and updated as necessary.

In early 2022, and following the test of this approach with the Electronics business line, the Duty of Vigilance Department simplified the risk mapping methodology for the duty of vigilance, in particular the risk universe. On this basis, three new risk mapping exercises for the duty of vigilance were carried out:

- the collaborative approach to identifying salient risks relating to human rights and the health and safety of people initiated with some L'Air Liquide S.A. employee representatives;
- support for the German entity in carrying out the mapping for the application of the German Act on Corporate Due Diligence Obligations in Supply Chains;
- support for the Engineering & Construction World Business Unit in identifying salient risks for its employees in the countries in which it operates.

In 2022, the review of the risk mapping results for the duty of vigilance did not reveal any new salient risks. Some salient risks previously identified have been reworded to more accurately reflect the related potential negative impacts.

The table below presents a summary of the salient risks and individuals and ecosystems potentially affected for the duty of vigilance across the scope of the Group's activities in 2022.

Duty of vigilance stakes	Salient risks	Potentially affected individuals or ecosystems
Human rights and fundamental freedoms	Labor relations	Air Liquide employees
	Discrimination	
	Disparities in care coverage	
	Transformation of the work environment	
Health and safety of individuals	Violation of personal data protection	Air Liquide employees, patients, Shareholders
	Worker safety (protection against work-related accidents)	Air Liquide employees and subcontractors
	Process safety	Air Liquide employees, subcontractors, local and neighboring communities
	Road safety	Air Liquide employees, subcontractors, roadside communities, third parties
	Product safety	Air Liquide employees and customers, patients and end users
	Security of individuals (protection against external threats, in particular malicious acts)	Air Liquide employees, subcontractors, external on-site visitors, neighboring communities, customers, suppliers and Shareholders
Environment	Climate – greenhouse gas emissions, physical impact	Ecosystems, Air Liquide employees, local and neighboring communities
	Water management – withdrawal and consumption, quality	Ecosystems, local and neighboring communities

These salient risks, the assessment procedures, mitigation and prevention measures and the associated monitoring scheme are detailed in paragraphs 2, 3 and 4.

In addition to these salient risks, faced with the military conflict between Russia and Ukraine, Air Liquide has applied the principles of heightened due diligence in terms of human rights in the context of armed conflicts. Details of the measures applied are presented in paragraph 2.6.

2. Human rights and fundamental freedoms

Air Liquide is committed to respecting and promoting human rights in its operations around the world. The Group strongly believes that all persons should be treated with respect and dignity and that companies should play a role in protecting these fundamental human rights. Air Liquide shares the principles laid down in the International Bill of Rights, the ILO Declaration on Fundamental Principles and Rights at Work, the United Nations Guiding Principles on Business and Human Rights as well as the OECD Guidelines for Multinational Enterprises. These promote an ethical and responsible approach by companies in their activities and professional relations, in particular in terms of human rights, by encouraging the implementation of due diligence procedures.

Paragraphs 2.1. to 2.4. address risks for employees under the responsibility of the Human Resources functions. Under the supervision of the Vice President, Group Human Resources, member of the Executive Committee, the Group Human Resources Department determines the strategy deployed by the operational departments. The Human Resources Management Committee, comprising the Group's largest operational departments, meets six to eight times a year to monitor measures implemented and assess their effectiveness.

Paragraph 2.5 deals with the risks related to personal data protection for employees, patients and Shareholders and details the associated governance. The Data Protection Officer and the Group's Digital Security Department rely on a network of 150 correspondents for the operational implementation of personal data protection actions. The Digital Security Committee and the Ethics and Compliance Committee oversee activities related to personal data protection.

2.1. RISKS RELATED TO LABOR RELATIONS



2.1.1. Description of salient risks

Air Liquide contributes to economic and social growth in the 73 countries ⁽¹⁾ where it operates through its technical, industrial, medical and economic activities. The Group therefore identifies the applicable laws and regulations, in particular in terms of working conditions and freedom of association.

⁽¹⁾ Excluding Russia, where the entities are in the process of being divested. They are no more consolidated following the loss of control on September 1st, 2022.

Vigilance Plan

2.1.2. Regular assessment procedures

One of the pillars of the Human Resources strategy consists in boosting engagement and employability of the employees to enhance performance. To achieve this, relations with social partners are crucial. They allow for the creation of a positive work environment. In light of local regulations, situation and needs, each Group entity defines, in agreement with the employee representative bodies, where they exist, the **work organization** that will promote engagement and performance. Each year, the share of employees who have access to a dialogue structure with the management is reported by the entities. Formal dialogue structures (e.g. employee representative bodies), equivalent informal structures, or other forms of direct dialogue with the management of the entity are taken into account in this assessment.

2.1.3. Appropriate actions to mitigate risks and prevent severe impacts

Air Liquide is committed to meaningful labor relations in all of its subsidiaries. This comes in different forms according to local regulations.

In Europe, the European Works Council has 29 employee representatives from 12 countries. It was renewed in 2021 for a term of four years. In 2022, two plenary meetings were held under the chairmanship of a member of the Executive Committee. An exceptional plenary meeting was organized to inform and consult the Council on the implementation in Europe of the Group's project for the transformation of Human Resources processes and organization and the deployment of a new management tool for Human Resources. In addition, the European Works Council Board, composed of five members elected in a plenary meeting, met five times in 2022 to be informed on various projects and topics of interest affecting several European countries. In 2022, plenary and Board meetings were held, some of them remotely and others face-to-face, at key sites such as Lisbon and Krakow.

Every year, the Chairwoman of the European Works Council issues a report on various topics relating to the Group's businesses. In 2022, the following main points were presented: the roll-out of the Code of Conduct updated at the end of 2021, the new ADVANCE strategic plan, the Group's annual results and more specifically in Europe, results related to extra-financial performance (e.g. safety, reliability, staff turnover rate, training, diversity).

As part of the Group's "Next Normal" project to support the transformation of work (paragraph 2.3.3), the European Works Council set up a dedicated work group in 2021 to collect feedback and suggestions from employee representatives, as key stakeholders for Europe-specific topics. In 2022, this work led to the drafting of a reference document sharing in particular guidelines for social dialogue in European entities and New Design of Offices attention points.

The principles of the duty of vigilance, its French and, more broadly, European regulatory stakes, as well as the implementation of the French requirements with the Air Liquide Vigilance Plan, were presented at the second plenary meeting of the European Works Council in 2022. This presentation included the collaborative approach to identifying salient risks relating to human rights and the health and safety of persons initiated with some L'Air Liquide S.A. employee representatives.

In addition, in 2022, the Duty of Vigilance Department presented Air Liquide's Vigilance Plan to several Social and Economic Committees in France.



IN TÜRKIYE, AIR LIQUIDE STRENGTHENS LABOR RELATIONS

In 2022, in Türkiye, the My Voice engagement measurement and monitoring program (paragraphs 2.3.2 and 2.3.3) identified employee expectations in terms of labor relations and communication as an opportunity for action. Air Liquide Türkiye already organizes an annual town hall meeting in January during which the entity's management presents the results of the past year and shares the priorities for the coming year. During this meeting, employees have the opportunity to address their questions to management. In the last quarter of 2022, other initiatives were launched for roll-out in 2023, including a single point of contact (SPOC) for each site program that will complement the usual employee communication channels (managers, HR, etc.). At the end of the year, the mission of the SPOCs was defined and the people who will take on this role were identified among the leadership team outside the hierarchical line.

2.1.4. Monitoring scheme of measures implemented and the assessment of their effectiveness

The Group ensures that labor relations are encouraged and, as part of this, 86% of Group employees had access to a dialogue structure in 2022.

	2020	2021	2022
Share of employees with access to a dialogue structure	81%	82%	86%

2.2. RISKS RELATED TO DISCRIMINATION



2.2.1. Description of salient risks

Air Liquide carries out activities with high technological content in a large number of countries with different cultures. Risks related to discrimination, mainly with regard to gender diversity (gender disparity, in particular in technical or expert occupations), disability, race, origin, religion, sexual orientation and gender identity or age could affect the Group's employees.

2.2.2. Regular assessment procedures

One of the pillars of the Human Resources strategy consists in building an agile, inclusive and collaborative organization capable of addressing the challenges of a continuously changing world. Inclusion and Diversity, sources of strength and drivers of innovation and performance, are among the priorities of the Group's Human Resources strategy and policy. These are a fundamental element of the organization, in terms of both businesses and employees, and drive Air Liquide's long-term performance. Defined at Group level, the Inclusion and Diversity policy is then applied locally in its subsidiaries.

To assess and manage discrimination-related risks, Air Liquide rolled out in the past a policy based on four cornerstones: age, gender, disability and nationality. To cover the various forms of diversity and promote a more inclusive culture, Air Liquide changed its policy, striving to **fight against any form of discrimination**.

The Group's objective is to increase diversity among managerial staff to better enhance the many cultures from which Air Liquide employees come and to improve gender equality. In this respect, quantified gender equality targets have been set for the Group. The local entities carried out an assessment of the current situation to define an objective at the cluster (group of countries) level and thus contribute to the overall objective.

At the entity level, the objective is to have teams composed of employees who are representative of the country in which they work. Therefore, each entity is responsible for implementing action plans specific to the country and its legal framework regarding various forms of diversity (race, disability, origin, ethnicity, religion, sexual orientation, etc.).

2.2.3. Appropriate actions to mitigate risks and prevent severe impacts

Within the central Human Resources organization, a team leads Inclusion and Diversity projects. The roadmap promoting Inclusion and Diversity in the Group is based on three pillars:

- deploying the diversity objectives in all entities and implementing corresponding action plans;
- improving the Group's Human Resources processes to reduce any bias and avoid all forms of discrimination;
- promoting an inclusive culture to leverage teams' diversity.

Each hub and business implements its own roadmap and action plans contributing to Inclusion and Diversity, taking the local context into consideration. As part of this approach, they analyze processes and practices, identify potential biases and implement corrective measures ("nudges") to limit them. Thus, during the regular reviews of talents with high potential, the diversity of profiles is taken into account, with the aim of continuing to increase diversity in the Group's key positions. This serves as a way to promote the many cultures present within the Group, and to strengthen gender equality.

Finally, the promotion of an inclusive culture also contributes to a sustainable approach to diversity. Numerous initiatives are deployed within the Group to this end: events, learning opportunities, mentoring, networks and communities for different interest groups such as women's careers.



AIR LIQUIDE CONTINUES THE ORGANIZATION OF A DIVERSITY MONTH

Called "Diversity Awareness Month", October 2022 was an opportunity to bring together nearly 1,000 Group employees through six webinars addressing the topics of psychological safety at work, the importance of connectedness, the different cognitive biases affecting objectivity and the different forms of discrimination. In addition, employees involved in the second edition of the Inclusion Movement were able to share what they learned from the 30 or so pilots carried out in previous months in their entities to introduce new inclusive practices into their daily lives.

Gender equality

2025 OBJECTIVES

When announcing its sustainability objectives in 2021 and its new strategic plan ADVANCE for the 2022-2025 period in March 2022, Air Liquide affirmed its ambition to act as a trusted partner and for all and its commitment to promoting Inclusion and Diversity. Air Liquide has set two objectives for gender diversity by 2025:

- reach a 35% share of women in the "Managers and Professionals" population, versus 31.5% ⁽²⁾ currently.
- reach a 25% share of women in Executive positions, compared to 24.8% currently.

The **Inspiring Air Liquide Women** project contributes to Air Liquide's Inclusion and Diversity roadmap. It highlights the paths of women working within the Group from all walks of life, all geographies and all professional backgrounds to inspire other female employees with the aim of encouraging them to **dare to achieve their ambition and objectives** both personally and professionally. Inspiring Air Liquide Women is a way to celebrate the many female achievements within the Group. These stories of 120 women from 43 different nationalities were published in 2022 on a dedicated website (<https://inspiringwomen.airliquide.com/about>) to celebrate Air Liquide's 120th anniversary.



AIR LIQUIDE SUBSIDIARIES ENGAGE IN MENTORING AND NETWORK INITIATIVES TO ACHIEVE THEIR GENDER EQUALITY GOALS

The Industrial Merchant teams of Air Liquide Belgium launched the "Ladies dinner" initiative to improve the attractiveness of Air Liquide among women engineers. Women engineers are invited to meet female employees of the subsidiary who present the Group's activities to them.

Air Liquide Brazil launched the "Women in Operation" initiative to welcome recently graduated women to the teams and give them the opportunity to grow. In the medium and long term, this initiative could also increase the proportion of women in the Technical Community Leaders (TCL) program ⁽³⁾. A mentoring program has also been developed to support this initiative.

Gender equal pay

In France, the law of September 5, 2018, known as the *Loi avenir professionnelle* relating to the freedom to choose one's professional future, requires companies with more than 50 employees to implement an annual mechanism for assessing gender pay gaps, the result of which is a public social score for the Company (out of 100 points). The Professional Equality Index and five related indicators must also be made available to the Social and Economic Committee and transmitted to the French administration.

⁽²⁾ The share of women among "Managers and Professionals" is rounded off in increments of 0.5%.

⁽³⁾ The Technical Community Leaders (TCL) program enables talents in technical domains to access career paths that offer them both recognition of their technical expertise and opportunities to develop and evolve in the field of this expertise.

Vigilance Plan

In 2022, the Group's 30 companies with at least 50 employees in France were evaluated. The weighted average Professional Equality Index stands at 90.5/100, maintaining the trend compared to 2020 and 2021. The company L'Air Liquide S.A. published its fifth annual Professional Equality Index, which reached 97/100.

Outside of France, the Group initiated, in 2019, a common process to assess the gender pay gap by creating an internal index based on the French index but tailored to Air Liquide's global presence. It was first deployed for entities with more than 400 employees for the years 2019 and 2020.

For the year 2021, the scope of the index has been extended to entities with more than 200 employees and the calculation method was revised. The updates, including the use of the median salary and job grading, are intended to provide a more accurate result.

This index from the year 2021 onwards is calculated on the basis of the weighting of four criteria:

- pay gap between women and men, using the median salary per job grade;
- individual wage increase gap between women and men per job grade;
- percentage of employees having received a salary increase after a maternity leave;
- gender diversity among the 10 highest remunerations.

The 2021 index, calculated in 2022, was 75/100 for a coverage of 74% of the Group's employees.

Inclusion of disabilities – one of the Group's priorities

To promote the inclusion of disabilities, Air Liquide intervenes at two levels:

- with its employees, in particular via the HandivAirsity initiative;
- with its suppliers, by developing relationships with companies which make their employment policies and practices inclusive of people with disabilities (i.e. disability-inclusive companies).

Launched in 2017 at the European level, the **HandivAirsity initiative** aims at encouraging diversity by integrating people with disabilities into teams.



"Our differences make our performance." This slogan carries a strong conviction. The inclusion of disabilities is fully in line with the policy to promote Inclusion and Diversity within Air Liquide.

This desire is not new; it has been embodied since 2007 in successive agreements in France which have advanced the policy of welcoming, maintaining and promoting the professional development of people with disabilities. Air Liquide is committed to finding solutions to enable people with disabilities to remain in employment. The following adjustments are planned to accommodate for disabilities in the workplace:

- ergonomic studies and adaptation of the workstation with regard to the capacities of the person;
- specific equipment and tools;
- adaptation of methods of access to work premises and specific training services;
- transportation and moving assistance.

Air Liquide raises awareness among teams about the inclusion of disabilities in order to facilitate the welcoming and professional integration of workers with disabilities in the company. The French subsidiaries have awareness-raising plans in order to strengthen the level of information for all stakeholders and fight against any prejudices that may persist. In 2022, a survey was carried out among employees in a selection of French entities to gain a better understanding of the obstacles to the inclusion of people with disabilities in the teams and thereby determine appropriate actions. The results of this survey will be shared more widely with the European disability coordinators. The French entities participate in particular in DuoDay, a day where they welcome a person with a disability paired with a volunteer professional.

Within a scope covering around 6,000 employees based in France, a fifth Disability agreement for a period of three years (2020-2022) was signed at the end of 2019. The aim of this agreement is to continue with measures already implemented in favor of people with disabilities and thus further improve the direct employment rate to reach 4.2% in 2022 vs. 3.3% in 2018. The 2021 rate, calculated in April 2022, is 4.43% (4.35% in 2020). Negotiations with the labor unions, which began at the end of 2022, resulted in the signature of a sixth Disability agreement for the 2023-2025 period.



IN FRANCE, AIR LIQUIDE ORGANIZES A CO-CONSTRUCTION DAY ON DISABILITIES

85% of disabilities occur during the course of a person's life and therefore during their career. In 2022, in addition to the sustained efforts made over the past 15 years to recruit people with disabilities, a co-construction day was held at the end of June to further reflect on the "recognition" of disability situations and the way they are taken into account. This event gathered 34 participants representing all French entities and all activities (Human Resources managers, disability inclusion local leaders, managers, employees, people with disabilities, employee representatives, etc.). The proposals for action discussed and formulated during this day will help to respond as effectively as possible to the needs for appropriate support for those involved in disability inclusion. These proposals have been particularly inspiring in the negotiations for the sixth Disability Agreement 2023-2025, while strengthening the dialogue between the stakeholders.

More widely in Europe, other concrete actions were also carried out to change the way disability is seen in operations and accelerate the pace of recruitment: ambassadors campaign, and a working group with managers.



IN THE UNITED KINGDOM, AIR LIQUIDE PROMOTES NEURODIVERSITY

As part of the "Read My Mind" initiative, which addresses the questions around mental health and provides support to employees, Air Liquide United Kingdom focuses on raising awareness on Neurodiversity. Two "Neurodisability understood" Lunch&Learn sessions have been organized: one for all employees and one dedicated to line managers in order to discuss how to manage neurodiverse employees and the specificity they could face. Line managers were also invited to a day workshop with an external partner who provided them with tips to support their own and their team's mental health.

Measures have also been taken to contribute to the so-called “indirect” employment of people with disabilities, through the **purchase of goods and services from disability-inclusive companies**. This sector includes organizations for the social and professional integration of people with disabilities (ESAT), self-employed workers with disabilities (TIH) as well as adapted enterprises (EA).

In France, Air Liquide declared 1.5 million euros spent with disability-inclusive companies for the year 2021. The social footprint of these purchases represented 71 jobs created or maintained in 2021 ⁽⁴⁾.

Since 2018, in France, Air Liquide has organized five annual editions of the “Business Meeting Inclusive Procurement” bringing together Air Liquide key players and disability-inclusive companies to promote procurement to them. In 2022, this event, co-hosted with the Handeco association, was conducted in a digital and face-to-face format through a round table, presentations and speed-meetings. Nearly 100 Air Liquide employees and 10 suppliers from the disability-inclusive sector took part in this event.



INCLUSIVE PROCUREMENT, A PATH TO EMPLOYMENT

During the 2022 “Business Meeting Inclusive Procurement”, The “Inclusive procurement, a path to employment” round table explored ways of integrating people working in disability-inclusive companies into the traditional business world with adapted assignments and positions. On this occasion, the Campus Technologies Grenoble, the first pilot entity in the recruitment of people with mental disabilities, presented its experience. This ambitious and unprecedented project within the Group was made possible by several factors:

- the long-standing presence of workers, employed by a subcontracting disability-inclusive company, within a team in the entity;
- the availability of similar tasks and permanent job positions on the same site to ensure an adapted activity over the long-term;
- the involvement and flexibility of the team of Air Liquide employees welcoming the workers.

In addition, for the second year in a row, the Air Liquide Inclusive Procurement European Forum was organized in 2022. During this forum, bringing together nearly 200 participants from operations, procurement as well as suppliers, experiences from France, Spain and the United Kingdom were shared to increase awareness and foster relationships with disability-inclusive companies.

Fighting other forms of discrimination

The definition and understanding of the different forms of discrimination vary depending on the national or local context. The fight against discrimination must therefore be handled in a manner fitting with these disparities. This is why actions are also taken locally to adapt the procedures implemented by the entities to fight other forms of discrimination.

In the United States, in order to develop a more inclusive culture, communities in networks called “Business Resource Groups” (BRG) have been created to promote diversity, in particular with regards to women, veterans, African-Americans, LGBTQ+, Hispanic and Asian Americans.

The Human Resources Department of Air Liquide U.S., with the help of the BRGs, has created a “Diversity & Inclusion Learning On Demand Toolkit” offering resources to employees to improve their knowledge about Diversity & Inclusion. This initiative supports efforts to improve behaviors and work methods that promote a culture of inclusion. This toolkit contains topics, in a variety of formats, classified by level of knowledge and target audience, for example:

- Inclusion and Belonging;
- Allyship and Equality;
- Gender Identity;
- Courageous Conversations;
- Walk in my shoes.



IN THE UNITED STATES, AIR LIQUIDE IS RECOGNIZED FOR THE INCLUSION OF LGBTQ+ PEOPLE

In 2022, Air Liquide U.S. received for the third consecutive year the “Best Places to Work for LGBTQ Equality” distinction awarded by the Human Rights Campaign Foundation, which rewards companies that implement policies and procedures that promote equality of LGBTQ+ people at work. The Group is committed to ensuring the well-being of all its employees and will therefore continue, like American employees, to promote a culture of Inclusion and Diversity.

2.2.4. Monitoring scheme of measures implemented and the assessment of their effectiveness

In terms of gender equality, Air Liquide has created its own procedure to define its reporting methods for Human Resources. This procedure includes all of the definitions, measurement procedures and collection methods for this information. Each month, the subsidiaries update the indicators in the Group’s reporting tool.

Gender equality

	2025 objectives	2020	2021	2022
Share of women among “Managers and Professionals” ^(a)	35%	30%	31%	31.5%
Share of women in Executive positions	25%	21%	24%	24.8%

(a) The share of women among “Managers and Professionals” is rounded off in increments of 0.5%.

⁽⁴⁾ The social footprint is calculated by dividing Air Liquide’s purchases from disability-inclusive companies for the reference year by the full-time equivalent of a worker with disabilities (2,000 times the French hourly minimum wage).

Vigilance Plan

Gender equal pay

	2020	2021	2022
Professional Equality Index in France ^(a)	88.4	86.5	90.5
Internal equality index for the Group ^(b)	82 ^(c)	75 ^(d)	—

(a) Index calculated on a 100-point scale for Group companies in France with more than 50 employees.

(b) Index calculated on a scale of 100 points.

(c) Results for 2020 calculated in 2021 on a scope representing 61% of the Group's workforce (entities with more than 400 employees).

(d) Results for 2021 calculated in 2022 on a scope representing 74% of the Group's workforce (entities with more than 200 employees).

The result of the 2021 internal equality index for the Group, calculated in 2022, is 75/100 for a coverage of 74% of the Group's workforce (entities with more than 200 employees), while the result of the 2020 index was 82/100 for a scope covering 61% of the workforce (entities with more than 400 employees). The decrease in the result, observed in 2022, is linked in particular to the expansion of the index scope to include entities with more than 200 employees, thus integrating countries with greater social disparities. An action plan has been rolled out in light of this index:

- part of the "Merit Increase" budget was allocated to filling gender pay gaps;
- awareness workshops on the index criteria were organized for the HR functions.

2.3. RISKS RELATED TO THE TRANSFORMATION OF THE WORK ENVIRONMENT



2.3.1. Description of salient risks

The work environment is characterized by the accelerated evolution of society and the economy, with digitization, rapid technological development and new business models. An intense workload can create psychosocial risks such as stress, work-life imbalance and thus affect the well-being, health and level of engagement of Group employees.

2.3.2. Regular assessment procedures

Employee engagement is one of the Human Resources' priorities. Air Liquide has launched a program called My Voice to **measure and monitor employees' engagement**. It aims to improve employee experience and well-being. It is based on a simple concept: listen, understand and act. Following the launch of the initiative in Asia Pacific in 2019, feedback is gathered annually from employees across the Group to obtain a better understanding of their expectations and to identify and roll out appropriate measures – and, as a result, significantly increase their engagement.

A short survey covering some 20 topics is sent to each employee with room to leave comments if desired. The questions cover areas such as safety, work-life balance, career development, inclusion, empowerment, career development and manager trust. Answers are completely anonymous and confidential to ensure that employees are free to express their thoughts. Results are collected in real-time, aggregated and analyzed by means of a shared system for the entire Group. Each manager has access to the results from their team – provided that the thresholds needed to guarantee confidentiality are respected.

2.3.3. Appropriate actions to mitigate risks and prevent severe impacts

The Group ensures that it builds a performance-focused, attractive and collaborative work environment while also safeguarding the health and well-being of employees in their workplace.

Focus groups have been set up aiming at promoting the work-life balance of employees to strengthen their well-being at work. This work resulted in the adoption of principles co-constructed with the European social partners. In 2019, the Group partnered with the European Works Council to develop the "Care and Perform" initiative, whose purpose is to prevent psychosocial risks. This initiative led to the drawing up of a charter based on principles of action relating to improvement of organization, workload and the work-life balance of employees. The content of this charter facilitated the signing of company agreements with social partners in order to offer new services to employees. In several European countries, agreements have been concluded to meet specific needs and support the transition toward new working conditions, in particular on the right to disconnect and remote working. In addition, certain entities, such as Air Liquide Belgium and Air Liquide Advanced Technologies, have included in this type of agreement the "Friday afternoon no meetings" initiative, which allows employees to have time available for tasks requiring concentration.

More generally, within the context of changes to the Group's organizational models, which were accelerated by the covid-19 pandemic, Air Liquide launched a global project in 2020 called "Next Normal" to support this shift in working methods.

With this project, the entities can provide their employees with:

- a new working framework including team management;
- a structured remote working policy;
- reorganization of workspaces;
- a framework for rethinking customer and patient interactions;
- a new framework for a responsible travel policy at Air Liquide.

To facilitate the deployment of the project, Air Liquide developed a reference guide in 2021. First shared with managers, the guide helps the entities to set up new working methods based on the first global experiences. Work groups were then organized with employees in the entities to validate the commitments.



AIR LIQUIDE ENTITIES IMPLEMENT THE "NEXT NORMAL" PROJECT

In 2022, Air Liquide Bulgaria launched a complete renovation of its offices in order to adapt to new ways of working. The environment aims to be more collaborative and promote teamwork.

Air Liquide Brazil launched the "One Company" project, which aims to provide offices aligned with the principles of the "Next Normal" project (collaboration, technology and innovation, well-being and flexibility) for its employees in order to improve their experience.

With the My Voice program, Air Liquide strives to offer all employees a successful professional experience, that promotes listening and dialogue, at every stage of their career with the Group. Paying close attention to the employee experience is a key factor in attracting, retaining and developing employees.

Each year, following the collection of feedback and precise analysis of the results, targeted actions are launched at different levels in the organization: with managers and their employees to improve team dynamics, at the level of the entities by management teams and at the Group level. At this last level, the results of the program allowed the Group to:

- implement initiatives to improve communication and education on the way compensation packages are set up;
- strengthen the sharing of information concerning the Group's major strategic orientations with all employees, which has notably been reflected in the communication about ADVANCE, the new strategic plan.

THE ENGINEERING & CONSTRUCTION WORLD BUSINESS UNIT LAUNCHES THE "QUALITY OF LIFE AT WORK" INITIATIVE

In addition to the "BeActEngage" model, rolled out across the Group in 2020 and enabling employees to develop in a safe, ethical and engaging environment to deliver long-term performance, the Engineering & Construction World Business Unit launched the "Quality of Life at Work" initiative. This initiative aims to promote work-life balance while creating a flexible work environment. In addition, it aims at encouraging employees to be proactive in their well-being at work by providing advice that they can easily implement. Lastly, a mental health support scheme (The Fürstenberg Institut) was opened to employees. It provides access to consultations on employees' personal or professional issues.

2.3.4. Monitoring scheme of measures implemented and the assessment of their effectiveness

	2020	2021	2022
Response rate for the annual My Voice survey	80%	83%	77%

Since its launch, the My Voice program has confirmed Air Liquide's strengths which contribute to employee engagement and identified opportunities in order to provide appropriate responses as soon as possible (paragraph 2.3.3). The results of the survey also confirmed the overall satisfaction of employees with the support provided by the Group during the covid-19 health crisis.

2.4. RISKS RELATED TO DISPARITIES IN CARE COVERAGE



2.4.1. Description of salient risks

While all Air Liquide employees have care coverage in accordance with local regulations, disparities between countries could create inequitable situations within the Group. Furthermore, local standards may not, in some cases, be sufficient to provide employees with adequate and fair social protection.

2.4.2. Regular assessment procedures

These risks are linked to Air Liquide's presence in 73 countries⁽⁵⁾ with a **variety of social protection systems**.

In 2020, a project was launched within the Human Resources Department to organize a survey among its correspondents in all the entities. The resulting form containing about 10 questions was designed to better understand the level of care coverage existing in the entities.

In 2021, an in-depth assessment was performed in addition to the survey to:

- map the existing social benefits;
- identify the contrasting situations between countries;
- assess the deviations from market standards and thus define a common basis of care coverage to best meet the concerns of employees.

Following this assessment, Air Liquide decided to offer a common basis of care coverage to employees. This commitment is described in the following paragraph.

2.4.3. Appropriate actions to mitigate risks and prevent severe impacts

2025 OBJECTIVE

When announcing its sustainability objectives in 2021 and its new strategic plan ADVANCE for the 2022-2025 period in March 2022, Air Liquide affirmed its ambition to act as a trusted partner and for all and its commitment to offer a common basis of care coverage for 100% of employees by 2025. This care coverage will guarantee:

- a life insurance policy with an indemnity equivalent to a year's salary;
- a health coverage that includes inpatient and outpatient care;
- a minimum of 14 weeks paid maternity leave.

From May to September 2021, entities were grouped by country so that gaps in their current coverage could be assessed and a plan devised to phase in upgrades by 2025.

A special team was set up within the Human Resources department to oversee the plan's roll-out and measure progress within the Group on an annual basis. In addition, in 2022, each hub drew up a 2023-2025 roadmap to achieve the objective.

⁽⁵⁾ Excluding Russia, where the entities are in the process of being divested. They are no more consolidated following the loss of control on September 1st, 2022.

Vigilance Plan

2.4.4. Monitoring scheme of measures implemented and the assessment of their effectiveness

Since the announcement of its commitment in 2021, the Group has defined a new indicator to monitor the annual progress in its implementation.

	2025 objective	2021	2022
Share of employees benefiting from the common basis of care coverage ^(a)	100%	34%	42%

(a) Share of employees benefiting from the three social benefits (life insurance, health coverage, maternity leave).

In 2022, the proportion of employees benefiting from the common basis of care coverage program was 42%, thanks to the progress made in particular with regards to:

- the life insurance coverage in all geographies;
- maternity leave in the Middle East and Africa geography and the Engineering & Construction World Business Unit; and
- health coverage in the Middle East and Africa geography.

2.5. RISKS RELATED TO THE VIOLATION OF PERSONAL DATA PROTECTION

2.5.1. Description of salient risks

Personal data can be used dishonestly in order to violate the privacy, rights and property of individuals, or for the purposes of discrimination. The people most likely to be exposed to these risks in the context of Air Liquide's activities are the 1.9 million home healthcare patients treated by Air Liquide, the nearly 750,000 individual Shareholders and the 67,100 Group employees.

2.5.2. Regular assessment procedures

The level of risk of **violation of the privacy of individuals** varies according to the nature, sensitivity and scope of personal data entrusted to and necessary to Air Liquide in the course of its activities.

Operating entities describe the personal data they own or use and the appropriate protection measures. The assessment of this risk and the corresponding security measures are validated during the creation of or implementation of major changes to the processing of personal data (in particular when revising the operational processes or IT tools supporting them).

The points assessed include in particular:

- the nature of the personal data (for example patient health data, asset and financial data of Shareholders, family or financial data of employees);
- the purposes of the processing of personal data;
- the functions that process personal data within Air Liquide;
- third parties to whom personal data may be entrusted or transferred outside the Group;
- the possible transfer of personal data outside the European Union.

This information as well as the protective measures are grouped together in the record of personal data processing activities.

2.5.3. Appropriate actions to mitigate risks and prevent severe impacts

In May 2018, Air Liquide adopted and had the European data protection authorities approve Binding Corporate Rules (BCR) which embody the Group's commitment to the protection of personal data. Considering European regulations to be among the most protective in the world, Air Liquide, through the BCR, provides the same level of protection in all of its operating entities.

The BCR provide for:

- the adoption of a personal data protection policy accessible to all on the Group's website (https://www.airliquide.com/sites/airliquide.com/files/2018/05/23/air_liquide_bcr_global_privacy_policy.pdf);
- the appointment of a Data Protection Officer (DPO) who relies on a network of more than 150 regional or local Information Protection Coordinators (IPC) distributed throughout the Group (by hub, cluster (group of countries), activity or operating entity) to steer and coordinate actions to protect personal data;
- the signing of contracts between L'Air Liquide S.A. and its subsidiaries which formalize the commitment of the subsidiaries to the BCR;
- and the deployment of tools such as:
 - records of personal data processing activities,
 - initial employee training and refresher courses on the Code of Conduct given every two years, which took place in 2022,
 - taking into account the protection of personal data by default and from the design stage of the processing,
 - risk analyses regarding the protection of personal data,
 - various means available to contact the DPO and IPC to allow internal or external natural persons to make a request to exercise their rights as specified in the Group's personal data protection policy (Rule n°6) or to report any personal data protection violations.

Personal data processing identified as having the greatest impact on people (for example, processing of patients' personal data) is reviewed annually by internal experts.

In addition, the update of the Group's Code of Conduct, rolled out in 2022, includes a section devoted to the protection of personal data.

2.5.4. Monitoring scheme of measures implemented and the assessment of their effectiveness

Since May 2018, regular processes have been measuring the volume of requests to exercise rights and of possible personal data violations and the contractual adherence of Group entities to the Binding Corporate Rules (BCR). The system for recording requests to exercise rights and reporting any violation of personal data is presented in paragraph 6 dedicated to the whistleblowing system.

In order to measure the level of maturity of the Group's entities with regard to the protection of personal data, a self-assessment questionnaire is gradually being rolled out within the Group. Most European entities started this process in 2021. It was extended to the remaining European entities and IT, R&D and Engineering & Construction activities in 2022. The roll out will end in 2023 with the Americas, Asia Pacific, and Middle East and Africa hubs.

This questionnaire covers:

- the existence of a BCR adherence contract;
- the presence of a local representative of the Data Protection Officer – DPO – (the local Information Protection Coordinator – IPC – or another person in case of a specific obligation deriving from a country's legislation);
- the existence of the records of personal data processing activities;
- employee training;
- protection analyses by design and by default, risk analyses;
- the process for exercising rights and reporting possible data violations;
- contractual clauses with third parties (in particular with subcontractors to which Air Liquide entrusts the processing of personal data on its behalf);
- requests for access to personal data by State authorities or security services. This question will be added in 2023 in order to identify possible violations of personal data protection by these authorities or services and, where appropriate, trigger additional protection measures or end transfers of personal data in these countries.

The questionnaires are reviewed and checked by the regional IPC and the DPO. The level of maturity of entities is assessed on a four-point scale and aggregated at Group level.

Activities related to the protection of personal data as well as the results of these various measures are presented internally to the Digital Security Committee, and the Ethics and Compliance Committee, as well as to the Audit and Accounts Committee of the Board of Directors.

Lastly, the Group's Internal Audit Department includes the protection of personal data in the planned audits of entities or conducts audits specific to the protection of personal data as part of the internal audit plan or at the request of the DPO.

	2020	2021	2022
Exercise of rights and alleged violations of personal data	34	56	50
Number of subsidiaries adhering to the BCR ^(a)	351 of 399	341 of 375	342 of 379 ^(b)
Maturity assessment ^(c)	—	2.74	3.01
Number of audits carried out	4	2	7 ^(d)

(a) The number of subsidiaries adhering to the Binding Corporate Rules (BCR) is measured in relation to the number of subsidiaries concerned, that is to say the subsidiaries with employees. Their number varies each year depending on changes in the Group's scope.

(b) The number of subsidiaries adhering to the BCR in 2022 represents 98% of the Group's employees.

(c) The questionnaire is rolled out gradually since 2021. Maturity is assessed on a four-point scale.

(d) Including one audit specific to the protection of personal data and six general audits of entities including a component relating to the protection of personal data.

2.6. SITUATION FACED WITH THE MILITARY CONFLICT BETWEEN RUSSIA AND UKRAINE

Faced with the military conflict between Russia and Ukraine, Air Liquide has applied the principles of heightened human rights due diligence in conflict-affected contexts.

The priority objective was to guarantee the **safety of its employees and other people who could be impacted by Air Liquide's activities** in Ukraine and Russia, and particularly the most vulnerable exposed to **risks that may impact their health**. The approach involved several components:

- the assessment of the context in which Air Liquide's activities were operated locally;
- the identification of potential negative impacts on people and the environment in the context of (i) maintaining certain Air Liquide activities in Russia in the context of international sanctions, or, alternatively, (ii) the Group's withdrawal from its operations in Russia;
- the implementation of appropriate actions to mitigate identified potential or occurring impacts.

This approach was implemented as part of a coordinated organization at two levels, within a Group "strategic" unit and an "operational" unit at the level of the cluster (group of countries) supervising activities in these geographies. The actions focused on the following salient risks before the loss of control over Russian entities on September 1st, 2022:

- the priority concerned **employee safety**. Before the start of the conflict, Air Liquide's presence in Ukraine was limited to commercial representation and engineering services for the Engineering & Construction World Business Unit. Although the local activity is at a standstill, the Group has reorganized the work of its 14 Ukrainian employees towards projects outside the country thanks to the use of digital tools. Information on the development of the situation was regularly communicated by their management and by the Hub Security Officer in Europe to directly exposed employees, as well as to the entire Group. External listening and telephone support systems were set up to provide psychological support to employees who so wished, both in Ukraine and in Russia. Despite the banking restrictions, employees located in Russia, nearly 720, continued to receive their salaries. Appropriate measures have been taken to allow non-Russian employees to leave the country if they so wish;
- the Group rigorously applies international sanctions against Russia and continued to deliver medical oxygen to hospitals so as not to affect the **health of people** that are dependent on it;
- given the extremely complex situation the Group had to face, following the immediate decision to suspend all foreign investments in Russia and projects underway, on September 2, 2022, the Group announced its intention to withdraw from its operations in Russia. A memorandum of understanding was signed with the local management team with the aim of transferring its activities in Russia as part of a Management Buy Out. The completion of this project remains subject to the approval of the Russian authorities. The Group's activities in Russia are no longer consolidated since September 1, 2022. In order to avoid **penalizing employees**, the elements related to the terms and conditions of employment were taken into account as part of the project to transfer the activities.

This sudden event has led the various teams involved to draw lessons from the experience so that additional measures can be integrated into certain operational processes in other geographies, to take into account the risks of severe impacts on people in the context of political or armed conflicts.

3. Health and Safety/Security



Safety and security are fundamental values for the Group and the “zero accidents, on every site, in every region, in every entity” ambition remains a key priority. The Group, as a responsible industry player, is therefore committed to efficiently and under all circumstances reducing the exposure of its employees, subcontractors, customers, patients and suppliers to professional and industrial risks. This ambition was reaffirmed when the strengthened sustainable development objectives were announced in March 2021.

Safety and security refer to the measures and practices implemented to preserve the life, health and physical integrity of individuals. Safety is achieved by controlling process, road, occupational and product risks. Security is achieved by protecting sites and operations, notably against malicious acts, and by controlling the travel process

The safety results for the past 30-plus years illustrate the long-term effectiveness of the Group’s actions in this area.

3.1. A FRAMEWORK FOR SAFE AND RELIABLE OPERATIONS

Industrial risks are linked to the various industrial products, processes and distribution methods implemented by the Group. They are distributed over a large number of local production sites.

To assess and manage these risks, the Group has an Industrial Management System (IMS), which operates based on:

- the accountability of the departments of the various Group entities for the implementation of this system;
- the issue of key management and organizational procedures that aim to ensure:
 - compliance with standards and regulations,
 - competence management (training, qualifications if necessary, and more),
 - process risk management,
 - occupational health, safety and environmental management,
 - road safety management,
 - industrial emergency management,
 - management of change,
 - management of maintenance,
 - control of products and services from providers,
 - management of installation projects,
 - management of product development,
 - management of production and service provision,
 - incident reporting and investigation,
 - management of industrial audits,
 - integration of shared technical standards within the Group entities.

The IMS is fueled by years of experience and designed with a constant concern for the safety of the Group’s employees, subcontractors, customers, patients, suppliers and the communities in which Air Liquide operates.

The IMS document library aims to document the Group’s knowledge and requirements to ensure the safe and reliable operation of its industrial processes. It is continuously updated and enriched.

As the Group’s businesses grow, the level of requirements of its customers increases and Air Liquide’s commitment to societal responsibility is strengthened, new challenges and opportunities arise. Thus, building on the experience acquired, a project was carried out to adapt the IMS. While maintaining the strong fundamentals established since 2005, the framework was simplified, roles and responsibilities made clearer and governance strengthened, making the IMS easier to apply to daily operations and therefore even more effective.

The Safety and Industrial System Department and the Industrial Departments of the World Business Lines, under the supervision of a member of the Executive Committee, supervise and control the implementation of the IMS, by notably relying on:

- various dashboards designed to monitor performance in terms of safety;
- process audits to verify the implementation conditions and compliance of operations with IMS requirements;
- thorough safety reviews prior to the start-up of any new production unit to prevent any accidents due to a construction defect;
- technical audits to ensure the compliance of operations with Group rules.

A regular assessment of industrial risks that may affect individuals covers all Group activities in all geographies. The frequency of these assessments is adapted to each subject: for example, monthly safety performance reviews or an annual review of technical audits. Other topics require evaluations at ad hoc intervals, such as for the covid-19 pandemic, where after several months of very frequent monitoring in 2020 and 2021, the frequency of monitoring meetings was reduced, thus being consistent with the evolution of the health context, which has become less critical.

The Industrial Management System, IMS, institutionalizes the methodical “Plan – Do – Check – Act” approach which is essential for process safety.

The efforts made to carry out risk assessments are bearing fruit and the lessons learned from incidents are being used to strengthen the safety barriers of the installations, thus preventing the recurrence of incidents.

Subsidiaries regularly report all safety and security events in the Group’s reporting tool. This tool was replaced at the beginning of 2021 to improve both the quality of the information reported and the monitoring of corrective action plans.

Each month, every event reported is reviewed by a team of experts. The most serious events are analyzed in detail and lessons learned are shared with Group entities that could be potentially affected by similar situations.

The Industrial and Safety Committee is composed of the heads of the five Industrial Departments of the World Business Lines, the Group Head of Safety, as well as a representative of the Engineering & Construction and Global Markets & Technologies World Business Units. Its purpose is to examine industrial risks and safety performance, as well as monitor the progress of the main improvement measures, in particular those relating to the greatest risks and/or cross-divisional measures. The Committee meets six to eight times a year and is chaired by a member of the Group’s Executive Committee.

The evolution of the safety performance of operations and their level of compliance with IMS requirements are regularly monitored by the Executive Committee as well as by the Environment and Society Committee.

3.2. RISKS RELATED TO WORKER SAFETY

3.2.1. Description of salient risks

Over and above the usual risks inherent in all industrial activities, Air Liquide's businesses entail more specific risks that may affect individuals. Industrial processes notably expose employees and subcontractors to the corresponding risks, which are described in paragraph 3.3. Road transport, a major activity for transporting products to customers, results in the exposure of drivers (employees or subcontractors) and third parties to the risk of road accidents described in paragraph 3.4.

In addition, industrial sites use numerous motorized lifting gear which present specific risks in connection with handling (collision, falling packages, etc.). Training and qualification are thus required to operate them.

3.2.2. Regular assessment procedures

Job Hazard Analysis ensures a safe workplace for all, with the implementation of prevention measures adapted to the configuration of the work environment and the needs of employees. Thus, each job was subject to risk analysis in accordance with the following steps:

- identification of risks related to the tasks to be performed;
- assessment of their severity and the probability of occurrence;
- identification of critical points; and finally,
- identification and implementation of prevention measures.

Work habits, poor postures, access routes, etc. are also taken into account in these analyses.

In the course of its activities, Air Liquide may use subcontractors. In this event, the Group ensures that the level of safety requirements and rigor applicable to subcontractors is equivalent to that expected of the Group's employees. To this end, the Group includes a description of its security requirements in the contracts it signs with subcontractors. New suppliers are subject to a technical assessment covering, in particular, safety and reliability issues.

3.2.3. Appropriate actions to mitigate risks and prevent severe impacts

Air Liquide relies on continuous actions to raise the awareness of its teams through specific training related to the knowledge and the mitigation of industrial risks that may affect individuals. Each employee working on an industrial site receives training and qualification courses specific to their job and is equipped with personal protective equipment allowing them to perform their tasks in the best conditions. Collective protective equipment is also installed in the various workshops, if necessary.

Safety is a collective commitment and everyone's responsibility. Since their creation in 2013, Air Liquide is committed to ensuring that its **Life-Saving Rules** are complied with at each site and at all times. Each individual working for Air Liquide, whether employee or subcontractor, is expected to know the rules, follow the rules and always intervene if there is a potential for unsafe behavior or conditions. The interpretation and meaning of each rule is widely shared within the Group and with subcontractors. The Safety and Industrial System Department provides entities with various communication, awareness-raising and training materials on Life-Saving Rules. Non-compliance with these rules is a serious act which may lead to appropriate disciplinary measures. The Life-Saving Rules are as follows:

1. I do not work under the influence of drugs and/or alcohol.
2. I do not smoke outside designated smoking areas.
3. I wear the Personal Protective Equipment required for the job.
4. I wear an ambient gas detector when required.
5. I never enter a confined space without authorization.
6. I work with a valid Safe Work Permit.
7. I apply isolation procedures before working on potentially energized systems.
8. I do not disable an Element Important for Safety (EIS) without authorization and compensatory measures.
9. I wear fall-prevention equipment when working at heights.
10. I do not walk under suspended loads.
11. I secure the load on vehicles.
12. I always wear a seat belt when I am in a moving vehicle.





IN EUROPE, AIR LIQUIDE ORGANIZES THE SAFETY AWARDS

The 12th European Safety Awards ceremony was held in November 2022. This 2022 edition was devoted to the theme “Care for others” and highlighted several initiatives rolled out by European entities to strengthen the safety culture among customers and patients, subcontractors and employees.

When the Group uses subcontractors as part of its activities, the contracts include safety clauses and the Group communicates to the subcontractors the safety values, standards and regulations in force that must be respected. Safety instructions are widely shared, understandable and detailed in the organization of work with subcontractors, who are supervised during the execution of services. Finally, Air Liquide assesses the safety performance of subcontractors once the task has been completed and encourages sharing in the form of feedback.



ENGINEERING & CONSTRUCTION LISTENS TO THE VOICE OF ITS CONTRACTORS IN CHINA

To better identify ways to improve subcontractor safety, the Engineering & Construction World Business Unit decided to listen to the “Voice of the front line contracted workers”. A questionnaire on key safety culture aspects has been designed and shared anonymously with more than 350 workers, from a sample of three construction sites in China, covering 75% of the front line population. This survey highlighted several key points of attention:

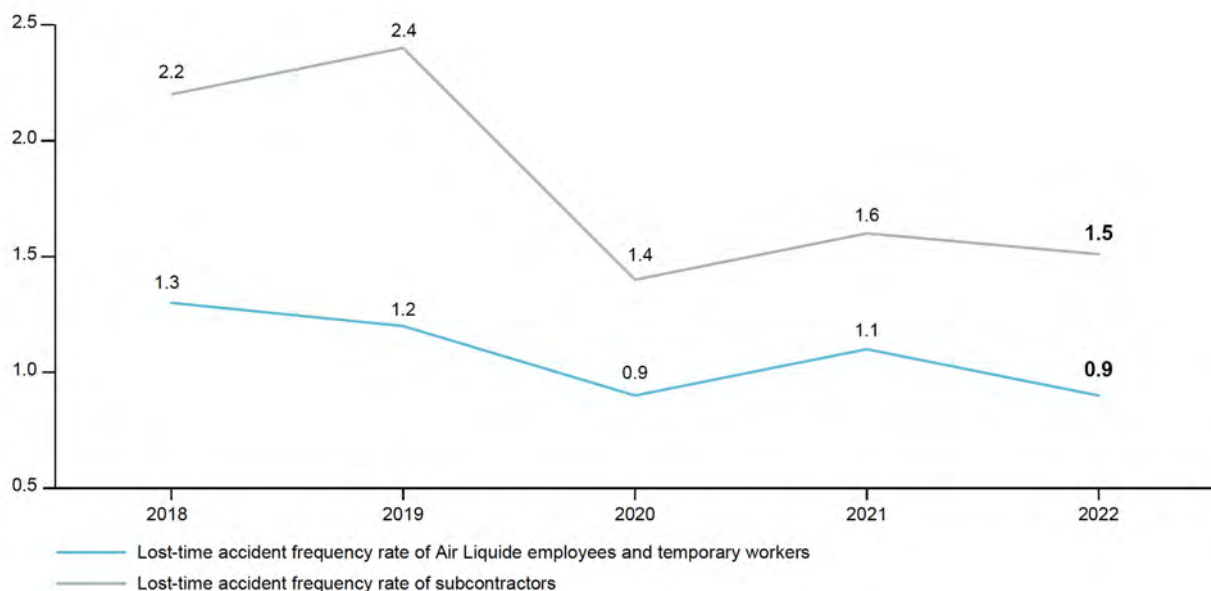
- The construction site environment and working conditions have a significant impact on the safety perception. These conditions can be anticipated from the initial phase of the project.
- Subcontractor field supervisors need to be role models, following the rules and valuing workers' contributions to safety.
- Workers focus on their own safety to the detriment of collective behavior.

To address these issues, E&C's safety training materials for subcontractors are being revised to better address behavioral aspects (collective/individual), as well as the safety roles and responsibilities of site front line managers. The survey will be extended to sites in Europe as well.

3.2.4. Monitoring scheme of measures implemented and the assessment of their effectiveness

The lost-time accident frequency rate is one of the safety performance review indicators. As illustrated in the chart below, this frequency rate has steadily improved over the years for Air Liquide employees and subcontractors.

LOST-TIME ACCIDENT FREQUENCY RATE OF AIR LIQUIDE EMPLOYEES AND SUBCONTRACTORS ^(a)



(a) Number of accidents with at least one day's absence per million hours worked.

The lost-time accident frequency rate of Air Liquide employees decreased to 0.9 at the end of 2022, compared to 1.1 at the end of 2021. Continued implementation of awareness-raising and prevention actions will further improve safety and significantly and sustainably reduce this lost-time accident frequency rate.

The Group has made and will continue to make every effort to analyze the accidents that have occurred in order to learn from them and thus prevent them from happening again. The evolution of this frequency rate highlights the steady progress in the maturity of teams on the subject of safety as well as the development of a safety culture within the Group.

With regard to subcontractors, over the long term, the lost-time accident frequency rate has improved. However, efforts still need to be made to reduce the number of accidents for subcontracted operators and drivers and thus achieve the same level of safety performance for subcontractors as for Air Liquide employees.

Air Liquide is aware that managing risks for subcontractors is a challenge: the subcontractor management process includes several phases involving different stakeholders and their “market profile” may create unfavorable conditions (e.g. a high driver turnover rate, a limited choice of subcontractors, a weak local safety culture). In order to improve the safety performance of its subcontractors, Air Liquide identified the main areas of work in 2020 (types of contracts, business lines, geographies, etc.) and best practices (internally and thanks to external benchmarks) and improvement actions are gradually being implemented (paragraph 3.2.3).

3.3. RISKS RELATED TO PROCESS SAFETY

3.3.1. Description of salient risks

Industrial risks must be factored in at the design phase of future installations. During the construction phase, the lack of a strict accident prevention framework would affect the coordination among the various stakeholders and expose teams to risks of accidents.

Based on the risk prevention work carried out by Air Liquide for many years, the salient risks related to industrial processes are:

- exposure to hazardous energy sources, fluids and emissions, such as electricity, pressure, steam, hot water, high or very low temperatures;
- fires resulting in particular from flammable products and materials or electrical installations; and
- exposure of people to dust and hazardous chemicals through inhalation, ingestion or skin contact.

3.3.2. Regular assessment procedures

Like all production (primary production and packaging), distribution and research activities, the Group and its subcontractors are exposed to risks related to process safety.

Risks related to process safety are analyzed using various methods, in particular the HAZOP (HAZard and OPerability analysis) methodology. A multidisciplinary team contributes to the comprehensiveness of the identification of credible scenarios that could lead to a critical situation, taking into account the unwanted events identified through the analyses of process and HSE (Health Safety Environment) risks. On this basis, each Group subsidiary is required to implement measures to prevent the risks identified at each of its industrial sites.

In addition to generic risks, each subsidiary, under the supervision of its Managing Director, regularly identifies specific risks related to its production and packaging activities. The objective is to identify the hazards globally and for each facility, in order to assess the risks and implement the necessary preventive measures.

3.3.3. Appropriate actions to mitigate risks and prevent severe impacts

Process safety is a complex issue as, although rare, incidents can lead to very serious consequences with multiple fatalities. In order to ensure that operations efficiently take this risk into account, Air Liquide has introduced specific action plans, the purpose of which is to control the most severe risks relating to industrial processes. They have been assigned the necessary resources (expertise and budgets) and follow a roadmap.

Management of industrial emergencies

In the event of an emergency, the primary responsibility of the entity's Managing Director is to analyze its nature, assess both the severity of the situation and the potential impacts on the basis of the risks previously identified, and take all necessary measures to ensure the safety of people. A 24/7 on-call system receives emergency calls and contacts the people responsible for setting up an appropriate response at local level.

A business continuity plan adapted to each entity describes the previously defined sequence of actions that will allow the continuation or restoration of operational functions, IT resources, networks and facilities in the event of an unexpected disruption to the service. The aim of this plan is to protect people and property and to limit the impact of the disruption on the entity's activities.

Exercises are regularly carried out on a variety of scenarios, and the results and lessons learned are documented, thus informing the business continuity plan.



To ensure the safety of industrial operations and neighboring communities, the Nanzih Industrial Technology Park (NTIP) in Kaohsiung, Taiwan Island, organizes an annual Emergency Response Drill in which the subsidiary Air Liquide Far Eastern (ALFE) participates. In 2022, the drill scenario chosen was the simulation of an earthquake causing toxic chemical substances leakage and fires in the area. 12 response units from government entities and companies combined their efforts at regional level to mitigate the consequences of the simulated natural disaster. During this exercise, ALFE successfully responded to this scenario of industrial gas leaks caused by a strong earthquake and also displayed the use of the ERCV (Emergency Response Containment Vessel), a special response equipment. This drill highlighted ALFE's expertise, which is based on a comprehensive incident reporting system, effective organizational capabilities and professional on-site handling. This demonstration enabled it not only to gain the trust of customers, but also to prove its sustainable operation capability in the NTIP.

3.3.4. Monitoring scheme of measures implemented and the assessment of their effectiveness

As with worker safety, the subsidiaries regularly report all events related to process safety in the Group's reporting tool. Each month, every event reported is reviewed by a team of industrial processes experts. The most serious events are analyzed in detail, presented to the Industrial and Safety Committee (paragraph 3.1), and lessons learned are shared with Group entities that could be potentially affected by similar situations.

Vigilance Plan

The progress of specific action plans aimed at bringing the most serious risks related to industrial processes under control is regularly monitored by the Group's Executive Management.

The industrial process risk management process is subject to regular audits by the Group's Industrial Audit Department.

3.4. RISKS RELATED TO ROAD SAFETY

3.4.1. Description of salient risks

Air Liquide delivers products to its customers and patients by road in 73 countries ⁽¹⁾. Each year, delivery vehicles, sales staff and technicians travel hundreds of millions of kilometers. Non-compliance with traffic regulations or the lack of regular maintenance of vehicles would expose drivers and third parties to increased risks of accidents.

3.4.2. Regular assessment procedures

Air Liquide relies on a structured program to mitigate risks on the road. This program was strengthened in 2020 by the update of the internal requirements standard. Operations are assessed and audited regularly to ensure compliance with this standard.

3.4.3. Appropriate actions to mitigate risks and prevent severe impacts

The road safety program is based on several mitigation and prevention actions, the main ones being:

- equipping vehicles with technologies to assist drivers, to warn them in the event of danger or to protect them in the event of an accident. This is a rapidly changing field and Air Liquide is committed to providing the best technologies possible to its own fleet of vehicles, as well as those of transport professionals working on its behalf. Around half of the vehicles are already equipped, and the aim is to reach 80% in the coming years;
- regularly raising awareness among professional and occasional drivers on safe behavior on the road;
- developing the role of master drivers (in driving and loading/unloading operations) who mentor new drivers and serve as role models within their organization. Identified on the basis of technical criteria, these master drivers actively contribute to forging the driver's safety mindset and participate in improving training and qualification processes.



IN THAILAND, AIR LIQUIDE OPERATES INFRARED DETECTION SYSTEMS AND ON-BOARD CAMERAS ON ITS TRUCKS

Since 2020, Air Liquide Thailand has been operating a detection system on its entire truck fleet using infrared recognition and on-board cameras to help drivers correct any lack of vigilance (fatigue, drowsiness). Safety performance on the road has improved significantly thanks to the detection but also the effective support of drivers, creating a climate of trust that encourages them to adopt the right behaviors and enables the subsidiary to improve its operating methods.



IN SOUTHERN AFRICA, AIR LIQUIDE DEVELOPS DRIVER TRAINING AND COACHING

Training and support for drivers is an essential element in achieving "zero accidents" ambition on the road. It is key for master drivers to adopt best driving practices and acquire the language to communicate them and influence other drivers to adopt them. In 2022, theoretical and practical training for master drivers, including through driving simulators, was rolled out in Southern Africa. This program will be extended to other master drivers in 2023.

3.4.4. Monitoring scheme of measures implemented and the assessment of their effectiveness

With regard to risks related to road safety, the year 2022 showed a deterioration in performance compared to the previous year.

In 2022, the Group faced the death of a subcontracted driver in a road accident. In addition, several accidents involving an Air Liquide vehicle, some of which could have been avoided, unfortunately resulted in the death of third parties.

The analysis of road accidents in recent years has highlighted certain recurring causes, such as fatigue or distraction while driving. For this reason, Air Liquide has launched some key initiatives to support changes in driver behavior and promote the use of digital driver-assistance technologies, which will gradually lead to improvements in road safety (paragraph 3.4.3).

ROAD SAFETY: FREQUENCY OF PREVENTABLE SERIOUS ACCIDENTS WITH INJURIES ^(a)



(a) Per million km driven by trucks of over 3.5 metric tonnes.

⁽¹⁾ Excluding Russia, where the entities are in the process of being divested. They are no more consolidated following the loss of control on September 1st, 2022.

3.5. RISKS RELATED TO PRODUCT SAFETY

3.5.1. Description of salient risks

The intrinsic properties of industrial and medical gases manufactured, transformed or packaged by the Group classify them in the hazardous materials category. Their use is safe provided that good practices and recommendations are complied with.

Beyond the risks inherent to the intrinsic properties of gases, other risks must also be considered, such as:

- the risk of faults in the systems supplying gas to customers, which could lead to a disruption to supply, in terms of quality or volumes, which could notably have an impact on a patient's health;
- the risk of possible failure to comply with specific standards and regulations, in particular in Healthcare, with the risk of non-compliance of products and services provided to patients.

3.5.2. Regular assessment procedures

The Industrial Management System (IMS) regulatory watch process in place in each Air Liquide Group subsidiary (paragraph 3.1) ensures product compliance with any regulatory changes applicable to them.

Likewise, the IMS procedure on the management of product development includes the analysis of associated risks, from the moment the products are designed, including the need for them to be used safely.

3.5.3. Appropriate actions to mitigate risks and prevent severe impacts

In compliance with regulations in force, each gas storage device is equipped with a label showing, among other things, the name of the product and the associated risks.

In the particular case of gas cylinders, the color of the shoulder is different depending on the main risk of the gas it contains. The safety data sheets present the risks of each of these gases. The cylinders are fitted with a cap protecting the valve which must be operated by hand and whose connections differ depending on the gas in order to avoid any incorrect connection. Their storage is regulated and must be done in a dedicated place.

3.5.4. Monitoring scheme of measures implemented and the assessment of their effectiveness

Air Liquide customers are invited to report to Air Liquide Customer Service any incidents related to the use of the Group's products.

In the context of Healthcare activities, specific processes such as pharmacovigilance (for products with drug status) and materiovigilance (for products with Medical Device status) are defined to ensure the reporting of incidents concerning these products from healthcare professionals or patients:

- the purpose of pharmacovigilance is to monitor, assess, prevent and manage the risk of adverse effects resulting from the use of drugs. The system set up within Air Liquide Santé International has global coverage and thus makes it possible to constantly monitor and assess the benefit/risk ratio of medical gases. As pharmacovigilance is a science that is highly regulated by the health authorities, Air Liquide Santé International also conducts a regulatory watch. This activity aims to identify and analyze the applicable texts (laws, best practices, etc.) in order to ensure these operations are conducted in compliance with the defined standards;
- the purpose of materiovigilance is to avoid the (re)occurrence of incidents and risks of serious incidents involving medical devices, by taking appropriate preventive and/or corrective measures. Air Liquide has specialized teams in its subsidiaries to analyze and deal with any event or risk of incident occurring during the use of medical devices or reported by manufacturers or health authorities. These specialists assess the risk and systematically inform the supplier and health authorities when necessary, while remaining in contact with the various stakeholders until the closure of the alert.

3.6. RISKS RELATED TO THE SECURITY OF INDIVIDUALS

The security of individuals is one of the Group's priorities. It embodies the Group's fundamental principle of responsibility. The security teams have a duty to relay this principle. This is an alignment with the Group's values that promote the overall integration of employees, and external stakeholders such as customers, suppliers and subcontractors, visitors, as well as neighboring communities or Shareholders.

3.6.1. Description of salient risks

In addition to endogenous risks, i.e. those generated by its own activity (occupational accidents, industrial accidents, etc.), the Group may also be faced with widespread exogenous risks (not generated by its own activity and which come from outside).

The exposure of employees and the external stakeholders mentioned above to these threats may take the form of verbal or physical assault, theft, or even minor or major crises (e.g. covid-19 pandemic, the military conflict between Russia and Ukraine). It is therefore essential for Air Liquide to properly identify these risks and threats, to analyze and understand them and to put in place security systems that protect employees, whether they are at their usual workplace or they are traveling to a high-risk country.

The generic mapping of risks related to the security of individuals is based on three types:

- political and security risk;
- risk related to terrorism;
- risk related to criminality.

Vigilance Plan

3.6.2. Regular assessment procedures

The Group is attentive to the geopolitical environment of the countries in which it operates. This is an important criterion in investment decisions. A good understanding of the environments in which the Group operates enables it to adopt a security posture in accordance with its requirements and its duty to protect.

The Group Security Department establishes a classification of security risks for the countries in which its employees work and travel. It is based in particular on the official rating of five countries (France, the United Kingdom, Canada, the United States and Australia), coupled with an assessment by the global security service provider for the Group. On a scale of four risk levels, it enables the Group to determine and implement the appropriate level of security measures corresponding to the level of threat identified. The occurrence of serious or repetitive events results in the review of a country's risk level. The country manager must approve the level of security risk determined for the country.

In 2022, for the countries in which Air Liquide is present, four are classified as very high risk (Ukraine, Nigeria, Mali and Burkina Faso) and 11 are high risk. The others are split between moderate and low risk.

In parallel with this classification, Air Liquide sets up a threat monitoring. The ability to collect, sort and analyze information makes it possible to understand the specific environments in which employees work by identifying threats and anticipating possible incidents, crises or changes in the structural or economic environment of the countries in which the Group operates. Where necessary, Air Liquide updates the security and travel rules to limit the exposure of its employees and adopts conservative security postures to protect those most exposed.

In certain unavoidable circumstances, employees may face illegal or criminal acts. It is important to detect, analyze and understand these in order to better protect employees and reduce the risk of occurrence.

In all its subsidiaries, the Group has security officers who are regularly trained to adopt the appropriate security posture and implement the security measures that protect employees.

3.6.3. Appropriate actions to mitigate risks and prevent severe impacts

Based on the risk assessment, the Group Security Department defines and coordinates the implementation of appropriate measures to limit employee exposure to potential negative impacts during a crisis or incident. It has a range of measures that can be deployed, depending on the level of risk identified, in all subsidiaries to protect employees and the external stakeholders listed above:

- active and passive security systems across all sites. The fundamentals of our site protection policy include secure fencing, a controlled access process, an adapted security and surveillance system, and finally, the means to intervene and respond in the event of an intrusion;
- security reviews are systematically carried out by the Security Officers to ensure the proper level of protection of employees and sites;
- crisis management and business continuity processes to deal with crisis environments and limit the impact on both employees and organizations;

- an analysis of the most serious incidents is carried out by the Group Security Department in collaboration with the local entities to adapt the security rules. Surveillance camera systems are set up to record the most critical points of a site and the recordings are viewed after the event in order to understand the origin of potential intrusions;
- a series of measures intended to protect people who are traveling, throughout their travel:
 - security awareness training for employees traveling to the most high-risk countries in order to inform them of potential threats and the measures to be applied,
 - all travel reservations to very high-risk or high-risk country are subject to a validation process by an employee's manager, then by the Security Officer of the geography in question, who may even prohibit the trip,
 - sending of alerts to travelers to make them aware of the most important incidents when they are away,
 - a dedicated application available to travelers to inform them of imminent threats and thus be rescued as quickly as possible;
- e-learning training in collaboration with Human Resources to familiarize employees with new environments. Socio-cultural differences are important elements of integration that must be understood and assimilated and which allow for better multicultural integration.

In very high-risk countries, these security measures will be strengthened.

More generally and as part of a responsible approach, the Group interacts with some of the most disadvantaged surrounding communities by implementing actions to benefit them. In some townships, such as in Brazil or South Africa, local jobs are offered to integrate these communities and reduce the risk of malicious acts, while promoting their integration.

The security function at Air Liquide is fundamentally part of a logic of goodwill through its positioning of anticipation, prevention and protection. The Group Security Department acts as a player aware of the duty of vigilance and respect for the Group's values in its day-to-day work.

3.6.4. Monitoring scheme of measures implemented and the assessment of their effectiveness

The Group has an incident reporting system which, depending on the level of severity, triggers a review process for these incidents. In a singular way, this system makes it possible to understand the origin of malicious acts and to act locally on the security rules in place to protect employees and third parties.

A security review system enables assessment of the level of protection of a subsidiary in terms of security according to the level of threat in a country and its sensitivity level. This classification makes it possible to assess whether the security systems are properly deployed in the subsidiaries in order to guarantee the appropriate level of protection for employees and subcontractors.

These systems are monitored by the Regional Security Officers and the Group Security Director. They make it possible to adapt the security posture according to specific events or crises.

4. Environment

The Group Sustainable Development Department, under the direct supervision of an Executive Vice President, defines the Group's strategy on environmental issues. It ensures the roll-out of the latter and the definition and monitoring of the associated key performance indicators. It is also responsible for internal and external sustainable development communication in order to highlight the Group's achievements, as well as regulatory communication for extra-financial information.

In addition to the Group's global Sustainable Development approach, employees have volunteered to implement local initiatives within their entities. Known as the "Sustainability Ambassadors" ⁽¹⁾, the 600 members present in the Group's various geographies contribute to raising employee awareness, finding solutions to protect the environment and sharing best practices.

4.1. RISKS RELATED TO CLIMATE



4.1.1. Description of salient risks

In order to address climate change, Air Liquide takes into account the recommendations of the Intergovernmental Panel on Climate Change (IPCC), as expressed in assessment reports and special reports. The Group intends to play an active role in achieving the targets set out in the Paris Agreement, which defines a global framework to avoid dangerous climate change by limiting global warming to well below 2°C above pre-industrial levels, and pursuing efforts to limit it to 1.5°C. The IPCC Special Report "Global Warming of 1.5°C" published in 2018 indicates that achieving the Paris Agreement's objective of keeping the average temperature rise below 1.5°C requires reaching carbon neutrality, on a global scale, by 2050.

In this context, as a responsible company, Air Liquide recognizes the importance and urgency of addressing climate issues. Based on these scientific facts, Air Liquide intends to contribute to carbon neutrality by addressing the entire value chain, therefore covering direct greenhouse gas emissions (Scope 1), indirect emissions linked to electricity and steam procurement (Scope 2) as well as the main indirect emission categories of Scope 3.

The greenhouse gas emissions associated with its activities and exceptional weather-related phenomena due to climate change can impact the environment and people.

Climate risks related to Greenhouse Gas (GHG) emissions

These risks can have the following consequences on people and the environment:

- new competencies may be required of employees in order to maintain their employability, in particular given the implementation of new technologies and the development of new markets;
- the massive development of renewable energies used to reduce GHG emissions may have an impact on local communities;
- due to their consequences on global warming, GHG emissions may have an impact on the environment, in particular on water resources or crop yields.

Climate risks related to the physical impact

Air Liquide operates in certain regions of the world exposed to changes (in amplitude and/or frequency) in exceptional meteorological phenomena due to climate change. These phenomena can have a negative impact on people, which can be broken down into:

- acute risks triggered by events such as natural disasters (storms, hurricanes, floods, etc.), whose frequency and severity are increasing, and which could endanger employees or neighboring communities when sites are damaged, particularly those located near the coast or in areas that may be affected by hurricanes (the Gulf Coast, North America, South Asia, etc.);
- chronic risks related to longer-term changes in climate models and rising temperatures that could lead to a deterioration in the working conditions of employees in certain geographies (chronic heat waves in certain regions, changes in rainfall patterns and increase in their variability, etc.).

4.1.2. Regular assessment procedures

Climate risks related to Greenhouse Gas (GHG) emissions

The data relating to GHG emissions reported by the entities are consolidated using a centralization tool at Group level to determine Air Liquide's quarterly and annual carbon footprint.

⁽¹⁾ Previously known as "Climate Ambassadors", these employees have been renamed "Sustainability Ambassadors" to reflect the extension of their role to cover all aspects of sustainable development.

SCOPES OF GREENHOUSE GAS EMISSIONS FOR AIR LIQUIDE

The Greenhouse Gas (GHG) emissions that constitute a company's carbon footprint are categorised according to three perimeters, called "scopes", depending on the origin of the emissions. Air Liquide follows this classification for the management of its carbon footprint.

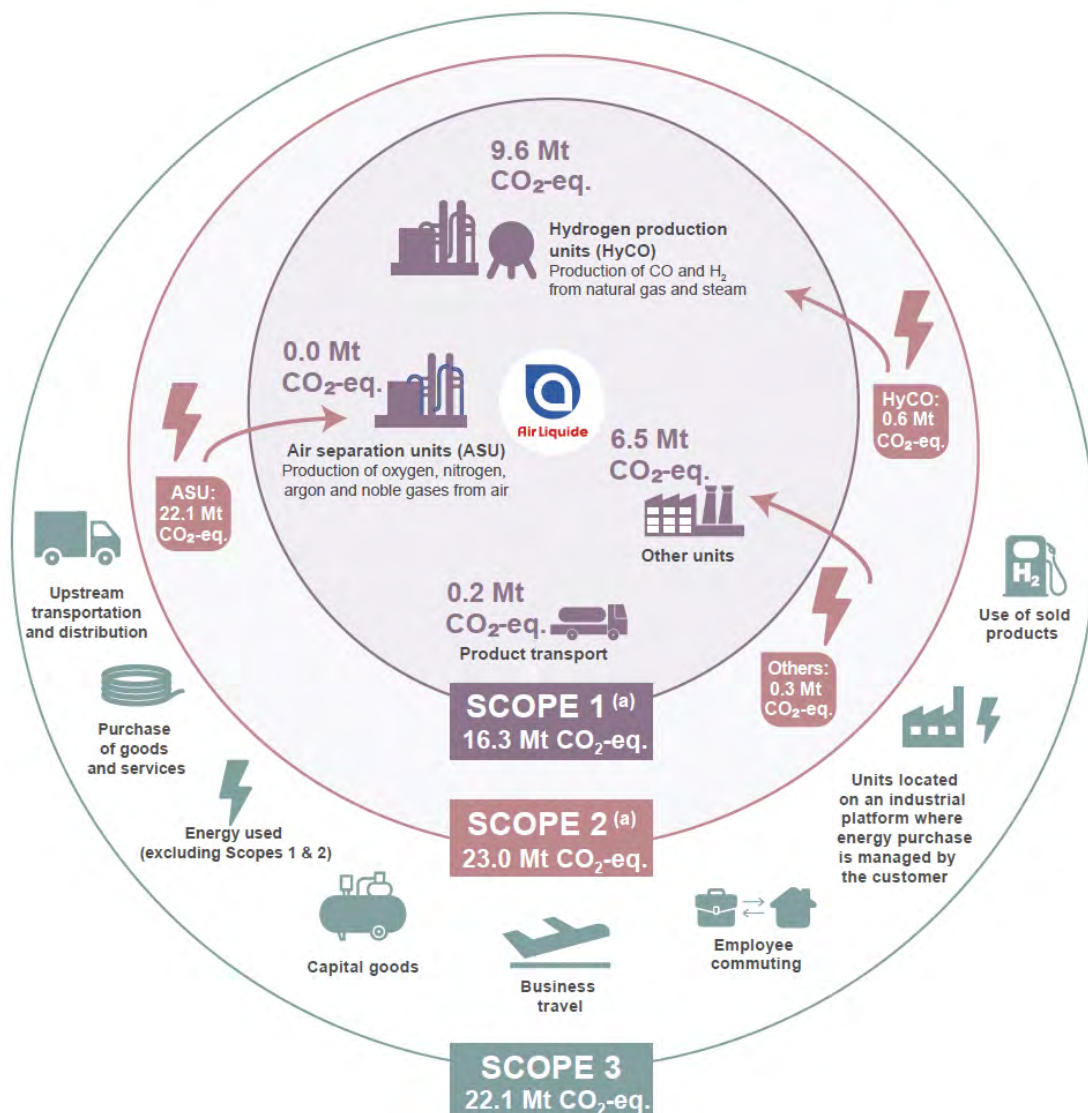
Air Liquide's GHG emissions balance sheet takes into account the 6 greenhouse gases highlighted by the Kyoto Protocol and is carried out in accordance with the GHG Protocol's carbon accounting method proposed by the World Resource Institute and the World Business Council for Sustainable Development.



SCOPE 1 Direct emissions generated by all emission sources owned or controlled by Air Liquide.

SCOPE 2 Indirect emissions related to the production of electricity or steam purchased outside the Group.

SCOPE 3 Other indirect emissions related to the life cycle of products sold by Air Liquide.



The data presented have been rounded up to the tenth.

(a) Reported emissions in millions of tonnes of CO₂-equivalent using the "market-based" methodology (see methodology for calculating scopes in paragraph 4.1.2 of the Vigilance Plan, page 117).

Scope 1

Air Liquide's direct greenhouse gas (GHG) emissions are mainly carbon dioxide and nitrous oxide emissions, all expressed in metric tonnes of CO₂-equivalent. Hydrogen production and co-generation of steam and electricity account for nearly 15% of large production units and use combustion processes emitting CO₂. Scope 1 emissions correspond to the difference in carbon content between the natural gas consumed by these units and the carbon content of their products. Air Liquide also records direct emissions from the combustion of fuel in its truck fleet. Reporting takes into account a minimum of 95% of the Group's Scope 1 emissions. Reporting is subject to a continuous improvement process.

Scope 2

Almost 85% of Air Liquide's large production units are Air Separation Units, which do not use any combustion processes, hence do not generate any direct greenhouse gas emissions and consume almost exclusively electrical energy. Electricity used by the Group to power these units generates greenhouse gas emissions at electricity suppliers. Scope 2 totals the indirect GHG emissions generated by the production of electricity and steam purchased outside the Group. These emissions are related to the production of electricity and steam in the various countries where it operates. Reporting takes into account a minimum of 95% of the Group's Scope 2 emissions. The methodology and reporting of the sources of indirect emissions linked to electricity and steam purchases from third parties are subject to a continuous improvement process; in 2021, the Group adopted a "market-based" reporting for its Scope 2.

Air Liquide has improved the way in which indirect emissions from electricity and steam purchases are recorded, moving from a location-based approach based on the average emission factors of the national network, to a much more precise and specific approach, directly related to supply contracts, called a "market-based" method. By using this method, the Group is adopting the Scope 2 emissions accounting method recommended by the GHG Protocol⁽²⁾. From now on, Air Liquide's initiatives in terms of electricity procurement, in particular the voluntary procurement of renewable electricity, are directly reflected in the reported Scope 2 emissions figures.

Scope 3

The Group reports other indirect GHG emissions under Scope 3 (categories 1, 2, 3, 4, 6, 7, 11 and 13 of the GHG Protocol⁽³⁾) which concern the Gas & Services businesses. The categories not reported represent emissions that are not applicable in Air Liquide's business model (8 and 14), or negligible (5, 9, 12 and 15), or for which the methodology and reporting are in the process of being developed (10).

Assessing employee competencies to maintain employability

In response to the climate risks related to greenhouse gas emissions, and the emerging need for employees to have additional competencies to maintain their employability, the assessment focused on the most exposed activities, which are in Engineering & Construction (E&C) and Large Industries:

- within E&C, the engineering and product line teams are those facing the greatest changes in competencies. They involve

emerging disciplines (electrolysis) or expertise that needs to be strengthened to meet the challenges of energy transition (CO₂ capture and liquefaction, hydrogen liquefaction). These new businesses, combined with the current growth in activity for E&C, represent opportunities for employees positioned in less buoyant business segments.

E&C renewed its "SPRING" technical competencies assessment exercise in 2022. It consists in assessing the skills of employees in the technical fields, put into perspective with the needs identified to support E&C's projected activity, in particular with the development of technologies supporting the Group's energy transition strategy. The assessment in 2022 focused more specifically on the Electrolysis product line and execution skills (engineering and site activities). Following this SPRING assessment campaign, E&C determined action plans by area of expertise and by operations center to meet the development needs of key competencies;

- three Large Industries professions are particularly exposed to a substantial change in their competencies:
 - production and maintenance teams on sites, impacted by the digitization and automation of industrial processes and by the setting up of Smart and Innovative Operations (SIO) centers in charge of remote control of production sites,
 - sales teams affected by the challenges of the energy transition, which are reflected in the development of the Group's offerings,
 - moreover, for the teams in charge of energy management, a 2021-2023 plan has been drawn up to support the development of competencies in a context of increased purchases of renewable energy. The first two steps were carried out: (i) competency mapping in six key areas of competencies; (ii) identification of competency development and reinforcement needs in each geography.

Climate risks related to the physical impact

Climate risks related to the physical impact (water availability, frequency of extreme events, etc.) are assessed during the review of investment requests, in the same way as financial criteria, to ensure that the associated risk management measures are adapted, for example, in the design of equipment.

These risks are already taken into account, especially in (i) the Water Management Policy (paragraph 4.2.3), which addresses, among other things, water-related risks for production units for which this risk is proven, and (ii) Business Continuity Plans that ensure the resilience of operations in the event of disruption, including extreme climatic events.

In 2022, Air Liquide launched an initiative to consolidate and further improve the risk management process for climate risks related to the physical impact. The objective is to consolidate and structure a procedure for the Group in 2023, to be deployed in 2024. With the implementation of this procedure, Air Liquide will:

- identify the perils linked to the physical impacts of climate change, according to one or more scenarios with high CO₂ emissions;
- evaluate the importance of these risks for the Group's activities;
- develop, if necessary, adaptation plans.

⁽²⁾ The Greenhouse Gas Protocol (the organization responsible for developing international standards for calculating carbon footprint, also known as the GHG Protocol) is the most widely used international accounting framework for understanding, quantifying and managing greenhouse gas emissions.

⁽³⁾ The definition of the different Scope 3 categories by the Greenhouse Gas Protocol is available here: <https://ghgprotocol.org/scope-3-technical-calculation-guidance>

Vigilance Plan

In 2022, Air Liquide carried out a scoping phase, during a workshop gathering experts from various technical areas and several geographies to identify material climate change-related risks. In parallel, a first assessment of available climate modeling tools has been conducted.

For this first step, the Group also relied on the work performed in 2021. A group of internal experts, in collaboration with external stakeholders, analyzed risks triggered by climate change based on the work of the Intergovernmental Panel on Climate Change (IPCC). This analysis focused on specific assets to strengthen the understanding of key parameters.

4.1.3. Appropriate actions to mitigate risks and prevent severe impacts

Climate policy and procedures

A Climate Policy was published in the BlueBook ⁽⁴⁾ in 2022 to consolidate the principles governing the Group's climate risk management, covering the entire value chain.

The monitoring and achievement of the Group's climate objectives are based on:

- the internal greenhouse gas emission monitoring procedure, which sets out the monitoring of current greenhouse gas emission regulatory obligations with which the Group must comply, the methodology for calculating Scopes 1 and 2 emissions, as well as the reporting scope and frequency;
- integration of the monitoring of the CO₂ trajectory in the Group's management process, in particular the budget process, which now includes the allocation of a carbon budget to the various geographies, as well as quarterly monitoring per geography and per business line at the Executive Committee level;
- a review of investment decisions, taking climate factors into consideration, in particular a CO₂ price, along with an analysis of the risks and opportunities related to the climate transition. For all its projects, for all geographies, even those without a current official price for CO₂, Air Liquide integrates a CO₂ price sensitivity study into its investment decision process. Different values are used, including a baseline price of 50 euros per

metric tonne of CO₂, the current local price, as well as a high value of at least 100 euros per metric tonne depending on the geography and the context;

- the roll-out of the Climate Champions network and the regular review of the clusters' (group of countries) decarbonization plans. The Climate Champions, contact points of the Sustainable Development Department, are responsible for managing the Group's CO₂ emissions reduction objectives in the various clusters (group of countries). They coordinate the development of a roadmap that defines all the operational measures required to achieve the objectives below. They are responsible for monitoring the indicators, the roll-out of projects and reporting on progress.
- the assumption of the implementation, in the geographies in which the Group operates, of public policies aimed at stepping up the transition toward a low-carbon economy that are in line with a "well below 2°C" trajectory.

The potential impact on local communities due to the massive development of renewable energies (paragraph 4.1.1) is reviewed on a case by case and ad hoc bases, depending on sources and contractual structures of renewable energy sourcing. As Air Liquide scales its sourcing of renewable energy, the process will be further embedded in the relevant sourcing guidelines, in particular when sourcing from new built assets.

Group's Climate Objectives

As part of the sustainability objectives announced in 2021 and the new strategic plan ADVANCE for the 2022-2025 period, announced in March 2022, Air Liquide's ambition is to act for a low-carbon society. This approach integrates the Group's activities through three complementary axes:

- taking action on assets by committing to reduce the carbon impact of production, distribution and service activities;
- taking action with customers by innovating for a cleaner industry;
- taking action for ecosystems by contributing to the emergence of a low-carbon society.

ASSETS: REDUCING THE CARBON IMPACT OF ITS PRODUCTION, DISTRIBUTION AND SERVICE ACTIVITIES

CLIMATE OBJECTIVES: SCOPES 1 AND 2 EMISSIONS

In line with the Paris Agreement, and to address the urgency of taking climate change and the energy transition into account, Air Liquide sets itself the ambition to achieve **carbon neutrality by 2050**, with two major intermediate milestones:

- the start of reduction of absolute CO₂ emissions ⁽⁵⁾ around 2025;
- a -33% reduction in its Scope 1 and 2 CO₂ emissions by 2035, compared to the 2020 baseline ⁽⁶⁾.

The Science Based Targets initiative (SBTi) validated Air Liquide's target to reduce its Scope 1 & 2 emissions by 2035 in May 2022 as compliant with a well below 2°C trajectory ⁽⁷⁾. The Group was the first in its industry to obtain validation from the SBTi.

Furthermore, the Group also maintains its existing objective, announced in 2018, to reduce by -30% its carbon intensity ⁽⁸⁾ by 2025, on the basis of 2015 emissions.

⁽⁴⁾ The BlueBook is Air Liquide's Global Reference Manual, which gathers the Group's codes, policies and procedures and forms the basis for the Group's internal control and risk management system.

⁽⁵⁾ CO₂ emissions must be understood as greenhouse gas emissions converted in CO₂-equivalent.

⁽⁶⁾ In tonnes of CO₂-equivalent for Scopes 1 and 2, using the "market-based" methodology (see methodology for calculating scopes in paragraph 4.1.2 of the Vigilance Plan, page 117), restated, from 2020 and each subsequent year, to include the emissions of the assets for the full year, taking into account (upwards and downwards) changes in scope having a significant impact on CO₂ emissions.

⁽⁷⁾ Air Liquide announced its greenhouse gas emission reduction targets for Scopes 1 and 2 in March 2021 on a 2020 baseline. Following the acquisition of the Sasol Air Separation Units in South Africa on June 24, 2021, Air Liquide submitted to SBTi a -35% target by 2035 on a 2021 baseline in order to integrate this significant change in scope and the full deployment of "market-based" reporting.

⁽⁸⁾ In kg CO₂-equivalent/euro of Operating income recurring before depreciation and amortization and excluding IFRS 16 at 2015 exchange rates for Scopes 1 and 2 of greenhouse gas emissions using the "market-based" methodology (see methodology for calculating scopes in paragraph 4.1.2 of the Vigilance Plan, page 117, and the reconciliation in paragraph Performance indicators of chapter 1, page 61).

To achieve these objectives, the Group has notably identified three key levers to reduce the carbon footprint of its assets, detailed below. These levers are based on the Group's technological and operational expertise, as well as on the implementation of public policies and regulatory frameworks allowing in particular the rapid and massive development of decarbonized energies, which determine the speed at which they can be mobilized.

Lever 1: sourcing low-carbon energy.

Air Liquide's ambition to achieving carbon neutrality associated with its assets is usually supported by the sourcing of low-carbon electricity to power the Air Separation Units. Hydrogen production units can be adapted to operate on renewable natural gas.

To reduce its indirect emissions related to energy purchases (Scope 2 emissions), Air Liquide adopts a proactive approach to purchase renewable and low-carbon electricity using several approaches depending on local conditions allowing access to renewable energy. The main one is the conclusion of long-term Power Purchase Agreements (PPA). The share of renewable electricity should increase in the coming years as new PPA are expected to be signed regularly.

Nevertheless, the Group may rely on the purchase of certificates such as Guarantees of Origin that may or may not be bundled with power delivery especially when integration of a PPA into the sourcing portfolio is difficult or, on "green tariffs" in areas supplied by regulated utilities.



2022 ILLUSTRATIONS

In 2022, Air Liquide notably signed the following contracts:

- its biggest long-term Power Purchase Agreement (PPA) to date with approximately 115 MW of new offshore wind electricity, for 15 years starting in 2025, purchased to Vattenfall in the Netherlands. This PPA comes in addition to a previous agreement announced with Vattenfall in March 2021. Over the contract duration, this will avoid the emission of up to 3.5 million tonnes of CO₂;
- a 10-year contract with Shell Energy Europe Limited (SEEL) for the purchase of renewable energy to power industrial and medical gas production operations in the North East of Italy. From 2023, and for 10 years, Air Liquide will purchase 52 GWh per year of solar photovoltaic renewable energy. This agreement will result in around 24,000 tonnes of CO₂ emissions being saved a year;
- two PPA with Enel Green Power for the long-term supply of a total capacity of 220 MW of renewable power to the Secunda sites of Air Liquide and Sasol, in South Africa. These two wind projects will significantly contribute to the decarbonization of the Secunda site. This agreement is subject to regulatory and financial approvals.

Lever 2: improving the efficiency of assets.

Air Liquide constantly improves the design of its production units and modernizes them thanks to the innovation efforts of Research & Development and Engineering & Construction teams in order to improve their energy efficiency and reduce their energy consumption. The Group continues to roll out the Smart Innovative Operations (SIO) program which optimizes energy consumption and procurement through centralized operation centers.

Air Liquide uses a large fleet of trucks for the supply of industrial gases to its customers. These vehicles contribute to the Group's greenhouse gas emissions. Air Liquide therefore takes targeted actions to reduce logistics-related emissions by leveraging digital resources to optimize deliveries, and by progressively converting its fleet to alternate fuels.



2022 ILLUSTRATIONS

Two major semiconductor market leaders have awarded Air Liquide long-term contracts for the supply of ultra-high purity industrial gases in Japan. Air Liquide will build, own and operate production plants. Compared to previous generation units, the four energy efficient plants will enable the Group to avoid the emission of an estimated 35,000 tonnes of CO₂ per year.

Airgas, an Air Liquide company, has signed an agreement with Hyzon Motors, a global supplier of zero-emissions hydrogen fuel cell powered commercial vehicles, to pilot two heavy duty hydrogen fuel cell trucks, including one 100 kW fuel cell truck and the first Hyzon 200 kW hydrogen fuel cell powered truck to be tested commercially. These two trucks will be the first heavy duty hydrogen fuel cell powered trucks within the Air Liquide Group globally and are slated to be tested in various cylinder delivery routes in the Los Angeles, California area.

Lever 3: rolling-out innovative technologies.

Air Liquide has developed a portfolio of proprietary technologies such as Cryocap™, which allow CO₂ to be captured and reused or stored on Steam Methane Reformer (SMR) units for the production of hydrogen. Capture for CO₂ valorization and storage is thus set to play a major role in reducing direct emissions from hydrogen production.

Air Liquide is committed to producing low-carbon hydrogen on an industrial scale and in a sustainable manner. The electrolysis of water is one of the key solutions to produce hydrogen with a minimal carbon footprint, when powered by low-carbon electricity. The installation of electrolyzer units therefore plays a critical role to enable the production of low-carbon hydrogen on a large scale for industry and mobility.

**2022 ILLUSTRATIONS**

Air Liquide will build two new hydrogen production units with carbon capture technology in Shanghai Chemical Industry Park. These units are designed to replace current supply from a third party coal-based gasification unit. They will also be equipped with CO₂ capture and recycle technology. This project will avoid the emission of 350,000 tonnes of CO₂ per year. These units will produce hydrogen and carbon monoxide for the supply to Covestro China and Shanghai Lianheng Isocyanate Company in the Park.

Air Liquide received support from the French State to launch its Air Liquide Normand'Hy large scale renewable hydrogen production project. This electrolyzer of an initial 200 MW capacity will use Siemens Energy's Proton Exchange Membrane (PEM) technology. Air Liquide has signed a Memorandum of Understanding with TotalEnergies aiming at the signing of a long term Power Purchase Agreement (PPA) for part of the needs of the Air Liquide Normand'Hy electrolyzer. The latter should notably provide renewable hydrogen to TotalEnergies' Normandy refinery and to industrial companies of the Normandy basin.

Air Liquide and Siemens Energy announced the creation of a joint venture dedicated to the series production of industrial scale renewable hydrogen electrolyzers in Europe. The factory will supply electrolysis modules ("stacks") to both Groups for their respective broad range of customers and to serve the rapidly growing market. Based on proton exchange membrane (PEM) electrolysis technology, these stacks will feature a high degree of efficiency and are ideally suited to harvest volatile renewable energy.

CUSTOMERS: INNOVATING WITH CUSTOMERS FOR A CLEANER INDUSTRY

Air Liquide also continues to provide its customers with low-carbon solutions to help them reduce their carbon footprint. Drawing on its technological expertise and its capacity for innovation, the Group offers them cleaner and more sustainable solutions to reduce their CO₂ emissions.

SCOPE 3 COMMITMENT

Aware of the importance of contributing to the achievement of carbon neutrality throughout its value chain, in 2022, Air Liquide worked on developing its Scope 3 greenhouse gas emissions reduction strategy. The importance of the relationship with its customers has led the Group to pledge to have 75% of its 50 largest customers committed to carbon neutrality by 2025 and 100% by 2035.

To achieve this ambition, the following levers have been identified:

Lever 1: reducing Air Liquide products' carbon footprint.

Air Liquide relies on its expertise to offer its customers innovative solutions to support them by outsourcing their needs to pool production assets and thus aim for greater energy efficiency. Air Liquide proposes to install units directly on its customers' sites in order to save on transportation or to provide a new generation of lighter cylinders, and thus reduce transport-related CO₂ emissions.

**2022 ILLUSTRATION**

Air Liquide will invest in a new Air Separation Unit (ASU) dedicated to Industrial Merchant activities in Kosi, in the state of Uttar Pradesh, Northern India, which is planned to start operating by the end of 2023. This plant has been designed to contribute to a successful energy transition by India. The new unit is indeed planned to fully operate on renewable energy by 2030 to accompany the development of India and its growing demand for sustainable solutions.

Lever 2: co-developing innovative processes with customers.

Air Liquide supports its customers in the fundamental and essential transformation of their industrial processes, in particular in industrial sectors such as metallurgy and chemicals. The Group provides technical innovations to reduce the CO₂ emissions associated with the conventional processes used in these sectors by employing new production processes, such as oxy-combustion for cement coupled with CO₂ capture, direct reduced iron (DRI unit) combined with submerged arc furnace for steel production, or new uses of materials such as hydrogen.

**2022 ILLUSTRATIONS**

Air Liquide and EQIOM are joining forces in a project named "K6" with the aim to transform EQIOM's Lumbres plant, in Northern France, into one of the first carbon-neutral cement plants in Europe. Air Liquide will support this initiative by supplying oxygen to EQIOM's production process and by leveraging its proprietary technology Cryocap™ Oxy to capture and liquefy the CO₂ emissions. The project aims to capture around 8 million tonnes of CO₂ over the first ten years of operation.

Air Liquide and TotalEnergies are innovating, in the context of the conversion to a biorefinery of the TotalEnergies' Grandpuits site, to produce and valorize renewable and low-carbon hydrogen. Air Liquide will build and operate at the Grandpuits site a new hydrogen production unit with an annual capacity of more than 20,000 tonnes. By recycling, in part, residual biogases from Grandpuits' biorefinery as a substitute for the natural gas traditionally used, the hydrogen produced by this unit will be partly renewable. In addition, this unit will include, from its start-up, an Air Liquide Cryocap™ H₂ carbon capture unit. This will enable to capture, for reuse in agri-food and industrial applications, over 110,000 tonnes of CO₂ per year contributing to reducing the site's carbon footprint. These innovations will prevent emissions amounting to 150,000 tonnes of CO₂ a year compared to current processes.

Lever 3: developing innovative carbon capture technologies.

Air Liquide's presence in major industrial basins, combined with its expertise in carbon capture and liquefaction technologies allows the Group to contribute to major global initiatives aimed at aggregating large streams of CO₂ in order to capture them for valorization and storage.

**2022 ILLUSTRATIONS**

Air Liquide and Lhoist have signed a Memorandum of Understanding (MoU) with the aim to decarbonize Lhoist's lime production plant in Northern France, using Air Liquide's innovative and proprietary Cryocap™ carbon capture technology. Air Liquide would build and operate a unit of its innovative and proprietary Cryocap™ FG (Flue Gas) technology to capture and purify 95% of the CO₂ arising from Lhoist's existing lime production unit. Thanks to this project, Lhoist would be able to reduce the CO₂ emissions of the plant by more than 600,000 tonnes per year starting in 2028. Air Liquide's Cryocap™ technology would thus be used for the first time to decarbonize lime production in France.

Air Liquide and Eni have entered into a collaboration agreement aimed at assessing decarbonization solutions in the Mediterranean region of Europe, focused on hard-to-abate industrial sectors. The two companies join forces combining their well-established expertise and know-how to enable CO₂ capture, aggregation, transport and permanent storage. Air Liquide will develop competitive CO₂ abatement solutions, leveraging on its ongoing Carbon Capture and Sequestration (CCS) in Northern Europe and on its innovative proprietary technology Cryocap™ able to capture up to 95% of CO₂ emissions from industrial facilities.

ECOSYSTEMS: CONTRIBUTING TO THE EMERGENCE OF A LOW-CARBON SOCIETY

Air Liquide contributes to the development of a low-carbon society. To this end, the Group develops hydrogen and biomethane for industrial and mobility applications. These developments are expected to play a key role in the fight against climate change. The Group has therefore identified the following levers:

Lever 1: promoting hydrogen (H₂) for energy transition.

Hydrogen is an essential solution for the energy transition. A competitive and low-carbon solution, it represents tremendous development potential thanks to its many applications in industry, energy and mobility. Deeply convinced that hydrogen will play a major role in the energy transition, the Group intends to be a key player in the emergence of a hydrogen society thanks to its assets, its technologies and its expertise. Air Liquide is in particular one of the founding members of the Hydrogen Council, a unique global initiative that brings together nearly 150 companies in 2022 and aims to define a common ambition for hydrogen as an accelerator for the energy transition. Around 8 billion euros will be invested by the Group in the low-carbon hydrogen value chain by 2035. Hydrogen sales are expected to triple to 6 billion euros by 2035.

**2022 ILLUSTRATION**

Air Liquide joins forces with Lotte, one of the largest groups in South Korea, to co-invest in a new generation of large scale hydrogen filling centers in South Korea. The first two units will be strategically located in the industrial basins of Dasean and Ulsan to notably serve the densely populated regions of Seoul metropolitan area. Air Liquide will bring its expertise in design, manufacturing and operation of key hydrogen technologies, including for hydrogen conditioning and distribution, and hydrogen refueling stations.

Lever 2: contributing to the development of clean mobility.

Air Liquide is investing in the production of low-carbon hydrogen from the electrolysis of water, as well as in H₂ mobility distribution networks. The Group is also developing the biomethane chain from production to filling stations.

**2022 ILLUSTRATIONS**

Air Liquide, CaetanoBus and Toyota Motor Europe have signed a Memorandum of Understanding with the aim of developing integrated hydrogen solutions. This will include infrastructure development and vehicle fleets, to accelerate the expansion of hydrogen mobility for both light and heavy-duty vehicles. The three companies will use their complementary expertise to address the entire value chain of hydrogen mobility, ranging from renewable or low-carbon hydrogen production, distribution and refueling infrastructure to the deployment of different vehicle segments.

Air Liquide invested and operates its first biomethane production unit in China since the end of 2022. This new unit will produce biogas from agricultural and livestock waste coming from local farms and purify it into biomethane. With a total production capacity of 75 GWh per year, the unit will inject the biomethane into the city gas grid to be used for household consumption and also generate electricity for its own consumption and injection into the electrical grid.

Lever 3: contributing to the circular economy through the development and diversification of biomethane.

Air Liquide is a committed stakeholder across the entire biomethane value chain for sustainable transportation and for the development of the circular economy, from biogas supply and purification for the production of biomethane (which can be directly injected into the gas network), to distribution to the final customers. In 2022, Air Liquide has 22 biomethane production units worldwide for a yearly production capacity of 1.6 TWh.

**2022 ILLUSTRATION**

Air Liquide inaugurated its first biomethane production unit in Italy with its local partner Dentro il Sole (DIS). Located in Truccazzano, near Milan, the unit contributes to the decarbonization of the transport sector by valorizing agricultural and livestock waste from local farms to produce liquefied biomethane.

Employee engagement and training**INTRODUCING REUSABLE PLASTIC CAPS ON GAS CYLINDERS**

In Austria, a system of reusable plastic caps has been implemented by a "Sustainability Ambassador" on gas cylinders to limit the use of plastic and its inadvertent dispersion by customers into nature. With the support of the Ambassador's management, the use of reusable caps was successfully tested for one year, which led to a reduction in environmental impact as well as savings in handling time and procurement. The concept has been extended to other cylinder types in Austria and could be deployed more widely in the Group.

In order to train employees on the sustainability objectives announced by the Group in March 2021, modules have been created by Air Liquide University on the themes of energy transition, innovation and circular economy. The Group has set up

a training course on the energy transition, including webinars on the causes and consequences of climate change and on Air Liquide's decarbonization strategy. The training sessions are open to all employees. They can also access the recordings available on the Air Liquide University digital platform. Specific training courses were introduced for operational teams to inform employees of the Group's sustainability objectives and their operational rollout.

**AIR LIQUIDE STRENGTHENS ITS TRAINING PROGRAM ON CLIMATE AND ENERGY TRANSITION**

In 2022, Air Liquide University included a one-and-a-half-hour webinar on climate change, led by a Sustainability Ambassador, who took the initiative to organize regular awareness-raising sessions in his department. On a voluntary basis, Group employees were able to register for this interactive webinar detailing in a simplified and educational way the science behind climate change, as well as the main findings of the IPCC report. Around 350 employees benefited from this training.

In response to the climate risks related to greenhouse gas emissions, and the emerging need for employees to have additional competencies to maintain their employability, initiatives have been launched, particularly in Engineering & Construction (E&C) and Large Industries business lines, to support them in the transition to new technologies and the development of new markets:

- in E&C, an Electrolysis product line integrating the entire value chain, from solution definition to project execution, was created in 2021. It has integrated nearly 30 employees from other organizations within E&C. Cross-functional mobility remains the preferred way to develop rich career paths and strengthen the flexibility and employability of teams;
- in Large Industries, actions have been taken according to the type of profession concerned:
 - for operations and maintenance: a training curriculum has been offered to operations managers on-site since 2020 to support the digitization of industrial processes (maintenance, reliability, safety) and the evolution of their functions,
 - for the sales teams: the training curriculum is updated several times a year and rolled out to strengthen the teams' skills. The implementation of individual development plans is underway,
 - for the teams in charge of energy management, two priority actions are being rolled out: (i) the implementation of individual development plans; (ii) the construction of a training offer in the areas of six key competencies for "Energy Managers" as a priority, as well as for Air Liquide's management, sales teams and all of the Group's teams exposed to these developments.

Climate risks related to the physical impact

The Group's operations regularly exposed to the acute risks (paragraph 4.1.1) have risk management systems aimed at adopting appropriate preventive operational measures and managing these crises by, first and foremost, protecting individuals and the production facilities in close cooperation with customers. These systems are regularly updated and improved.

4.1.4. Monitoring scheme of measures implemented and the assessment of their effectiveness

The results of risk mitigation actions are regularly monitored by the Sustainable Development Department.

As part of the sustainability objectives announced in March 2021, Air Liquide set itself the ambition of reaching carbon neutrality by

2050, and in the medium term, to reducing its greenhouse gas emissions (Scopes 1 and 2) ⁽⁹⁾ in absolute value by 2035 by -33% compared to the 2020 baseline, with an inflexion point in around 2025. The Group also maintains its previously announced objective of -30% reduction in carbon intensity by 2025 compared to 2015.

	2020 baseline	2021	2022
Reported CO ₂ emissions (in thousands of metric tonnes of CO ₂ -eq.) ^(a)	32,529	36,364	39,306
Objective 1: reduce Scopes 1 and 2 CO ₂ emissions by -33% by 2035 compared to 2020	Restated CO ₂ emissions (in thousands of metric tonnes of CO ₂ -eq.) ^(b)	39,564	40,085
	Change in restated CO ₂ emissions compared to 2020 (in %)	—	+1.3%
			-0.3%

(a) CO₂ emissions are reported using the "market-based" methodology (see methodology for calculating scopes in paragraph 4.1.2 of the Vigilance Plan, page 117) and taking into account significant perimeter changes (upwards and downwards) as of their effective date.

(b) CO₂ emissions are restated, from 2020 and each subsequent year, to include the emissions of the assets for the full year, taking into account (upwards and downwards) changes in scope having a significant impact on CO₂ emissions. Thus, the change in restated emissions reflects the actual change in the Group's emissions on a equivalent perimeter.

The Group's total CO₂-equivalent emissions, on a comparable basis to the restated 2020 baseline (restated emissions ⁽¹⁰⁾), have remained stable for the second consecutive year (-0.3% compared to 2020), despite the strong growth in the Group's activity. This reflects the Group's strong commitment to controlling its CO₂ emissions trajectory and the measures implemented.

Reported emissions increased in 2022 due to the full-year inclusion of emissions related to the assets acquired from Sasol, which only contributed to reported emissions in 2021 from the date of their integration on June 24, 2021. The implementation of emission reduction plans in the various regions where the Group operates have helped moderate the increase of emissions, despite its strong growth in activity.

As a result, the volumes of renewable electricity, in the electricity supply, have increased by approximately 10% in 2022. The growth in the volume of renewable electricity, in the Group's purchases, is set to continue and accelerate, as shown by the signing of several long-term contracts (PPAs) in 2022, namely with Vattenfall in the Netherlands, with Shell Energy Europe Limited and with Enel Green Power, jointly with Sasol, in South Africa. In addition, the Group continues to develop CO₂ capture projects to reduce emissions associated with hydrogen production, such as the Kairos@C and Antwerp@C projects.

	2015 baseline	2020	2021	2022
Objective 2: reduce carbon intensity ^(a) by -30% by 2025 compared to 2015	Carbon intensity ^(a)	7.3	5.2	5.5
	Change in carbon intensity ^(a) compared to 2015 (in %)	—	-29%	-24%
				5.5 ^(b)
				-25%

(a) In kg CO₂-equivalent/euro of Operating income recurring before depreciation and amortization and excluding IFRS 16 at 2015 exchange rates for Scopes 1 and 2 of greenhouse gas emissions using the "market-based" methodology (see methodology for calculating scopes in paragraph 4.1.2 of the Vigilance Plan, page 117, and the reconciliation in paragraph Performance indicators of chapter 1, page 61).

(b) Carbon intensity calculated on the basis of reported CO₂ emissions for the reporting year, taking into account significant perimeter changes (upwards and downwards) as of their effective date.

Following the acquisition of the Sasol Air Separation Units in South Africa on June 24, 2021, the Group's carbon intensity ⁽¹¹⁾ increased in 2021, reflecting only half-year impact, from the date of acquisition. The 2022 emissions include a full year of operation of these acquired units. Nevertheless, the control of the CO₂ emissions trajectory and the Group's financial results have allowed the carbon intensity to stabilize from 2022.

In order to complete the measurement of progress towards the CO₂ emissions reduction objectives, the Group has identified the following key indicators. They track the progress resulting from the actions implemented and described in paragraph 4.1.3.

⁽⁹⁾ In tonnes of CO₂-equivalent for Scopes 1 and 2, using the "market-based" methodology (see methodology for calculating scopes in paragraph 4.1.2 of the Vigilance Plan, page 117), restated, from 2020 and each subsequent year, to include the emissions of the assets for the full year, taking into account (upwards and downwards) changes in scope having a significant impact on CO₂ emissions.

⁽¹⁰⁾ CO₂ emissions are restated, from 2020 and each subsequent year, to include the emissions of the assets for the full year, taking into account (upwards and downwards) changes in scope having a significant impact on CO₂ emissions.

⁽¹¹⁾ In kg CO₂-equivalent/euro of Operating income recurring before depreciation and amortization and excluding IFRS 16 at 2015 exchange rates for Scopes 1 and 2 of greenhouse gas emissions using the "market-based" methodology (see methodology for calculating scopes in paragraph 4.1.2 of the Vigilance Plan, page 117, and the reconciliation in paragraph Performance indicators of chapter 1, page 61).

Vigilance Plan

Indicators		2020	2021	2022
Share of renewable electricity on the total of consumed electricity		16.5%	16.8%	17.5%
Energy efficiency of production units ^(a)	ASU ^(b)	100.5	99.9	100.3
	HyCO ^(c)	99.9	98.0	95.6
Operated or decided electrolyzer capacity (in MW) ^(d)		—	65	83
Carbon footprint of air gases (N ₂ , O ₂ and Ar) delivered in bulk, cylinders or on-site products by Industrial Merchant business line (in kg CO ₂ -eq./ metric tonnes)		289	269	276
Avoided CO ₂ emissions by Air Liquide or its customers (in millions of metric tonnes of CO ₂ -eq.) ^(e)		14.8	15.1	13.3

(a) These indicators are calculated on the reference year 2015 (base 100). Efficiency can be affected by reliability, maintenance, number of turnarounds, startups and ramps ups.

(b) ASU: Air Separation Units. The efficiency of ASU is measured by the volume of air gases produced per unit of energy consumed. Produced gases (oxygen, nitrogen, argon) are accounted in m³ of gaseous oxygen equivalent.

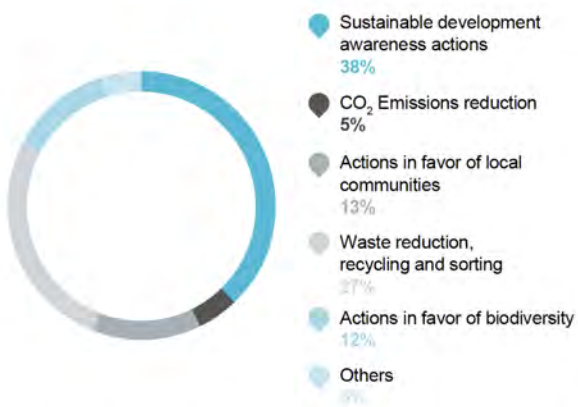
(c) HyCO: production units for hydrogen and carbon monoxide. Efficiency corresponds to the volume of hydrogen produced per unit of energy consumed.

(d) After the revision of the reporting process for small units, the 2021 figure was revised downward in 2022 due to changes in scope and exclusion of units that were previously double counted as well as units that were found to no longer be in operation.

(e) These avoided emissions cover only the avoided emissions directly attributable to the optimization of Air Liquide's assets and to the use of Air Liquide's solutions by its direct customers. They do not include avoided emissions induced at the level of end-use.

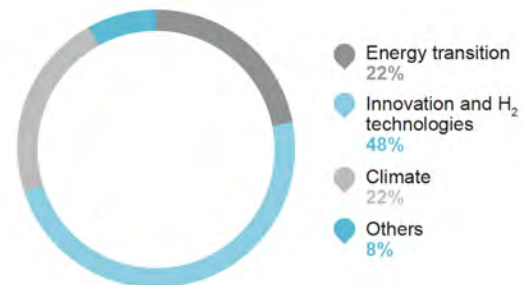
Actions carried out by the community of Sustainability Ambassadors are regularly followed-up. Since the creation of this collective, their initiatives have been recorded and communicated at the Group level in order to be replicated.

TYPES OF INITIATIVES IN 2022



In 2022, the Group continued to raise employee awareness of the various actions undertaken in favor of sustainable development (presentation of the sustainability objectives, challenges of the energy transition, actions available to employees to contribute to sustainability, etc.).

TRAINING IN 2022



4.2. RISKS RELATED TO WATER MANAGEMENT



4.2.1. Description of salient risks

Air Liquide respects the human right to water and sanitation. Water management in its activities can have two main types of impact on people, related to the withdrawal and consumption of water on the sites where the Group operates, or related to the quality of water returned to ecosystems after usage.

Risks related to the withdrawal and use of water

Impacts associated with water withdrawal may vary depending on the location. Areas where it is difficult to meet human and environmental needs for water due to poor availability, quality or accessibility are called water stress areas. In these areas, conflicts for water between different usages and users may arise.

Risks related to the quality of water returned to ecosystems

The quality and specifications of the water returned to ecosystems are important in assessing the impact of the Group's operations, either because of the presence of pollutants, contaminants content, or the temperature, which can induce direct or indirect pollution and damages to ecosystems.

4.2.2. Regular assessment procedures

Risks related to the withdrawal and use of water

Water consumption is measured by subtracting water return from water withdrawal by the Group in the course of its business. The difference is due to:

- the loss of water through evaporation in the cooling process of rotating machines, particularly for the production of air gases; and
- its use as a raw material for the manufacture of products such as hydrogen.

With regard to Air Separation Units (ASU), there are several types of cooling systems:

- 54% of these units have semi-open water circuits, where some of the water evaporates during cooling;
 - 39% of these units have open circuits. Water runs through the plant for cooling purposes and all water withdrawn is returned.
- Both types of units require continuous water top-ups for cooling;

- finally, the other units have closed systems, which do not withdraw water from their surrounding environment. The latter no longer consume water after the initial filling.

As water is a limited resource and not equally available across all regions, Air Liquide has assessed the risks associated with water consumption at its sites by referring to the "Aqueduct 3.0 Water Risk Atlas", the latest map of the World Resource Institute (WRI) published in August 2019. This assessment takes into account the specific data for each site according to its location in relation to a watershed, groundwater and an administrative boundary.

To carry out this assessment, the Group used the "business as usual" scenario (SSP2 RCP8.5 of the IPCC). Each site is thus identified as belonging to water stress area or not (area defined according to the intensity of water conflict). This mapping also includes new units.

An analysis conducted in 2022 and targeting operations with high water consumption (identified as facilities with water withdrawal in excess of 50 000 m³ per year) shows that 78 sites are located in high or extremely high water stress areas. By 2025, 100% of these sites aim to implement a documented water management plan to reduce the risks related to water withdrawal and use.

Risks related to the quality of water returned to ecosystems

Measurements and analyses of discharged water, to assess its quality, are carried out at a frequency consistent with and according to the requirements laid down in local regulations.

4.2.3. Appropriate actions to mitigate risks and prevent serious impacts

Water management policy

To manage the risks associated with water withdrawal and use as well as the quality of the water returned to ecosystems, a water management policy was published in the BlueBook ⁽¹²⁾ in 2021. This policy identifies the impacts of Air Liquide's activities on water availability and quality. The policy defines the principles of risk management based on a thorough assessment of the situation at each site. Finally, it describes the actions to be implemented to ensure appropriate water management.

WATER MANAGEMENT OBJECTIVES

In 2022, Air Liquide launched the roll-out of this policy by focusing on the following objectives, defined for the Group in 2021:

- implementing a documented water management plan by 2025 in 100% of the sites concerned, aimed at reducing the risks related to water withdrawal and use for water-intensive operations in high water stress areas;
- defining and implementing a Group-wide standard for all operations, that goes beyond existing local processes and procedures, to ensure that the quality of discharged water meets or exceeds applicable local criteria.

Organizational structure and reporting tool

Air Liquide has a network of water experts across all regions. They are the dedicated contact points for all questions relating to water and its use and are responsible for verifying data (withdrawal, discharge, quality). In 2022, a work group bringing together several of these experts drew up the foundation necessary for the roll-out of the Group's water management policy. This consisted, on the one hand, in assessing sites

according to their level of water use and their location in a water stress area, and on the other hand, in creating guidelines, standards and tools to support the field application, planned from 2023. In this context, the Group now has:

- guidelines and tools for the implementation of a water management plan for high water consumption operations in high water stress areas;
- new technical standards for the monitoring and control of discharged water, which will be issued to all operations in 2023.

In addition, in 2022, the Group continued to improve water data collection and reporting accuracy. The technical procedure used for the reporting of environmental data has been updated. Training webinars were organized for operational teams in charge of environmental data reporting.

Water treatment solutions

Air Liquide provides its customers with efficient and easy-to-implement solutions for water treatment to face environmental challenges especially in the fight against water stress and scarcity.

Oxygen (O₂), ozone (O₃) and carbon dioxide (CO₂) play a fundamental role in drinking water and wastewater treatment processes. These gases are key to balance mineral levels in desalination water plants, or to eliminate pollutants from surface drinking water. For industrial players seeking technologies to treat and recycle water, these molecules help boost the removal of organic pollution from wastewater and to avoid corrosion or clogging in cooling systems.

4.2.4. Monitoring scheme of measures implemented and the assessment of their effectiveness

In 2022, Air Liquide withdrew 973 millions of m³ of water from various sources. 87% was provided by customers, 6% came from freshwater sources such as rivers or lakes, 2% from municipal sources and the remaining 5% from various other sources. The Group returned 90.6% of this water and the Group's actual consumption was 91 million m³.

In 2022, more than 40% the water discharged from Air Liquide facilities has been reused by third parties (generally, customers) for their own usage, after treatment, if necessary. This use allowed the third party not to withdraw the corresponding amount of water from the environment.

	2020	2021	2022
Annual water withdrawal (estimate in millions of m ³) ^(a)	257	950 ^(b)	973
Annual water consumption (estimate in millions of m ³) ^(c)	90	82	91

(a) Gross withdrawal.

(b) In 2021, the implementation of a new reporting tool and of new reporting criteria has allowed to increase the scope of measurement to include more open cooling circuits.

(c) Net water consumption, calculated as the difference between the water withdrawn and the water returned to the source.

In 2022, Air Liquide consumed 91 millions of m³ of water, a 11% increase compared with 2021, which is mainly related to acquisitions, and in particular to the acquisition of the Sasol production units in South Africa.

⁽¹²⁾ The BlueBook is Air Liquide's Global Reference Manual, which gathers the Group's codes, policies and procedures and forms the basis for the Group's internal control and risk management system.

5. Suppliers and subcontractors

Air Liquide has more than one hundred thousand tier-1 suppliers and subcontractors (hereinafter "suppliers"). The Group's largest procurement categories are energy, technical services, welding hardgoods and equipment.

Two levels of the organization are involved in procurement activities in the Air Liquide Group. The Group Procurement Department and the corresponding functions in the hubs and World Business Units are responsible for the main procurement categories, with the exception of energy purchases. The latter are managed by departments specialized in energy management. The Group Procurement Department drew up a Sustainable Procurement procedure in 2012, and updates it regularly ⁽¹⁾ to take into account any regulatory changes and the Group's ambitions ⁽²⁾.

5.1. RISK MAPPING

5.1.1. Methodology

The duty of vigilance risk mapping methodology for suppliers is based on identifying the suppliers most exposed to sustainability risks (Sustainability-Critical Suppliers). For this purpose, four criteria are used:

- 1° annual spend;
- 2° the risk relating to the nature of the supplier's activity;
- 3° the risk relating to the supplier's country of operation; and
- 4° the supplier's dependency on Air Liquide.

The amount of annual spend is used to prioritize the suppliers and systematically include in the identification of Sustainability-Critical Suppliers those on whom the Group spends more than 200,000 euros per year.

Identification criteria

1° Annual spend	2° Risk relating to the nature of the activity	3° Risk relating to the country of operation	4° Dependency
>€200K	Severe	Regardless of the risk level	Regardless of the supplier dependency ratio
	High and medium high	High and medium	
	High and medium high	Low	>25%
	Medium low, low and very low	Regardless of the risk level	

In addition to the criteria set out above, the local Procurement functions are free to determine more stringent criteria, in particular due to specific risks identified, so that other suppliers are selected as Sustainability-Critical Suppliers.

5.1.2. Results in 2022

The mapping of supplier-related risks is updated on an annual basis by a work group composed of the Sustainable Procurement Department at Group level and buyers who are specialized by category.

In 2022, based on the methodology described above, 1,177 suppliers were identified as Sustainability-Critical Suppliers.

The nature of a supplier's activity depends on its allocation to one of 17 procurement categories, which are subdivided into more than 400 procurement sub-categories. For a more precise methodology, each procurement sub-category is allocated a global sustainability risk level, which includes in particular the environment, human rights and working conditions, on a six-level scale (severe, high, medium high, medium low, low, very low).

The risk relating to the supplier's country of operation is assessed based on a weighting of recognized public indicators on the environment (e.g. Environmental Performance Index, EPI), the health and social situation (e.g. Human Development Index, HDI) and human rights (e.g. Global Slavery Index, ITUC Global Rights Index), on a three-level scale (high, medium, low).

The dependency of suppliers on Air Liquide is also an important criterion. For example, a decrease in Air Liquide's activity with a supplier could have a social impact on the jobs of its employees. The dependency ratio calculated corresponds to the supplier's actual sales with Air Liquide divided by the supplier's total sales for the year under consideration.

Suppliers are analyzed through a grid with these four criteria. If a supplier, beyond 200,000 euros of annual spend, presents a combination of risks as indicated in the table below, it is then identified as Sustainability-Critical Supplier and requires the implementation of additional assessment measures or action plans.

The three most exposed procurement categories in number of suppliers identified are transport services, installation and erection services as well as waste management and treatment services. The 1,177 Sustainability-Critical Suppliers are spread across all the geographies where the Group operates, as indicated in the table below.

Geographies	Sustainable Critical Suppliers	
	Number	%
Asia Pacific	662	56%
Europe	343	29%
Middle East and Africa	130	11%
Americas	42	4%
Total	1,177	100%

⁽¹⁾ The last revision of this procedure dates from 2019. An update is planned for 2023.

⁽²⁾ The Sustainable Procurement procedure has been gradually rolled out to energy purchasing since 2020.

5.2. REGULAR ASSESSMENT PROCEDURES

5.2.1. Supplier qualification

In addition to the Sustainable Procurement procedure, the Group Procurement Department has defined a procedure for supplier relationship and risk management ⁽³⁾ which applies to all Group entities. This procedure aims to maximize the value and minimize the risks of Air Liquide's interactions with its suppliers while optimizing the use of Group resources. It defines the supplier qualification process, which ensures that it is able to meet Air Liquide's requirements, including compliance with applicable laws and regulations and integrity (fight against fraud and corruption, respect for human rights and international sanctions, etc.).

This procedure requires that a new supplier be subject to basic checks prior to qualification. These checks are based on the use of Dow Jones databases including in particular international sanction lists and any existing negative press articles on a supplier. In 2021, Air Liquide specified its method for analyzing the results of these checks in order to make a decision on the qualification of a supplier. In 2022, 100% of the new suppliers created in the information system were subject to these basic checks.

5.2.2. Assessment methodology

The evaluation of Sustainability-Critical Suppliers is mainly carried out using two kinds of questionnaire:

- by an **external platform** (in 2022, EcoVadis) specialized in the assessment of CSR (Corporate Social Responsibility) performance which deploys an online questionnaire based on the ISO 26000 standard to assess the CSR commitment of suppliers. The main themes covered in this questionnaire include the environment, ethics, human rights and working conditions, and the sustainable procurement procedures implemented by suppliers; or

- by Air Liquide, which created an **internal questionnaire** in 2019, as an alternative to the solution offered by the external platform. This questionnaire is sent to Sustainability-Critical Suppliers selected for the assessment campaign who refused to reply to the questionnaire sent by the external platform.

5.2.3. Assessment results

Answers provided in the questionnaires and supporting documentation produced by the suppliers are assessed by the experts from the EcoVadis external platform or by Air Liquide buyers, on a scale of 100 points. The score obtained reflects the supplier's CSR (Corporate Social Responsibility) performance.

According to the results of the assessment, suppliers can be considered as a:

- **Responsible supplier:** if the global score is equal to or greater than 45/100 and no theme is rated less than or equal to 20/100, the supplier meets Air Liquide Sustainable Procurement procedure requirements.
Validity of the score: five years or upon renewal of its contract (whichever comes first);
- **Supplier needing improvement:** global score between 25/100 and 44/100 or when the global score is equal to or greater than 45/100 but one theme is rated less than or equal to 20/100.
Validity of the score: three years, during which the supplier will implement a corrective action plan. An on-site environmental/social audit may be decided to help define the action plan;
- **Non-compliant supplier:** global score less than or equal to 24/100.
Validity of the score: one year. A corrective action plan is required in the month following its rating and must be implemented before the supplier's reassessment 12 months after its rating.

Assessment of a Sustainability-Critical Supplier (score out of 100)	Supplier score for each of the 4 themes ^(a) assessed	Overall supplier score		
		≥45	between 25 and 44	≤24
If all themes obtain a score >20				
If one theme obtains a score ≤20				

(a) The environment, ethics, human rights and working conditions, and the sustainable procurement procedures implemented by suppliers.

- Responsible supplier.
- Supplier needing improvement.
- Non-compliant supplier.

5.3. APPROPRIATE ACTIONS TO MITIGATE RISKS AND PREVENT SEVERE IMPACTS

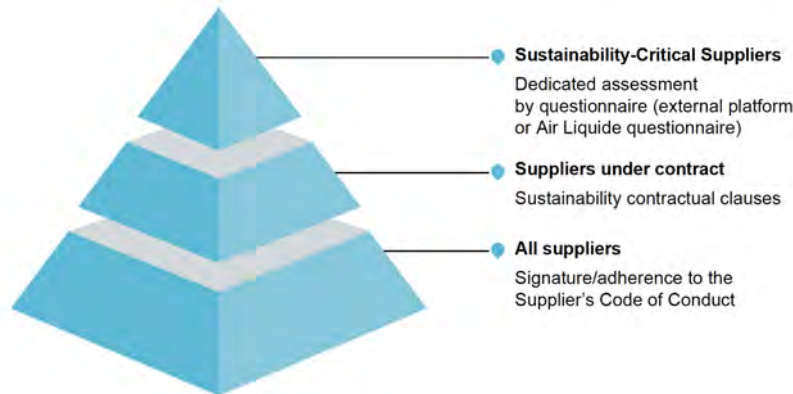
5.3.1. Procedures

In order to mitigate risks or prevent severe impacts relating to the duty of vigilance, Air Liquide rolls out all elements of the Sustainable Procurement procedure, including in particular the following prevention measures:

- application of the **Procurement Code of Conduct**, which is available in 11 languages, is mandatory for all Group employees engaged in Procurement activities;

- the **Supplier's Code of Conduct**, which is available in 14 languages, aims, in particular, to promote and ensure that all suppliers respect practices relating to human rights, the protection of the environment and safety. This code is publicly available on the Air Liquide website (<https://www.airliquide.com/sustainable-development/sustainable-procurement>). It is based on the Group's Code of Conduct and all suppliers have to adhere to it / sign it;
- a **sustainability contractual clause** (covering compliance with the Supplier's Code of Conduct, safety, and the environment) is included in the contract templates with suppliers, including those for framework agreements.

⁽³⁾ The last update dates from 2020.



5.3.2. Corrective action plans

The Sustainable Procurement function, within the Procurement Department, coordinates the implementation of corrective action plans through a network of Sustainable Procurement correspondents present in each hub and World Business Unit.

In accordance with the assessment procedure for Sustainability-Critical Suppliers described in paragraph 5.2, suppliers needing improvement and non-compliant suppliers must establish a corrective action plan.

Depending on the size of the company or the type of actions to be rolled out, these plans can be established in different ways, for example:

- on the basis of the improvement areas identified during the assessment on the external platform or in the internal questionnaire;
- through participation of the suppliers in training sessions organized by the Sustainable Procurement correspondents on sustainability-related topics.

5.3.3. Training

In 2022, Air Liquide organized training sessions in French, English and Chinese to raise awareness among buyers and suppliers of the Group's Sustainable Procurement approach and thus strengthen its roll out throughout the organization. Training courses are organized by subject and by geography.

Some training courses cover, in particular, the commitments of new suppliers, the implementation of corrective action plans, the internal assessment questionnaire, as well as inclusive procurement. For buyers, these training modules also present the consistency between the Sustainable Procurement approach and Group strategy, explain the stakes of this approach and position it as a source of value creation.

A total of 279 buyers and 82 suppliers were trained in 2022 on topics related to sustainability and the duty of vigilance.

5.3.4. "Procure to Neutrality", the Procurement climate roadmap

In its new strategic plan ADVANCE for the 2022-2025 period, announced in March 2022, Air Liquide reaffirmed its ambition to achieving carbon neutrality by 2050. Procurement has a key role to play in supporting this objective throughout the supply chain of the Group's businesses, in particular:

- by supporting its suppliers in the decarbonization of the goods and services that the Group purchases;
- by helping to reduce the Group's emissions; and
- by contributing to the development of low-carbon solutions offered to its customers.

In 2021, the Group Procurement Department initiated a climate roadmap, "Procure to Neutrality" based on four pillars:

- **Measure:** improve the greenhouse gas emission calculation methodology (Scope 3), where relevant and feasible;
- **Engage** buyers, with the training of the procurement community; engage our suppliers identified on the basis of a mapping as the most significant in terms of emissions;
- **Leverage** to value contributions of Procurement to reducing Air Liquide's Scopes 1, 2 and 3 emissions;
- **Reduce:** define an objective, with the aim of aligning with the Group's carbon neutrality ambition.

In 2022, around 30% of the Procurement community took part in training sessions on key concepts for understanding climate issues, carbon accounting methodologies and greenhouse gas emission reduction objectives. In addition, 75 suppliers, among those most exposed to risks related to greenhouse gas emissions, were asked to answer a dedicated questionnaire to evaluate their level of maturity in this area.

In June 2022, Air Liquide was awarded one of the two Gold Medals in the "Procurement Team of the Year Challenge" category at the Procurement Awards in France (<https://www.republikgroup-achats.fr/laureats-trophees-des-achats-2022>) for the creation of a module integrating the assessment of suppliers' climate maturity and CO₂ emissions linked to manufacturing, transport and equipment use. This module is integrated into the selection criteria for suppliers of strategic equipment.

5.3.5. The Observatory for Sustainable Procurement

Air Liquide also takes part in collaborative and multi-sector initiatives for sustainable procurement, in particular as a member of ObsAR (the French Observatory for Sustainable Procurement, <https://www.obsar.asso.fr>). In 2018, the association created a working group around the issues presented by the Law on the Duty of Vigilance for procurement functions, following which a White Paper entitled "Implementing adapted measures to manage the duty of vigilance for suppliers and subcontractors", offering best practices, methods and tools was published. Since 2021, Air Liquide has been part of the work group on climate change launched by ObsAR.

5.4. MONITORING SCHEME OF MEASURES IMPLEMENTED AND THE ASSESSMENT OF THEIR EFFECTIVENESS

The implementation of the Sustainable Procurement procedure, and in particular the results of the Sustainability-Critical Suppliers' assessments, is monitored by the Procurement Department.

In 2022, of the 1,177 Sustainability-Critical Suppliers, the assessment and action plans campaign addressed 561 of them:

- 476 suppliers were invited to answer a questionnaire ⁽⁴⁾. 341 of them (72%) were assessed (63% by the external platform and 37% by Air Liquide using an internal questionnaire);
- 65 suppliers needing improvement were invited to set up corrective action plans. 56 of them have prepared action plans;

- 20 non-compliant suppliers were invited to set up corrective action plans. 19 of them prepared and completed action plans.

At the end of the 2022 assessment campaign, 78% of Sustainability-Critical Suppliers had a valid score (i.e. not requiring a reassessment as per paragraph 5.2.2). Other suppliers are being monitored.

The results of the assessment by the external platform show that the average of the current score is 47/100 for Sustainability-Critical Suppliers. The highest scores are on human rights and working conditions, with an average of 51/100. The lowest rating concerns the sustainable procurement procedures implemented by suppliers with an average of 39/100.

Key indicators	2022 Objectives	2022 Results
Share of Sustainability-Critical Suppliers addressed by the annual assessment campaign who responded	65%	72%
Share of suppliers needing improvement who prepared a corrective action plan (annual assessment campaign)	82%	86%
Share of non-compliant suppliers who prepared and implemented a corrective action plan	100%	95%

In 2022, the number of Sustainability-Critical Suppliers amounts to 1,177, compared to 1,007 in 2021, an increase of 17%. This base of Sustainability-Critical Suppliers has been expanded by improving the tools allowing their identification. The objectives and results for the year 2022, expressed as a percentage, show a decrease compared to 2021. However, the results in absolute terms are increasing. Indeed, if the share of Sustainability-Critical Suppliers addressed by the assessment campaign who responded is 72% in 2022 against 83% in 2021, their number was 341 in 2022 against 249 in 2021, which is 37% more.

Following the assessment results and a review of corrective action plans, Air Liquide suspended its sales relationship with five suppliers during 2022.

These performance indicators and their progress report are regularly presented to the Group Procurement Management Committee, which bring together the Hubs and the World Business Units Procurement directors.

6. Whistleblowing system

6.1. COLLECTION AND TREATMENT OF ALERTS

6.1.1. Ethics whistleblowing system

Air Liquide's Whistleblowing Policy defines the different channels a whistleblower may use to lodge an alert on any potential violation of the Group's ethics commitments and rules. It also describes how these alerts are handled by Air Liquide. This policy was updated at the end of 2022 to ensure compliance with the new applicable regulations on whistleblower protection. It is available for all employees in the BlueBook ⁽⁵⁾ and is available on the Group's Website for external stakeholders (<https://www.airliquide.com/sustainable-development/ethics>).

Since 2015, the Group has had in all its entities a whistleblowing system, EthiCall (<https://www.safecall.co.uk/en/clients/ethicall/>) for all Group companies. Access to this system was extended at the end of 2021, after consultation with employee representative bodies in France. It is now available to all internal and external

stakeholders (customers, patients, suppliers, subcontractors and their staff, local communities, facilitators, etc.) of the Group. Airgas and its subsidiaries also have a similar platform, EthicsPoint (<https://secure.ethicspoints.com/domain/media/en/gui/28723/index.html>). Anyone can lodge an alert in their own language by telephone or via dedicated websites (alerts are collected by service providers).

The alerts may relate to allegations of existing or reasonably suspected ethical breaches or misconduct that may be very likely to occur in relation to the Group's activities. For example, alerts may relate to any breach of the Group Code of Conduct and internal procedures, to any violation of applicable laws and in particular to any conduct or situation contrary to the Group's commitments in terms of:

- human rights;
- health and safety of persons;
- environment.

⁽⁴⁾ Not all suppliers are reassessed every year because their score is valid for one to five years.

⁽⁵⁾ The BlueBook is Air Liquide's Global Reference Manual, which gathers the Group's codes, policies and procedures and forms the basis for the Group's internal control and risk management system.

Vigilance Plan

For employees, this system is complementary to the usual channels for reporting possible incidents within the entities (line management, Human Resources Department, Ethics Correspondent, Group Ethics Officer). Third parties can also raise their concerns to their contact person within the Group. The whistleblowing system enables rapid and structured handling of reports received. Air Liquide communicates regularly to its employees (e.g. via posters, Intranet, reminder in the annual and mandatory e-learning relating to the Code of Conduct, managerial communication, induction training for new hires).

Once an alert is collected, it is processed confidentially and objectively by the competent person within Air Liquide, depending on the category and geographical origin of the report. After reviewing the admissibility of an alert in accordance with internal procedures, the person responsible for the alert treatment conducts an investigation to determine whether the reported facts are true, and may call on external resources for this investigation. When appropriate, the investigator proposes the associated corrective and/or remediation measures. Follow-up and feedback should be provided to the whistleblower no later than three months (but to the extent possible within two months) from the acknowledgment of receipt of the alert. In certain justified cases (for example, due to the nature or complexity of the alert), a longer period may be necessary (but this period should not exceed three additional months).

Appropriate corrective and remedial measures may include:

- the strengthening of Group policies, controls and processes;
- Human Resources or other type of assistance to the whistleblower;
- individual or collective awareness-raising;
- sanctions.

The most serious cases are reviewed by an Ethics Committee at the relevant hub or World Business Unit level, or by the Group's Ethics and Compliance Committee.

The principles concerning the protection granted to whistleblowers (anonymity of the whistleblower, respect for the confidentiality of the alert treatment, prohibition of any form of retaliation) are affirmed in the Code of Conduct and the Group Whistleblowing Policy. The Group guarantees that any whistleblower who has in good faith reported an ethical breach or misconduct will not be subject to any disciplinary or discriminatory measures or retaliation of any kind.

6.1.2. Safety and security event reporting process

Urgent situations in terms of health, safety or security, or the most serious accidents cannot be processed by the ethics whistleblowing system. The Safety and Industrial System Department has an internal reporting process for security or safety incidents, which makes it possible to inform the management chain and the relevant security or safety managers of the subsidiary, cluster, hub and Group very quickly, depending on the severity. A crisis management and incident monitoring process is therefore implemented to ensure the best care of any victims, secure the situation and establish an investigation team which is both qualified and adapted to the incident. Subsidiaries regularly report all safety and security events in the Group's reporting tool. This tool was replaced at the beginning of 2021 by a new tool that improves both the quality of the information reported and the monitoring of corrective action plans.

6.1.3. Process for the protection of personal data

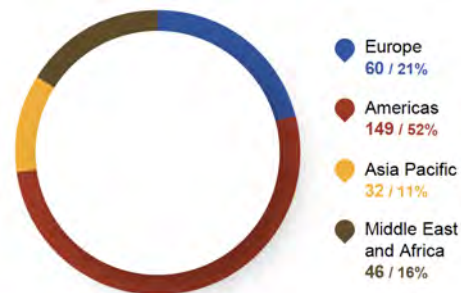
For personal data, Air Liquide has deployed specific tools to collect requests for the exercise of rights and to report possible violations of personal data. A form is available on the Air Liquide website (<https://contactprivacy.airliquide.com/>) to be put in contact with the services in charge of the protection of DCP. In addition, Air Liquide has signed a contract with a company responsible for finding and reporting personal data that is illegitimately accessible via the Internet. These requests and reports are recorded in a dedicated register.

6.2. MONITORING SCHEME OF MEASURES IMPLEMENTED AND THE ASSESSMENT OF THEIR EFFECTIVENESS

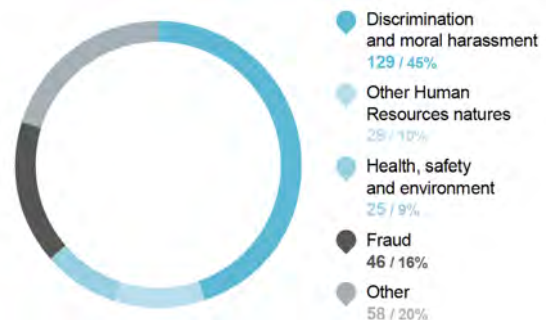
The whistleblowing system is supervised by the Group Ethics Officer, who ensures a compliant implementation, and in particular that it is properly disseminated throughout the Group, that alerts are processed appropriately, and whistleblowers are protected. The Group Ethics Officer reports back to the Group Ethics and Compliance Committee and to the Audit and Accounts Committee of the Board of Directors on the main indicators and lessons learned from this system.

In 2022, 287 alerts were reported in the whistleblowing system.

BREAKDOWN OF ALERTS PER GEOGRAPHY (number / %)



BREAKDOWN OF ALERTS PER NATURE (number / %)



As of December 31, 2022, 66 alerts were still in process of treatment. 27% of alerts received in 2022 were found to be justified following investigation and led to corrective remediation measures.

A presentation of the whistleblowing system and its main results is shared each year with the employee representatives of L'Air Liquide S.A.

In addition, in 2022, Air Liquide recorded 50 requests throughout the Group for the exercise of rights or reports of violations of personal data.



3

Corporate governance

MANAGEMENT AND CONTROL	132	DESCRIPTION OF THE STOCK OPTION AND PERFORMANCE SHARE PLANS	237
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This chapter includes, in particular, the elements of the Report on Corporate Governance drawn up on the basis of Ordinance No. 2017-1162 of July 12, 2017 by the Board of Directors at its meeting on February 15, 2023, on the recommendation of the Appointments and Governance Committee and the Remuneration Committee.

Those parts constituting this Report have been prepared on the basis of contributions from several of the Company's corporate functional divisions, including, in particular, the Legal, Financial and Human Resources Departments.

MANAGEMENT AND CONTROL

1. Composition of the Board of Directors

DIRECTORS CURRENTLY IN OFFICE (AS OF DECEMBER 31, 2022)

Members of the Board	Changes in 2022 ^(a)	Nationality	Age ^(b)	Gender	Year of first appointment	Years of service on the Board ^(b)	End of current term	Independent Director ^(c)
Benoît POTIER Chairman of the Board of Directors	May 4, 2022 (renewal: member BoD) Until May 31, 2022: Chairman and Chief Executive Officer June 1, 2022 (renewal: Chairman of the BoD)	French	65	M	2000	18	2026	No
François JACKOW Chief Executive Officer (CEO)	May 4, 2022 (appointment: member BoD) June 1, 2022 (appointment: Chief Executive Officer)	French	53	M	2022	< 1	2026	No
Xavier HUILLARD Lead Director	May 4, 2022 (appointment: LD; Chairman of AGC)	French	68	M	2017	5	2025	Yes
Annette WINKLER		German	63	F	2014	8	2026	Yes
Philippe DUBRULLE Director representing the employees		French	50	M	2014	8	2026	No
Siân HERBERT-JONES		British	62	F	2011	11	2023 ^(e)	Yes
Geneviève BERGER		French	67	F	2015	7	2023 ^(f)	Yes
Anette BRONDER^(g)		German	55	F	2020	2	2024	Yes
Kim Ann MINK		American	63	F	2020	2	2024	Yes
Fatima TIGHLALINE Director representing the employees	May 4, 2022 (appointment: member RC)	French	43	F	2020	2	2024	No
Aïman EZZAT	May 4, 2022 (appointment: member AAC)	French	61	M	2021	1	2025	Yes
Bertrand DUMAZY	May 4, 2022 (appointment: member AGC)	French	51	M	2021	1	2025	Yes

(a) BoD: Board of Directors; LD: Lead Director; AAC: Audit and Accounts Committee; AGC: Appointments and Governance Committee; RC: Remuneration Committee; ESC: Environment and Society Committee.

(b) Number of full years of service as of December 31, 2022. The term of office of Mr Benoît Potier as President of the Management Board (2001-2006) is not taken into account.

(c) Pursuant to the decision of the Board of Directors of February 15, 2023; for information regarding independence criteria, please refer to this Universal Registration Document – pages 139 to 142.

(d) In accordance with the recommendation of the AFEP/MEDEF Code.

SOCIAL AND ECONOMIC COMMITTEE DELEGATE

Pierre GAC Social and Economic Committee Delegate

NEW CANDIDATES PROPOSED TO THE GENERAL MEETING OF MAY 3, 2023

Catherine GUILLOUARD – Christina LAW – Alexis PERAKIS-VALAT – Michael H. THAMAN –
Monica de VIRGILIIS (Ratification of the temporary appointment)

Number of shares owned as of December 31, 2022	Board Committees				Number of directorships in listed companies ^(d)	Experience and expertise
	Audit and Accounts Committee	Appointments and Governance Committee	Remuneration Committee	Environment and Society Committee		
601,380					1	Chairman of the Board of Directors Deep knowledge of the Air Liquide Group and its activities as former Chairman and Chief Executive Officer
52,972					0	Chief Executive Officer (CEO) Deep knowledge of the Air Liquide Group and its activities as a former Executive Committee Member and Executive Vice President
2,226		Chairman	Chairman		1	Experience as a Chairman and Chief Executive Officer of a large international group and knowledge of construction business
2,900		Member		Chairwoman	1	Former Senior Management of a division of a large German industrial group with an international reach in the automotive sector
N/A				Member	0	Knowledge of the Air Liquide Group and its activities as an employee
1,124	Chairwoman				2	Expertise in finance and audit, knowledge of the Service sector
677				Member	0	Expertise in hospital, health and research
550	Member				0	Expertise in digital and the field of cybersecurity, experience of large international groups in IT and Telecoms
550			Member		2	Scientific expertise and experience in research and innovation; Managerial skills and knowledge of the chemical industry
N/A			Member		0	Knowledge of the Air Liquide Group and its activities as an employee
500	Member				1	Chief Executive Officer of a major international group, experience in the digital sector, financial expertise and knowledge of many industrial sectors
550		Member			2	Managerial skills acquired at several global companies in both the industrial and service sectors, experience in digital transformation and change management

(e) The Board of Directors, in agreement with Ms Siân Herbert-Jones, agreed that the renewal of her office will not be proposed to the General Meeting of May 3, 2023.

(f) The Board of Directors, in agreement with Ms Geneviève Berger, agreed that the renewal of her office will not be proposed to the General Meeting of May 3, 2023.

(g) Ms. Anette Bronder has informed the Board of Directors that she will resign from her office as Director with effect from January 3, 2023. This decision is linked to her intention to take up executive office with an audit firm, which is not compatible with maintaining her office as a Director of L'Air Liquide S.A.

2. Executive Management and Executive Committee as of December 31, 2022

<p>François Jackow Chief Executive Officer (CEO) Born in 1969 – French</p>	<p>Ronnie Chalmers Vice President In charge of the Africa / Middle East / India hub Born in 1968 – British</p>
<p>Michael J. Graff Executive Vice President In charge of the Americas hub Supervises the Electronics World Business Line and the Engineering & Construction activities Chairman of the Board of Airgas Born in 1955 – American</p>	<p>Marcelo Fioranelli Vice President Chief Executive Officer of Airgas Born in 1968 – Brazilian</p>
<p>Fabienne Lecorvaisier Executive Vice President In charge of the General Secretariat (Legal, General Control and Shareholders Service), Sustainable Development and Public & International Affairs functions Born in 1962 – French</p>	<p>Matthieu Giard Vice President In charge of the H2-Force initiative Supervises the Hydrogen Energy and Industrial Merchant World Business Lines Born in 1974 – French</p>
<p>François Abrial Senior Vice President In charge of the Asia Pacific hub Born in 1962 – French</p>	<p>Armelle Levieux Vice President In charge of Group Human Resources Born in 1973 – French</p>
<p>Jean-Marc de Royere Senior Vice President In charge of Development Aid Chairman of the Air Liquide Foundation Born in 1965 – French</p>	<p>Émilie Mouren-Renouard Vice President In charge of Innovation, Digital & IT and Intellectual Property Supervises the Global Markets & Technologies activity Born in 1979 – French</p>
<p>François Venet Senior Vice President In charge of the Group Strategy Supervises the Large Industries Business Line Born in 1962 – French</p>	<p>Jérôme Pelletan Vice President In charge of the Finance Department Born in 1970 – French</p>
<p>Pascal Vinet Senior Vice President In charge of the Europe Industries and Africa / Middle East / India hubs and the Safety and Industrial Systems function Born in 1962 – French</p>	<p>Diana Schillag Vice President In charge of the Global Procurement Function and the Performance Improvement Program Supervises the Healthcare Business Line and the Europe Healthcare hub Born in 1971 – German</p>

Mr Benoît Potier ceased to be Chairman and Chief Executive Officer on May 31, 2022. His term of office as Chairman of the Board of Directors was renewed with effect from June 1, 2022.

Mr François Jackow was appointed Chief Executive Officer as of June 1, 2022.

GOVERNANCE – COMPOSITION, FUNCTIONING AND WORK OF THE BOARD OF DIRECTORS AND COMMITTEES

1. Corporate Governance Code

The Board of Directors confirmed that, in keeping with the Group's previous practices, the AFEP/MEDEF Code of Corporate Governance for listed companies is the Code to which the Company voluntarily refers. This Code in its updated version is available on the website <https://afep.com/wp-content/uploads/2022/12/Code-AFEP-MEDEF-version-de-decembre-2022.pdf>.

The Appointments and Governance Committee and the Remuneration Committee reviewed current practices in the Company with respect to the AFEP/MEDEF Code as amended in December 2022. The Company considers that its practices comply with the recommendations of the AFEP/MEDEF Code and no points appear in the summary table (see below, paragraph "Application of the AFEP/MEDEF Corporate Governance Code: summary table" – page 159) established under the "Apply or Explain" rule provided for by article L. 22-10-10 of the French Commercial Code, and referred to in article 28.1 of the AFEP/MEDEF Code of December 2022.

The Report of the Haut Comité de gouvernement d'entreprise (French High Committee on Corporate Governance) of November 2022 and the French financial market authority (Autorité des Marchés Financiers) Report on Corporate Governance and the remuneration of Executive Officers of listed companies published in December 2022 were reviewed by each of the Committees concerned, which then made a report to the Board of Directors.

The principles governing the professional ethics of Directors, the diversity policy which applies to the Board of Directors, together with the composition, role and rules of operation of the Board and its Committees are defined in the internal regulations. The latter was last amended by successive decisions of the Board of Directors in November 2022 and February 2023 in order in particular to further specify the duties of the Audit and Accounts Committee, the Environment and Society Committee, and the joint session between these two Committees, and to take into account the AFEP/MEDEF Code updates (see details in paragraphs 9.3 and 10.1 – respectively pages 151 and 154 of this Document).

The internal regulation updated version is published in full on the Company's website: https://www.airliquide.com/sites/airliquide.com/files/2023-02/internal-regulations-of-the-board-of-directors_february-2023.pdf.

2. Governance structure

Air Liquide's governance is historically defined by an effort to remain relevant to the Group's challenges, to respect Shareholders' rights, to balance powers and to ensure best practices evolve.

2.1. CURRENT METHOD OF GOVERNANCE: SEPARATION OF THE FUNCTIONS OF CHAIRMAN OF THE BOARD OF DIRECTORS AND CHIEF EXECUTIVE OFFICER

Since June 1, 2022, the governance of L'Air Liquide S.A. is a governance with a Board of Directors with separation of the functions of Chairman of the Board of Directors from those of Chief Executive Officer.

The Board of Directors' meeting of May 4, 2022, at the close of the General Meeting, acting unanimously and in accordance with the recommendations of the Appointments and Governance Committee, chose to adopt this method of governance, effective June 1, 2022, and to appoint Mr François Jackow as new Chief Executive Officer and to renew the duties of Mr Benoît Potier as Chairman of the Board of Directors (see paragraph 2.2 in this section, pages 137 to 138, for details of the succession). On this occasion, the Board of Directors also decided to maintain the position of Lead Director.

2.1.1. Powers of the Chief Executive Officer

As an Executive Officer, the Chief Executive Officer who alone oversees and manages the operations of the Company, is invested with the broadest powers to act in all circumstances in the Company's name subject to certain decisions to be submitted to prior authorization of the Board of Directors as established in the articles of association and described in the internal regulations (see below).

Limits on the powers of the Chief Executive Officer

In accordance with article 13 of the articles of association, the decisions subject to the prior authorization of the Board of Directors are defined in the internal regulations of the Board of Directors.

These decisions, which concern the Company or, where applicable, the “Group” (including the Company and the “controlled entities”) are defined below:

- a. Sureties, endorsements and guarantees given by the Company for an individual amount in excess of 100 million euros or for an annual cumulative amount in excess of 500 million euros, subject to the specific resolutions taken by the Board of Directors.
- b. External sales or contributions (to companies other than majority controlled companies) concerning the Group:
 - of real estate assets for an individual amount in excess of 80 million euros or for an annual cumulative amount in excess of 150 million euros;
 - of equity investments, either in whole or in part, for an individual amount in excess of 250 million euros or for an annual cumulative amount in excess of 400 million euros;
 - signing of any merger, demerger agreement or agreement for a partial business transfer, for an individual amount in excess of 250 million euros or for an annual cumulative amount in excess of 400 million euros, subject to the specific provisions applicable to the Company as set out below;
 - of lines of business, for an individual amount in excess of 250 million euros or an annual cumulative amount in excess of 400 million euros.

With regard to the Company, the authorization of the Board of Directors will be required in order to enter into, in the name of the Company, external contributions in kind or partial business transfers, for an individual amount in excess of 250 million euros or for an annual cumulative amount in excess of 400 million euros; the authorization of the Board of Directors will be required in order to enter into, in the name of the Company, any merger, demerger or comparable transaction subject to the regime applicable to mergers/demerger; it is specified that the Board of Directors may delegate, where applicable, to the Chairman and Chief Executive Officer (or the Chief Executive Officer, as the case may be) the powers to enter into such transactions under the conditions and for the amounts which it will determine.

- c. Creation of pledges or security by the Company for an individual amount in excess of 80 million euros or for an annual cumulative amount in excess of 150 million euros.
- d. Concerning the Group: (i) commitments to invest in or (ii) acquire equity investments or assets, consisting of immovable or moveable property, tangible or intangible, which will be listed under “Fixed Assets” on the balance sheet, or to subscribe to share capital increases for an individual amount in excess of 250 million euros or for an annual cumulative amount in excess of 400 million euros.

The Board will be informed of operations for an individual amount in excess of 250 million euros, involving (i) purchases relating to items that cannot be listed under “Fixed Assets” on the balance sheet, such as electricity or natural gas purchases, and (ii) the sale to third parties of engineering or construction goods and services, such information being provided if possible ex ante, and in any case ex post.

Approvals of programs for investments by successive “tier” shall be requested from the Board of Directors.

- e. Any financing operation concerning the Group for an amount likely to substantially alter the Group’s financial structure.
- f. Operations likely to substantially alter the Group strategy as determined by the Board of Directors.

It is specified that when the Board of Directors’ authorization is required due to one of the overall annual ceilings set in this paragraph being exceeded, the Board of Directors may, if it considers it appropriate, renew its authorization for all or part of the authorized amount initially granted.

Moreover, in the event of a fundamental modification of the Group’s information system leading to an investment exceeding an amount of 250 million euros, the Board of Directors will be given prior information.

Mr François Jackow, Chief Executive Officer, is also a Director of L’Air Liquide S.A. In this capacity, he participates in the discussions and deliberations of the Board of Directors.

2.1.2. Duties of the Chairman of the Board of Directors

The Chairman of the Board of Directors organizes and manages the work of the Board of Directors and reports on such work to the General Meeting. He is responsible for calling meetings of the Board of Directors. He sets the dates and agenda for Board meetings, manages the conduct of the meetings themselves and leads their discussions.

The Chairman of the Board of Directors is in charge of the smooth running of the Company’s bodies. His role includes ensuring that Directors are able to accomplish their tasks. As part of this, he makes sure that they have all of the available information necessary to accomplish them effectively.

Within a context of continuity, given Mr Benoît Potier’s long experience as head of Air Liquide and his in-depth knowledge of the Group, he has been entrusted by the Board of Directors, for the duration of the managerial transition, which is, at this stage, expected to correspond to the duration of his term of office, with specific tasks over and above those legally conferred on the Chairman of the Board of Directors.

Governance – Composition, functioning and work of the Board of Directors and Committees

These duties, carried out in consultation with the Chief Executive Officer, described in the internal regulations of the Board of Directors, are as follows:

- the Chairman is involved in major decisions concerning the definition of the Group's overall strategy and organization;
- the Chairman may, at the Chief Executive Officer's request, attend internal meetings with management on these topics in order to shed light on the strategic issues;
- the Chairman may, in close collaboration with the Chief Executive Officer, represent the Group (pursuant to an institutional role) vis-à-vis the public authorities and some strategic partners and/or stakeholders;
- the Chairman may, in close collaboration with the Chief Executive Officer, meet with the principal shareholders on governance matters, in addition to more specific matters, as agreed with the Chief Executive Officer. He shall keep the Chief Executive Officer informed. He monitors the Group's shareholder strategy and continues to chair the Shareholders' Communication Committee;
- the Chairman makes his experience available to the Group and ensures that the Group's values and culture are upheld.

The Chairman attends the meetings of the Appointments and Governance Committee and the Remuneration Committee. He plays an active role in the recruitment of Directors led by the Appointments and Governance Committee. The Chairman reports to the Board on the performance of his responsibilities.

2.1.3. Report on the activities of the Chairman of the Board of Directors

As set out in the internal regulations, the Chairman reported to the Board on the performance of his duties during the past fiscal year, in his capacity as Chairman of the Board of Directors from June 1 to December 31, 2022.

During this period and in addition to the traditional duties of a Chairman of the Board of Directors, Mr Benoît Potier took part in numerous events organized by the public authorities at national and European levels to represent the Group (as part of his institutional representation missions), such as the Franco-German meetings in Evian and the meetings in Aix en Provence (where Mr Benoît Potier gave a presentation on the subject "Finding the decarbonization trajectory"). He also represents Air Liquide in organizations dealing with subjects relevant to the Group: he co-chairs the National Hydrogen Council, and regularly participates as a member in the meetings of the Hydrogen Council, ERT (European Round Table) and the Asia Business Council.

In 2022, in addition to the General Meeting of May 4, 2022, which remains a privileged moment for exchange between the Chairman and the Shareholders, Mr Benoît Potier took part in events that enabled him to meet personally individual shareholders: in particular a "Post-General Meeting" session held in Lille on May 12, 2022, and the inauguration of the Shareholder Lounge at the Company's head office with Mr François Jackow in November 2022. Furthermore, the Individual Shareholder Communication Committee, chaired by the Chairman of the Board of Directors, met three times in 2022.

As part of the meetings with investors that are organized every year, the Chairman also met with three major shareholders in 2022 to discuss governance issues.

Mr Benoît Potier also took part in the recruitment of new Directors overseen by the Appointments and Governance Committee – see below paragraph 3.1 - pages 138 to 139. As the search for candidates is carried out in accordance with Air Liquide's own criteria, the Chairman of the Board of Directors shared his in-depth knowledge of the Group's business lines and culture with the Committee.

2.2. METHOD OF GOVERNANCE PRIOR TO JUNE 1, 2022 (COMBINATION OF THE ROLES OF CHAIRMAN AND CHIEF EXECUTIVE OFFICER) – WORK RELATED TO THE SUCCESSION

Between May 2006 and May 2022, the Board of Directors had set up a mode of governance combining the roles of Chairman of the Board of Directors and Chief Executive Officer, exercised by Mr Benoît Potier.

At the time of the successive renewals of the term of office of Mr Benoît Potier (the last one having taken place in May 2018), the Board of Directors considered this mode of governance as being the most appropriate. The members of the Board, as part of the annual assessment of its operations, considered that the powers in place within the existing governance functioned in a balanced manner, with in particular:

- the presence of a Lead Director with specific prerogatives and powers;
- the composition of the Board of Directors ensuring the preponderance of independent Directors and a balance of skills and nationalities;
- the presence of specialized committees, including the Appointments and Governance Committee, responsible in particular for ensuring the proper functioning of the management bodies;
- a balanced organization of interactions between the Chairman and Chief Executive Officer, the non-executive Directors and the members of the Executive Committee.

Succession

Following the work carried out from 2018, the Appointments and Governance Committee defined a succession plan including the choice of governance structure considered most appropriate for the Company, and examined the selection of the candidate who would succeed Mr Benoît Potier to the Executive Management.

As part of this work, the Committee reviewed and analyzed the Group's main talent and selected candidates exhibiting the required skills and qualities most suited to the Group's future challenges. A study of the evolution of the chosen candidates' careers and their achievements in their managerial responsibilities was conducted by the Committee throughout the process. The Committee decided that, in light of the quality of profiles examined, an internal candidate should be prioritized. The Committee decided that the skills, depth of experience and personal qualities of Mr François Jackow made him the best candidate to succeed Mr Benoît Potier. As a result, Mr François Jackow's appointment was recommended to the Board of Directors with the full consent of Mr Benoît Potier.

The Board of Directors considered that the separation of the functions of Chairman and Chief Executive Officer was the most appropriate mode of governance for the Company in the context of managerial succession. The Board wished the Group to continue to benefit from Mr Benoît Potier's unparalleled experience following his 20 years at the Company's helm, his commitment to promoting the Group's culture and values, his governance expertise founded on transparency and close ties with the Company's Shareholders. The term of office of Mr Benoît Potier as Director was renewed by the General Meeting of May 4, 2022.

Within this context of continuity, given Mr Benoît Potier's long experience as head of Air Liquide and his in-depth knowledge of the Group, he has been entrusted for the duration of the managerial transition, which is, at this stage, expected to correspond to the duration of his term of office, with specific tasks over and above those legally conferred on the Chairman of the Board of Directors – see above, paragraphs 2.1.2 and 2.1.3, pages 136 and 137.

The Board, having deemed the qualities of François Jackow in line with the Group's performance and development strategy, decided, on the recommendation of the Appointments and Governance Committee, to appoint him as Chief Executive Officer. Mr François Jackow was also appointed as a Director by the General Meeting of May 4, 2022.

At the close of this same Meeting, the Board of Directors appointed Mr Xavier Huillard as Lead Director and decided to retain him in this position in the context of the entry into force of the new separate governance on June 1, 2022. The Board, on the recommendation of the Appointments and Governance Committee, also appointed Mr François Jackow as Chief Executive Officer and reappointed Mr Benoît Potier as Chairman of the Board of Directors.

This new governance came into force on June 1, 2022.

3. Composition of the Board of Directors

BOARD OF DIRECTORS as of 12/31/2022

12 members

INDEPENDENT DIRECTORS ^(a)	DIRECTORS REPRESENTING THE EMPLOYEES	PARITY ^(a)	NATIONALITIES	AVERAGE LENGTH OF PRESENCE ON THE BOARD
80%	2	50%	4	6 years

(a) Directors representing the employees are not taken into account for the calculation of this percentage.

As of December 31, 2022, the Board of Directors comprised twelve members: ten members appointed by the General Meeting, four of whom are foreign nationals (German, American and British) and five are women, and two Directors represent the employees.

As indicated in the table on pages 132 to 133, experience in the fields of industry, services, research and innovation, healthcare, chemicals and the construction professions are represented on the Board. The Directors also bring cross-functional skills such as finance, CSR and digital, as well as the vision of managers of large international groups.

Each year, the Board of Directors reviews its composition so that it reflects a diversity of profiles, experience and skills adapted to the Group's challenges.

In accordance with the AFEP/MEDEF Code, the internal regulations provide for a maximum of four other terms of office held within French or foreign listed companies for non-Executive Directors. This number is reduced to two other terms of office for Executive Directors of the Company. Moreover, an obligation to provide information on the terms of office held in other companies, including their participation on the Board Committees of such companies, is provided for non-Executive Directors. In this context, the Board of Directors was informed of the appointment of Ms Geneviève Berger as a member of the Curie Institute Supervisory Board.

Besides, an obligation to ask for the opinion of the Board of Directors (which makes a decision on the recommendation of the Appointments and Governance Committee) before accepting a new corporate office in a listed company is also provided for the Company's Officers.

3.1. DIVERSITY POLICY – SELECTION OF NEW MEMBERS OF THE BOARD OF DIRECTORS

The internal regulations stipulate that:

"The members are chosen for their skills, their integrity, their independence of mind and their determination to take into account the interests of all shareholders."

"**Diversity policy concerning the Board of Directors:** the composition of the Board of Directors, with regard to its members appointed by the General Meeting upon the proposal of the Board of Directors, shall reflect diversity and complementarity of experience, in particular international experience, nationalities, age, gender, cultures and expertise, including a significant number of executive managers or former executive managers; the Board of Directors shall look for persons possessing skills in the following areas: marketing, services, industry, finance, healthcare, research, technology and corporate social responsibility."

The diversity policy which applies to the members of the Board is accompanied by guidelines, which are set forth in the internal regulations which, although not written in stone, also guide the composition of the Board, in particular in terms of the number of Directors appointed by the General Meeting (in principle 10 and 12), the duration of the terms of office (four years, principle of staggering renewals, the proportion of members appointed by the General Meeting in office for more than 12 years cannot exceed one-third), age or the proportion of members who qualify as independent, thus aiming to comply with the recommended principles in terms of good Corporate Governance practices.

Governance – Composition, functioning and work of the Board of Directors and Committees

The Board of Directors relies upon the work of the Appointments and Governance Committee in order to propose to the General Meeting, any new appointment or renewal of the terms of office of Directors. New independent Directors are appointed according to the steps described below (summarized in the internal regulations of the Board of Directors):

PROFILE	APPLICATIONS	SELECTION	DECISION
<p>Definition of the profile sought by the Appointments and Governance Committee with regard to:</p> <ul style="list-style-type: none"> ■ sought-after skills and experience in accordance with the Board's diversity policy; ■ sought-after professional and personal qualities; and ■ gender parity. 	<ul style="list-style-type: none"> ■ Profile searches carried out by the Committee, as the case may be, with the help of a recruitment firm. ■ In-depth study by the Committee of the profiles identified. ■ Establishment of a list of potential candidates. 	<ul style="list-style-type: none"> ■ Discussions within the Committee concerning the candidates: adequacy with the needs identified, verification of the rules of the AFEP/MEDEF Code (multiple offices, independence, etc.). ■ Individual meeting with the Chairman of the Committee, the Chairman of the Board and with each member. ■ Conclusion and recommendation to the Board of Directors. 	<ul style="list-style-type: none"> ■ Approval by the Board of the draft resolution relating to the appointment of the new Director to be submitted to the General Meeting.

The Board of Directors considers that compliance with the criteria included in the diversity policy contributes to the quality of its discussions, and that the diversity of its members, particularly in terms of gender, age, nationality and experience, contributes to optimizing results in terms of environmental and societal sustainability.

In accordance with the criteria defined in the diversity policy set forth above, the Appointments and Governance Committee conducted a search for candidates with an excellent knowledge of the American and Asian markets and, in general, profiles with relevant and complementary experience: financial, CSR, digital and technological skills, experience as leading business executives, etc.

The CSR skill, which is already well represented on the Board, notably by some members who are or have been in senior management positions in large groups, with experience of CSR transformation plans, will be reinforced by the appointment of new members with this skill (see below).

This work led the Committee to recommend that the Board submit to the General Meeting of May 3, 2023 the appointment of four new Directors : Ms Catherine Guillouard, Ms Christina Law, Mr Alexis Perakis-Valat and Mr Michael H. Thaman (see their individual profiles at pages 172 to 175 and the draft resolutions for these appointments at pages 454 to 455). Moreover, in light of Ms Anette Bronder's resignation (see pages 132 to 133 and page 150), the Committee has proposed that the Board of Directors co-opt a female candidate for the remaining period of Ms Anette Bronder's term of office. The Board of Directors thus co-opted Ms Monica de Virgiliis as Director (see Ms Monica de Virgiliis's individual profile at page 176 and the corresponding draft resolution for ratification of this co-option at pages 454 to 455).

The Board ensured that the number of mandates held by the new Directors, which complies with the law, the AFEP/MEDEF Code of Corporate Governance and the internal regulations would allow them to have the required availability to participate actively and diligently to the work of the Board and the Committees. It is specified that in order to take into account the policy of certain investors limiting more strictly the number of offices held in listed companies by non-executive corporate officers, a candidate has taken the necessary measures to reduce the number of her other mandates in listed companies ⁽¹⁾.

If the General Meeting of shareholders adopts the resolutions submitted to it, five new independent Directors will have seats on the Board of Directors at the close of that Meeting (for further information on the independence of the candidates, see paragraph 3.2, on pages 139 to 142 of this Document).

3.2. INDEPENDENCE OF BOARD MEMBERS

Based on the full definition of independence set out in the AFEP/MEDEF Code of Corporate Governance, the internal regulations define the criteria applied within the Company to assess the **independence** of a Board member.

"A member of the Board of Directors is independent when he/she has no relationship of any kind with the Company, its Group or its management which may interfere with his/her freedom to exercise his/her judgment.

In this spirit, the criteria which may provide guidance to the Board in order to classify a member as independent will be as follows:

- he/she is not and has never been an employee or member of the Executive Management of the Company;
- he/she does not hold office as Chairman of the Board of Directors, Chief Executive Officer, Chairman or member of the Management Board of a company in which the Chairman of the Board of Directors, the Chief Executive Officer or a Senior Executive Vice President of Air Liquide is a Director or member of the Supervisory Board;
- he/she must not have any business relations with the Air Liquide Group which represent a significant part of the business activities of (i) the company of which the Director is a member of the Executive Management or (ii) Air Liquide;
- he/she does not have any close family links with the Chief Executive Officer or a Senior Executive Vice President;
- he/she must not have been an auditor of the Company during the previous five years;
- he/she must not have been a member of the Board of Directors (or Supervisory Board) of the Company for more than 12 years."

⁽¹⁾ Ms Monica de Virgiliis, who is Chairwoman of SNAM and whose nomination as Director of Georg Fischer will be proposed on April 2023, thus announced that she would not seek the renewal of her term of office as a member of the Supervisory Board of ASM when it expires in May 2024 (see individual profile p. 176).

NB : It is reminded, for all purposes, that Ms. Catherine Guillouard, who is Director and Chairwoman of the Audit Committee of Airbus (as well as Chairwoman of Ingenico, a now unlisted company) will have only one other mandate in a listed company on May 3, 2023 (as she will step down from her mandate as member of the Supervisory Board of KPN on April 2023) (see individual profile p. 172).

Every year, an assessment of the independence of the Directors appointed by the General Meeting and, as the case may be, of the candidates for such a position is included on the agenda of the Board. In reliance on the work of the Appointments and Governance Committee, the Board of Directors reviews each of the criteria contained in the Board's internal regulations and in the AFEP/MEDEF Code for assessing the independence of each Director.

The Air Liquide Group is particularly attentive to conflicts of interest and even potential conflicts of interest. To determine whether or not the business relationship is material, for each Director or candidate for these positions, criteria such as the following are examined:

- the percentage of worldwide business volumes between the Air Liquide Group and each group in which an Air Liquide Director (or candidate for the position of Director) holds a corporate office or a management position. The percentage of business volume is assessed for both the Air Liquide Group and each group concerned;
- the economic dependence;
- the exclusivity;
- the participation of the Director in the business relationship.

The Board relies on a summary table of the flows (purchases and sales) that took place during the past fiscal year between the Air Liquide Group and the group within which an Air Liquide Director appointed by the General Meeting (or a candidate proposed for these functions) also holds a corporate office or an executive function – on this point, see the information relating to the positions and functions held by the Directors on pages 160 to 176. Such figures are weighed against the total purchases and sales of each group to measure their significance.

For the 2022 fiscal year, this chart shows that the amounts of sales by the Air Liquide Group to any of the relevant groups or of its purchases from any such groups never exceed 1% of the total sales or purchases by the Air Liquide Group or by any of the relevant groups.

Beyond the quantitative criteria mentioned above, the qualitative review conducted by the Board of Directors led to the conclusion that neither Air Liquide nor the groups concerned are in a relationship of economic dependence or exclusivity, as these are large international groups with very diversified activities.

In addition, in light of the highly decentralized organization of the Air Liquide Group, its size, the diversity of its businesses, which are, for the most part, extremely local, and its broad geographical presence, the relevant Directors do not become involved in business relations which are conducted, within the Air Liquide Group, entirely by the managers of the relevant hubs, clusters (groups of countries/entities) and countries. After a review of each individual situation, the Board concluded that none of the Directors has to exercise a direct or indirect decision-making power in the contractual negotiations leading to the business affairs discussed. If this were not the case, he/she would have to declare a conflict of interest to the Board. This matter would then be addressed in accordance with the ethical rules provided for in the internal regulations.

As a result of the review carried out, it was concluded that no group in which a Director of Air Liquide (or a candidate for such a position) holds a corporate office or a management position has a significant business relationship with the Air Liquide Group.

Governance – Composition, functioning and work of the Board of Directors and Committees

The review by the Board of Directors of the individual situation of each Director in light of the criteria required by the AFEP/MEDEF Code for independent status is shown in the following table (situation on December 31, 2022):

AFEP/MEDEF Criteria	Benoît Potier (C. BoD)	François Jackow (CEO)	Xavier Huillard (LD)	Geneviève Berger	Anette Bronder	Bertrand Dumazy	Aiman Ezzat	Siân Herbert-Jones	Kim Ann Mink	Annette Winkler	Philippe Dubrulle (Director representing the employees)	Fatima Tighlaline (Director representing the employees)
Criterion 1 Employee Executive Officer within the previous 5 years	x	x	✓	✓	✓	✓	✓	✓	✓	✓	N/A	N/A
Criterion 2 Cross-directorships	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	N/A	N/A
Criterion 3 Significant business relations	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	N/A	N/A
Criterion 4 Family ties	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	N/A	N/A
Criterion 5 Not to have been an auditor of the Company within the previous 5 years	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	N/A	N/A
Criterion 6 Term of office in excess of 12 years	x	✓	✓	✓	✓	✓	✓	✓	✓	✓	N/A	N/A
Criterion 7 Status of non-executive company officer and Director	✓	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Criterion 8 Major shareholder status	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

The Board also reviewed the situation of each Director in light of each of the criteria in the internal regulations as set forth above (page 139 of this Universal Registration Document). The criteria used are very largely inspired by the AFEP/MEDEF Code of Corporate Governance. The Board continues to consider, however, that the Company's former employees or officers **cannot be deemed to be independent even if they ceased to hold office more than five years ago**.

Further to the recommendation made by the French financial market authority, a table showing the list of Directors in 2022 who are considered to be independent in light of the criterion provided for in the internal regulations and the AFEP/MEDEF Code is set out below.

	As of December 31, 2022	
	Internal regulations	AFEP/MEDEF Code
Benoît Potier – Chairman of the Board of Directors	No	No
François Jackow – Chief Executive Officer	No	No
Xavier Huillard – Lead Director	Yes	Yes
Geneviève Berger	Yes	Yes
Anette Bronder	Yes	Yes
Bertrand Dumazy	Yes	Yes
Aiman Ezzat	Yes	Yes
Siân Herbert-Jones	Yes	Yes
Kim Ann Mink	Yes	Yes
Annette Winkler	Yes	Yes
Philippe Dubrulle – Director representing the employees	N/A	N/A
Fatima Tighlaline – Director representing the employees	N/A	N/A

The Board thus found that, at the end of the 2022 fiscal year, the following members elected by the General Meeting were independent: Ms Geneviève Berger, Ms Anette Bronder, Mr Bertrand Dumazy, Mr Aiman Ezzat, Ms Siân Herbert-Jones, Mr Xavier Huillard, Ms Kim Ann Mink and Ms Annette Winkler (i.e. 80% independent Directors). Pursuant to the provisions of the AFEP/MEDEF Code, Mr Philippe Dubrulle and Ms Fatima Tighlaline, Directors representing the employees, were not taken into account when calculating this ratio.

Given the new composition of the Board of Directors following the Combined General Meeting of May 3, 2023, and subject to the approval of the proposed resolutions concerning new Directors, all qualified as independent by the Board of Directors, the percentage of Independent Directors on the Board of Directors would be 83%.

The information required by the AFEP/MEDEF Code concerning the level of individual attendance of the members of the Board of Directors is shown in the following table:

	Board of Directors	Audit and Accounts Committee	Appointments and Governance Committee	Remuneration Committee	Environment and Society Committee
Benoît Potier Chairman of the Board of Directors	100%	—	—	—	—
François Jackow ^(a) Chief Executive Officer (CEO)	100%	—	—	—	—
Xavier Huillard Lead Director (since May 4, 2022)	100%	—	100%	100%	—
Jean-Paul Agon ^(b) (Lead Director until May 4, 2022)	100%	—	100%	100%	—
Geneviève Berger	100%	—	—	—	100%
Anette Bronder	100%	100%	—	—	—
Bertrand Dumazy ^(c)	100%	—	100%	—	—
Aiman Ezzat ^(d)	100%	100%	—	—	—
Siân Herbert-Jones	100%	100%	—	—	—
Sin Leng Low ^(e)	100%	100%	—	—	—
Kim Ann Mink	100%	—	—	100%	—
Annette Winkler	100%	—	100%	—	100%
Philippe Dubrulle Director representing the employees	100%	—	—	—	100%
Fatima Tighlaline ^(f) Director representing the employees	100%	—	—	100%	—
TOTAL	100%	100%	100%	100%	100%

(a) Mr François Jackow attended meetings of the Board of Directors from May 2022 (following his appointment as a Director).

(b) Mr Jean-Paul Agon attended meetings of the Board of Directors, the Appointments and Governance Committee and the Remuneration Committee until May 2022 (the end of his term of office as Director).

(c) Mr Bertrand Dumazy attended meetings of the Appointments and Governance Committee from May 2022 (following his appointment as a member of this Committee by the Board of Directors).

(d) Mr Aiman Ezzat attended meetings of the Audit and Accounts Committee from May 2022 (following his appointment as a member of this Committee by the Board of Directors).

(e) Ms Sin Leng Low attended meetings of the Board of Directors and the Audit and Accounts Committee until May 2022 (end of her term of office as Director).

(f) Ms Fatima Tighlaline attended meetings of the Remuneration Committee from May 2022 (following her appointment as a member of this Committee by the Board of Directors).

Each Director shall keep him/herself informed and devote the time and attention required to perform his/her duties.

3.3. PROFESSIONAL ETHICS OF DIRECTORS – RIGHTS AND OBLIGATIONS OF DIRECTORS

The internal regulations summarize the main obligations imposed on Directors. The Director represents all the shareholders and shall act in all circumstances in the Company's corporate interest.

Each Director undertakes to meet the obligations imposed upon him/her by the articles of association and the various legal, regulatory or internal Company provisions and, more specifically, the internal rules relating to the prevention of market abuse or the obligations to report transactions in the Company's shares. Each Director is bound by an obligation of secrecy. The members of the Audit Committee are, in particular, bound by an obligation of confidentiality concerning the information relating to the services performed by the Statutory Auditors, in accordance with the legal conditions. Each Director shall endeavor to take part in all meetings of the Board and the Committees of which he/she is a member, and attend the General Meetings.

Governance – Composition, functioning and work of the Board of Directors and Committees

Under the Company's articles of association, each Director must hold at least 500 registered shares in the Company. The Director shall inform the Company of the number of shares which he/she holds. This provision does not apply to the Directors representing the employees.

Under the internal regulations:

"The members of the Board of Directors must inform the Board of any situation of conflict of interest, even if it is only potential, with the Company and must refrain from taking part in the discussions and in the vote on the corresponding decision."

This obligation is completed by a formal annual declaration provided to the Company by each Director, attesting the absence of a potential conflict of interest involving him/her.

Declarations

Pursuant to the declarations made to the Company by each corporate officer, the Company confirms that the corporate officers have no family ties with any other corporate officer and have not been convicted of fraud at any point during the last five years.

No official charge and/or public sanction has been pronounced against them by the statutory or regulatory authorities (including any professional bodies) and they have not been barred by a court from serving as a member of a Supervisory Board, Board of Directors or other management body of an issuer or from taking

3.4. LEAD DIRECTOR

Pursuant to the terms of article 13 of the articles of association, the Board of Directors is obliged to appoint a Lead Director, as long as the roles of Chairman and Chief Executive Officer are combined. In the event of separation of the functions of Chairman of the Board and Chief Executive Officer, the Board of Directors may also appoint a Lead Director from among the independent members of the Appointments and Governance Committee. The Lead Director remains in office until the end of his or her term of office on the Appointments and Governance Committee.

part in the management or conduct of an issuer's business affairs at any point during the last five years. They have no conflicts or potential conflicts of interest with regard to L'Air Liquide S.A.

No arrangement or agreement has been entered into with the major Shareholders, customers, suppliers or other persons, pursuant to which L'Air Liquide S.A.'s corporate officers were selected as such. Such persons have not agreed any restriction on the transfer, within a certain period of time, of their holding in the capital of L'Air Liquide S.A. apart from the rules relating to the prevention of market abuse, the statutory obligation for the members of the Board of Directors who are elected by the General Meeting to hold at least 500 registered shares in the Company throughout the period of their term of office and the shareholding obligations which apply to the Company Officers.

The corporate officers have not been linked to any bankruptcy, receivership or liquidation at any point during the last five years.

Finally, the Appointments and Governance Committee, under the management of the Lead Director, currently has the task of preventing potential situations of conflict of interest on the Board.

As every year, an internal memo on the prevention of market abuse was sent to the Directors at the beginning of 2023 which outlines in greater detail the applicable legal and regulatory obligations by which they are bound pursuant to the European and national provisions.

All the provisions governing Directors' rights and obligations are included in the manual for members of the Board of Directors which is updated once a year.

The term of office of Mr Jean-Paul Agon expired at the end of the General Meeting of May 4, 2022. On the recommendation of the Appointments and Governance Committee, at the close of this Meeting, the Board of Directors appointed Mr Xavier Huillard, independent Director, as the new Lead Director. The continuation of this mandate was confirmed as part of the entry into force of the new governance with separation of duties as of June 1, 2022.

3.4.1. Roles, responsibilities and powers of the Lead Director

The internal regulations of the Board of Directors:

A) define the responsibilities and powers of the Lead Director as follows:

“Roles, responsibilities and powers of the Lead Director

The Lead Director has the following roles, responsibilities and powers:

1. He conducts, upon delegation from the Chairman of the Appointments and Governance Committee when he is not the Committee Chairman himself, the work of the Appointments and Governance Committee concerning the governance tasks entrusted to the Committee, notably for the examination of the choice of general management organization, the review of changes in and application of the rules of Corporate Governance, the preparation of the evaluation of the functioning of the Board, the review of ethical issues, the attention paid to the proper functioning of the governance bodies, in particular in the transmission of the information requested by Independent Directors; on all these points, the Lead Director can formulate all proposals and make any suggestions he considers necessary.

More specifically, the Lead Director coordinates, within the Committee, the implementation of the procedures aimed at identifying and analyzing potential situations of conflicts of interest on the Board; he draws the attention of the Chairman of the Board of Directors (or the Chairman and Chief Executive Officer, as appropriate) to potential situations of conflicts of interest identified in this manner.

He reports on these matters to the Board of Directors.

2. The Lead Director, after receiving the opinion of the Appointments and Governance Committee, may ask the Chairman of the Board of Directors to convene a meeting of the Board of Directors on any specified agenda, at any time and as often as required in the interests of the Company.

Under the conditions provided for in article IV of these regulations, the Lead Director may also receive a delegation of authority to convene a meeting of the Board of Directors at the request of at least one-third of its members.

3. The Lead Director, after receiving the opinion of the Appointments and Governance Committee, may propose the inclusion of additional points on the agenda for any Board meeting to the Chairman of the Board of Directors.
4. Once a year, the Lead Director calls a meeting of the members of the Board of Directors for a session to be held without the presence of the Group's Executive Directors (or former Executive Directors) or internal Directors and employee representatives. He organizes and leads the discussions of this annual session which he chairs.
5. The Lead Director reviews the requests made by shareholders with regard to governance and makes sure that they are answered.
6. The Lead Director reports on his activities to the Board of Directors every year.
7. The Lead Director makes sure that a report is made to the shareholders on the governance issues falling within the scope of his responsibilities. A report on his activities is made in the Universal Registration Document.”

B) also provide, without prejudice to the provisions on convening the Board of Directors, which are set forth in the internal regulations of the Board of Directors, that the Lead Director, after receiving the opinion of the Appointments and Governance Committee, may ask the Chairman of the Board of Directors to convene the Board of Directors on a given agenda; this right may be exercised at any time and as often as the Company's interests may require. The Chairman of the Board of Directors is bound by this request.

In order to further enhance the dialogue with the main shareholders, they have the opportunity, on request, to meet with the Lead Director.

The Lead Director may be approached by the other Directors outside of Board of Directors' meetings as often as they deem necessary and the Directors are regularly asked about the level of dialogue with the Lead Director.

3.4.2. Report on the activity of the Lead Director

Mr Xavier Huillard has been a Lead Director since May 4, 2022. He succeeded Jean-Paul Agon, who held these positions until that date.

The Lead Director's activities during the fiscal year related to the following points:

- The Lead Director conducted the work of the Appointments and Governance Committee concerning the governance tasks entrusted to the Committee and in particular:
 - the finalization of work related to the succession of the Executive Officer;

- a review of the Company's practices in light of the recommendations of the AFEP/MEDEF Code, the French financial market authority and the Haut Comité de gouvernement d'entreprise, included in their respective 2022 reports;
 - the selection of the external service provider for the assessment of the Board of Directors at the end of the 2022 fiscal year and then the presentation to the Board in February 2023 of the summary of the Board members' assessments made on the functioning of the Board (For more details on the evaluation, see page 148);
 - informing the Board of Directors on the regular contacts between the Chairman of the Board of Directors and/or the Chief Executive Officer and Shareholders;
 - the Lead Director chaired the Board of Directors' session which was held at the end of the Board meeting in November 2022 and was attended by all the Directors apart from the Group's Executive or internal Directors and employee representatives. The Lead Director held discussions with the Chairman of the Board of Directors on the matters raised during this executive session – for more details on the executive session, see page 148;
 - the Lead Director met on a regular basis with the Chairman of the Board of Directors and the Directors, in particular on governance issues;
 - the Lead Director reviewed the expectations expressed by the Shareholders at the General Meeting on May 4, 2022. The Lead Director took note of the conclusions of the meetings organized at the end of 2022 with numerous institutional investors to prepare for the General Meeting on May 3, 2023.
- He reported to the Board on his activities in February 2023.

Governance – Composition, functioning and work of the Board of Directors and Committees

During the 2022 fiscal year, the Lead Director, in the person of Mr Jean-Paul Agon for the period from January 1 to May 4, 2022 and in the person of Mr Xavier Huillard for the period from May 4 to December 31, 2022, attended all meetings of the Board (six

meetings), the Appointments and Governance Committee (six meetings) and the Remuneration Committee (three meetings), as well as the meeting of the Working Group "Shareholder Relations".

4. Role and tasks of the Board of Directors

The Board of Directors **determines the orientations of the Company's activities and ensures their implementation, in line with its corporate interest, by taking into account the social and environmental stakes of its activity.** Accordingly, it examines and approves, based on proposals from the Company's Executive Management, the **main points of the Group's strategy** (in principle between three and five year objectives), **including the multi-annual points of strategy concerning corporate social responsibility.** It ensures the implementation of these orientations by the Executive Management.

The Board of Directors regularly reviews, in connection with the strategy which it has defined, opportunities and the financial, legal, operational, social and environmental risks, together with the measures taken accordingly. It ensures that a system has been implemented for the prevention and detection of corruption and influence peddling.

Subject to the powers attributed to the General Meetings and within the limit of the corporate purpose, the Board deals with any issue concerning the smooth running of the Company and manages corporate business pursuant to its decisions. The internal regulations stipulate that the specific powers vested in the Board of Directors include, in particular, the choice of Company Officers, the determination of their remuneration and setting of the terms and conditions governing their employment and performance of their duties in accordance with current regulations; the appointment of the Lead Director; the convening of the General Meeting (and determination of the agenda and draft resolutions within this scope); the preparation of the financial statements and Annual Management Report (including the Extra-financial Performance Declaration and the Vigilance Plan) and the Corporate Governance report; the definition of the Group's gender policy in leaderships; establishing its proper rules for functioning (formation of Committees, breakdown of Directors' annual remuneration, and more). In addition, the Board of Directors may also decide or authorize simple bond issues.

The Board also exercises the powers delegated to it by the General Meeting, particularly with regard to the granting of stock options or award of performance shares, issues of marketable securities, share buyback or employee savings programs.

The Board of Directors ensures that the Executive Management implements a non-discrimination and diversity policy, notably concerning balanced gender representation within the Group's leaderships. Acting on a proposal by Executive Management, the Board sets the diversity targets for the Group's leaderships. Executive Management makes a submission to the Board on how the targets will be implemented, together with an action plan and schedule for completion. Executive Management reports its results to the Board every year.

In this context, the Board of Directors, at its meeting in February 2023, on the recommendation of the Appointments and Governance Committee, noted the progress made in 2022 in connection with the targets for 2025, namely 35% women at the managers and professionals level and 25% of executive positions (senior executives) held by women. At this meeting, the Board of Directors also noted the changes made in 2022 within the framework of the objectives set for the Executive Committee for 2026. These objectives, which are incorporated into the non-discrimination and diversity policy, are set out in detail on pages 351, 352 and 400 of this Universal Registration Document and are supplemented by information relating to the manner in which the Company tries to obtain a balanced representation of women and men on this Committee. The results concerning the gender mix with regard to the 10% of positions which carry the most responsibility can also be found on pages 351 and 400.

5. Functioning of the Board of Directors

Informing the Directors: the internal regulations define the methods for informing the Directors. They specify, in particular, that prior to Board meetings, a file of meeting documentation is sent out to Board members covering the items on the agenda. Files are provided in electronic form on a dedicated platform. The Chief Executive Officer (or the Chairman and Chief Executive Officer, where appropriate), assisted, if need be, by members of the management teams, presents to the Board of Directors a quarterly report on the Company's management, the draft annual and interim financial statements and the various issues requiring the Board's authorization or opinion. For major substantive issues (major projects, M&A...), a very detailed summary is prepared. Any member of the Board of Directors may request any additional information he/she considers necessary. He/she makes such a request to the Chairman of the Board.

Interactions between the non-Executive Directors and the members of the Executive Committee are regular and take place during specific presentations made at meetings of the Board of Directors, particularly during the meetings on strategy or during Committee meetings, as well as outside of these meetings. They also meet with them during training sessions on the activities for which the members of the Executive Committee are responsible.

The Directors may ask to meet members of the Executive Committee at any time.

Conduct of meetings: the internal regulations define the frequency of meetings and the rules for convening meetings and for participation by video-conference or telecommunications. They provide, in particular, for the Lead Director's right to ask for a meeting of the Board of Directors to be convened with any specified agenda and also for the conditions of the executive session attended by the members of the Board of Directors without the presence of the Group's Executive Directors (or former Executive Directors) or internal Directors and employee representatives, chaired by the Lead Director. The Statutory Auditors are also heard during the meetings to review the financial statements.

During the meeting, a summary presentation of the items is then made, allowing considerable time for exchanges and discussions. The presentations give rise to questions and are followed by discussions. A round-the-table discussion is systematically held concerning the significant points, before moving to vote on the items on the agenda. Detailed written minutes are then sent to the members for their review and comments, before the approval of the Board of Directors at its next meeting.

In accordance with the provisions of article 14 of the articles of association, the Board of Directors, upon notice from the Chairman of the Board of Directors, may take certain decisions by written consultation of the Directors under the conditions provided for by the regulations in force.

Creation of Committees: the internal regulations define the tasks and operating procedures for the four Board Committees (a description of the missions of the Committees' tasks is provided on pages 152, 155, 157 and 158).

Training measures: the internal regulations stipulate that training measures are offered to the Directors relating to the Company's businesses and specific features, in particular by means of site visits or meetings with senior executives, and to the Company's Corporate Social Responsibility challenges (in particular concerning climate issues). In particular, training on the Group's accounting, financial, extra-financial and operational aspects, as well as training on aspects related to the Group's risks, are offered to members of the Audit and Accounts Committee.

Each year, the Directors are asked about their training requirements and a training request form is systematically proposed once a year to each Director. It consists of proposals for meetings with the heads of each of the major business lines and main central functions, and site visits. A form is also systematically proposed to new Directors, which is used to draw up a training program adapted to the skills and individual experience of each new Director.

Within this framework, the Directors may ask to meet Executive Committee members or ask for specific training for each business line, activity or geographical zone.

In 2022, Directors received training on topics related especially to finance, General Control, Healthcare / Europe Industry business lines, including a particular point concerning Digital in Healthcare, Industrial Merchant at Airgas in the United States, hydrogen, and on strategy, with the relevant Executive Committee members respectively. A presentation on "Asia" was also made for certain Directors.

Moreover, a **specific training** course on the latest changes in **CSR** regulations and their impact on Directors' responsibilities, presented by two external contributors, was attended by the members during the fourth quarter 2022. During this meeting, the new obligations were presented, particularly in terms of CSR reporting (regulatory framework, challenges and outlook), as well as the missions and responsibilities of the Board of Directors, the Audit Committee and the Committee in charge of CSR aspects. At the end of the presentations, time was devoted to discussions in a questions and answers session. In addition, as part of the training offered to Directors, specific CSR training is followed each year by Directors who so request with the member of the Executive Committee or the Business Head in charge. The CSR aspect is also systematically addressed, from an operational point of view, as part of training for the Group's various business lines.

The Directors representing the employees may receive training relating to their rights and obligations as Directors, in accordance with the applicable regulations. This time is considered as actual working time and remunerated as such.

The breakdown of the trainings carried out in 2022 by the two Directors representing the employees is stated on page 147 below.

6. Participation of employee representatives on the Board of Directors

6.1. WITH A DELIBERATIVE VOTE

Two Directors representing the employees sit on the Board of Directors: Mr Philippe Dubrulle, who is also a member of the Environment and Society Committee, and Ms Fatima Tighlaline, who is also a member of the Remuneration Committee.

- Mr Philippe Dubrulle was appointed in 2014 as Director representing the employees by the Group committee in France, and was renewed in this quality on December 6, 2017. His term of office expired at the end of the General Meeting of May 2022. At its plenary meeting on December 16, 2021, the Group committee in France, in charge of appointing a Director representing the employees pursuant to the articles of association when the number of Directors (calculated according to article L. 225-27-1-II of the French Commercial Code) is below or equal to eight, renewed Mr Philippe Dubrulle for a period of four years which will expire at the end of the General Meeting called in 2026 to approve the 2025 financial statements.

Pursuant to the applicable regulations at the time of his appointment, on the recommendation of the Appointments and Governance Committee, the Board of Directors had defined the amount of time allocated to Mr Philippe Dubrulle for the preparation of meetings of the Board of Directors and the Committees, and the training. Within this framework, in 2016, Mr Philippe Dubrulle had followed the training course provided by Sciences Po in partnership with the IFA and obtained the Company Director's certificate.

In his capacity as a member of the Environment and Society Committee (since its creation in 2017), in addition to the training provided internally by the member of the Executive Committee in charge of CSR aspects, in 2020 Mr Philippe Dubrulle attended a training on sustainability business models, organized by Centrale Supelec Exed.

In 2022, Mr Philippe Dubrulle took part in the training session organized on the Healthcare / Europe Industry business unit. Individual discussions were also organized on HR and strategy topics.

Asked about his training intentions in 2022, he indicated that he wanted to subscribe to a magazine of current CSR topics this year in order to regularly update his knowledge and monitor developments on these topics on which he had already followed the in-depth training described above.

- On October 1, 2020, the European Works Council appointed Ms Fatima Tighlaline as Director representing the employees. She has also been a member of the Remuneration Committee since May 2022.

Since her appointment, in accordance with the provisions of the PACTE Law and the Company's articles of association, Ms Fatima Tighlaline has participated in training sessions organized with members of the Executive Committee on specific areas. Ms Fatima Tighlaline also completed training in 2021 provided by Sciences Po, in partnership with the IFA, and obtained the Company Director's certificate.

In 2022, she notably attended a financial training course provided by Air Liquide University and as part of training on operational activities, took part in the training session organized on the Healthcare / Europe Industry business line.

Moreover, in 2022, Ms Fatima Tighlaline and Mr Philippe Dubrulle completed the "CSR regulations and Directors' responsibility" training course attended by all members of the Board of Directors – see details of this training in section 5 – page 146.

The Board of Directors, in compliance with the PACTE Law and the agreement concluded between the various stakeholders on December 10, 2021, defined the amount of time allocated to the Directors representing the employees for (i) the preparation of meetings of the Board of Directors (15 hours/meeting) and of the Committees which they are member of (5 hours/meeting) as well as (ii) training (40 hours/year on a cumulative basis over the length of the term of office).

Mr Philippe Dubrulle and Ms Fatima Tighlaline sit on the Board with a deliberative vote. They are subject to all of the provisions of the internal regulations governing the rights and obligations of the Directors.

Within the scope of the agreement entered into with the various stakeholders and pursuant to the provisions in force within the Group, which apply to all the employees performing duties on Boards of Directors of the Group companies, it was agreed that employee Directors would not receive any remuneration.

6.2. WITH AN ADVISORY VOTE

Since the appointment in October 2020 of Ms Fatima Tighlaline as the second Director representing the employees, and under the agreement entered into with the various stakeholders, a sole member of the Social and Economic Council continues to attend Board of Directors' meetings with an advisory vote.

The delegate receives the same documents as those provided to the Directors for these meetings. The delegate is able to express his opinion on the questions discussed during the meetings.

A preparatory meeting, in the presence of a member of the Executive Committee and the Secretary of the Board of Directors, is scheduled before each Board meeting. This preparatory meeting is the opportunity to go through the whole file for the Board meeting with the Directors representing the employees and the Social and Economic Council delegate and to comment on the items on the agenda. It offers the participants the opportunity to raise their questions and make their initial comments.

7. Evaluation of the Board of Directors

The internal regulations stipulate that:

“The Board will ensure that an evaluation is carried out periodically of its composition, its organization and its functioning as well as those of its Committees. An update will be made by the Board on this topic once a year and a formal evaluation will be carried out at least every three years. Within the scope of the evaluation of the Board, the Directors will, in particular, be asked to state whether it appears to them to be necessary for the choice of the Company’s general management organization to be re-examined.”

An evaluation of the functioning of the Board of Directors is carried out every year, alternating, one year, between a full appraisal questionnaire leading to a summary showing the replies and the adoption of recommendations for action and, the next year, a questionnaire aimed at making an assessment of the actions implemented in light of the recommendations made.

During the evaluation conducted at the end of 2021, the members had expressed their satisfaction with the actions carried out, in particular the governance work surrounding the succession process for the Executive Management, the quality of dialogue with the management team as well as with the Lead Director, and the quality of discussions within the Board and the Committees. Points envisaged related in particular to the future recruitments of an Asian member and an additional American member to the Board, continuing to increase meetings with the Executive Committee and top management (notably when presentations are made to the Board), and the organization, when circumstances allow, of new “deep dive” sessions on topical issues (such as took place at the September 2020 meeting which focused on hydrogen), as well as site visits. In 2022, the Appointments and Governance Committee stepped up its efforts to recruit new directors. Following this work, the appointment of an Asian candidate and an American candidate are proposed to the General Meeting of May 3, 2023. The presentations during the Board meetings in the second half of the year (focusing in particular on the strategy, the new company program, hydrogen, progress made in achieving the Group’s ESG objectives, and human resources) were made by the members of the Executive Committee and the managers in charge of these subjects and enabled rich discussions with the Board. An on-site Board meeting will be scheduled for a next fiscal year.

The Board of Directors decided to periodically call on an external consultant to assist in conducting these evaluations. **A full evaluation of the functioning of the Board of Directors and its Committees was carried out in 2022 with the help of an external service provider. In this regard, a full evaluation questionnaire was submitted to the members of the Board of Directors and individual interviews were held with this service provider.**

The summary of responses to this full questionnaire, presented to the Board by the Appointments and Governance Committee Chair, at the start of 2023, reveals a very positive overall perception of the functioning of the Board and the Committees. The members were unanimous in their praise for the quality of the Executive Management succession process, and consider that the new separate governance mode is working very well. They commend the smooth relationship enjoyed by the Board with both the Executive Management and the Executive Committee. Finally, they emphasize the quality of the Environment and Society Committee’s work and consider that CSR is very well integrated into the Group’s global strategy. With regard to their expectations and future challenges, they stress the importance of regular updates with the Chief Executive Officer on the implementation of the strategic objectives, at the strategy meeting in the second half of the year, which could be the subject of an on-site meeting with a “deep dive” into one of the Group’s activities. They also wish to continue to make in-depth presentations, during Board strategy sessions, on current topics of relevance to the Group’s business. Concerning the composition of the Board, the members stress how important it is to reinforce its international element (notably given the importance of American and Asian markets for the Group) and to continue to attract the most relevant business and cross-functional skills, in view of the challenges facing the Group.

In light of the collegiate nature of the Board, the assessment questionnaire concentrates on the collective contribution of members to the Board operation. However, the questionnaire invites the Director to make an evaluation of the actual, individual contribution of Directors in the reflections of the Board of Directors. The contribution by each Director is assessed, furthermore, by the Appointments and Governance Committee and then by the Board of Directors at the time of renewal of the terms of office of Directors and Committee members.

8. Meeting of the Board of Directors without the presence of the executive corporate officers

Pursuant to the provisions of the AFEP/MEDEF Code which recommend that at least one meeting per year is organized without the presence of the Executive Officers, the internal regulations stipulate that:

“Once a year, the Lead Director calls a meeting of the members of the Board of Directors for a session to be held without the presence of the Group’s Executive Directors (or former Executive Directors) or internal Directors and employee representatives. He organizes and leads the discussions of this annual session which he chairs.”

The executive session is held at the close of a Board of Directors meeting for practical purposes and availability of members. In 2022, and in accordance with previous years, the executive session took place following the Board of Directors’ meeting in November. During this session, members were able to review the work carried out over the entire fiscal year, as well as the implementation of the new governance.

9. The Board of Directors' work in 2022

In 2022, the Board of Directors met six times with an effective attendance rate or telephone attendance rate of 100% of its members.

The Board's activities related to the following issues:

9.1. DAY-TO-DAY MANAGEMENT OF THE GROUP

Monitoring of the Group's day-to-day management is carried out particularly by:

- regularly reviewing the **progress of business**, quarterly activity reports, the annual and interim parent company and Consolidated financial statements in the presence of the Statutory Auditors, which are used to determine the dividend distribution policy;
- reviewing the Group's **financial situation** regularly, and more specifically: financing and debt management strategy and monitoring of the bond program; reviewing forward-planning documents;
- **analyzing performance**, particularly as part of (i) the regular review of the Group's financial and extra-financial performance, including a detailed review of extra-financial indicators and their changes, (ii) the monitoring of the Group's efficiency program (iii) the attention paid to improving the Group's operating margin;
- reviewing the **risk mapping** and its developments; monitoring of risk management and prevention systems (industrial, environmental and societal risks, digital/cybersecurity risks, risks related to supplies and to human resources management, financial risks, etc.) including a more in-depth review of certain risks based on the work of the Audit and Accounts Committee and the Environment and Society Committee, and reviewing of challenges and opportunities;
- ensuring **compliance** tracking and review of the systems implemented for the prevention and detection of corruption and influence peddling, based on the work of the Audit and Accounts Committee;
- reviewing the minutes of the meetings of the four **Committees** (including the minutes of the joint session between the members of the Audit and Accounts Committee and the members of the Environment and Society Committee);
- regularly reviewing **investments** and the portfolio of opportunities including systematic monitoring of **investments related to the energy transition in connection with the environmental objectives announced by the Group**; decisions involving investments required for the Group's medium-term development, taking into consideration the social and environmental challenges and corresponding financing resources;
- **portfolio review** decisions;
- the share buyback and cancellation policy and monitoring operations in connection with the Company's share buyback program;
- the decision on the distribution to Shareholders of one **bonus share** for 10 existing shares in June 2022 following the vote by the General Meeting of May 4, 2022 on a resolution authorizing the increase in the Company's share capital by incorporation of additional paid-in capital, reserves, profits or other amounts;
- the award of performance shares;
- reviewing, at each meeting, the monitoring of **acquisitions, sales and major projects in progress**, taking into account the environmental and societal challenges of the planned operations; reviewing major **renewable power sourcing** contracts as part of the implementation of the Group's **climate commitments**;

- preparing the Annual General Meeting and the Universal Registration Document (calling the General Meeting, agenda, draft resolutions, Annual Management Report, Report on Corporate Governance, Extra-financial Performance Declaration and Vigilance Plan, and other reports or sections contained in the Universal Registration Document, which are prepared or approved by the Board of Directors; answers to Shareholders' written questions);
- Human Resources issues: monitoring the professional gender equality policy within the company; non-discrimination and diversity policy within governing bodies; reviewing the system for assessing the gender pay gap provided for by the law of September 5, 2018; reviewing the social balance sheet;
- the annual review of ongoing regulated agreements within the Company and review of the Audit and Accounts Committee's report on the monitoring conducted during the previous fiscal year following implementation of the appraisal procedure in respect of transactions in the ordinary course of business entered into on arm's length terms;
- on the recommendation of the Audit and Accounts Committee, proposals to be submitted to the General Meeting to (i) appoint KPMG as the new Principal Statutory Auditor to replace Ernst & Young et Autres, (ii) the renewal of PricewaterhouseCoopers Audit as Principal Statutory Auditor and (iii) the non-renewal of the Deputy Statutory Auditors.

9.2. GROUP STRATEGY AND MAIN ORIENTATIONS

Following presentations made in particular by Executive Management and certain senior executives, the Board of Directors closely considered the following in 2022:

- i. the review of the new ADVANCE strategic plan presented at the Capital Market Day on March 22, 2022; monitoring, during the year, of actions initiated and progress made towards the achievement of the financial and extra-financial objectives of the plan;
- ii. review of progress on the Group's **ESG** objectives announced at the Group's Sustainable Development Day in March 2021 and forming an integral part of the ADVANCE Plan; review of the progress of investments in decarbonization projects contributing to the achievement of CO₂ emissions reduction targets, the reporting tools put in place, the governance implemented within the Group; monitoring of the achievements of health-related objectives as well as societal objectives (diversity, Citizen at Work program, etc.);
- iii. progress report on the Group's **Hydrogen** business unit, key changes during the past year (development of industrial partnerships, obtaining subsidies, development of strategic investments and projects);
- iv. monitoring of the active pursuit of **industrial investment** decisions in all business lines, with the energy transition representing more than 40% of the portfolio of opportunities;
- v. review of the geopolitical and macroeconomic situation and the risks generated by the energy price volatility; analysis of the resilience of the Group's business model in this context;

- vi. review of the situation generated by the war in Ukraine and the actions taken to include the interests of the Group's employees and stakeholders; authorization of the Group's planned withdrawal from Russia and the transfer of activities to the local management team in the form of an MBO (Management Buy Out) subject to the approval of the local authorities;
- vii. monitoring of the Group's actions in response to changes in the world of work: implementation of new ways of working; talent development and retention.

9.3. GOVERNANCE / REMUNERATION

Separating the functions of Chief Executive Officer and Chairman of the Board of Directors

The work of the Board of Directors concerning the choice of governance structure of L'Air Liquide S.A., during the 2022 fiscal year, is detailed in section 2, "Governance structure", pages 135 to 138 of this Universal Registration Document.

Composition of the Board and Committees

The Board of Directors, on the recommendation of the Appointments and Governance Committee:

- proposed that the General Meeting of May 4, 2022:
 - appoint Mr François Jackow as a new Director, for a period of four years, and
 - renew the terms of office of Ms Annette Winkler and Mr Benoît Potier for a period of four years, expiring at the close of the said Meeting;
- duly noted the expiry of the terms of office of Mr Jean-Paul Agon and Ms Sin Leng Low as Directors at the close of the General Meeting of May 4, 2022 and their wish not to seek the renewal of their terms of office;
- appointed Mr Xavier Huillard, independent Director, as Lead Director, as of May 4, 2022 and decided to retain the duties of Lead Director within the framework of the separate governance;

- modified the composition of the Committees by appointing Mr Xavier Huillard as Chairman of the Appointments and Governance Committee, Ms Fatima Tighlaline as a member of the Remuneration Committee, Mr Aïman Ezzat as a member of the Audit and Accounts Committee and Mr Bertrand Dumazy as a member of the Appointments and Governance Committee.

As part of the work carried out in preparation for the General Meeting of May 3, 2023, the Board of Directors, on the recommendation of the Appointments and Governance Committee:

- duly noted the resignation of Ms Anette Bronder from her office as Director with effect from January 3, 2023 - This decision was linked to her intention to take up executive office with an audit firm, which was not compatible with maintaining her office as a Director of L'Air Liquide S.A.- and co-opted Ms Monica de Virgiliis as an independent Director for the remaining period of Ms Anette Bronder's term of office;
- duly noted the expiry of the terms of office of Ms Siân Herbert-Jones and Ms Geneviève Berger as Directors at the close of the General Meeting of May 3, 2023 and their wish not to stand for re-election;
- proposed that the General Meeting of May 3, 2023:
 - appoint four new independent Directors, for a term of four years, namely: Ms Catherine Guillouard, Ms Christina Law, Mr Alexis Perakis-Valat and Mr Michael H. Thaman (see candidates individual information sheets pages 172 to 175 the resolutions proposed to the General Meeting pages 455 to 456);
 - ratify the appointment made on a provisional basis by the Board of Directors of Ms Monica de Virgiliis (see candidate individual information sheet page 176 and the resolution proposed to the General Meeting pages 455 to 456);
- decided to review the composition of the Board Committees at the end of this Meeting of May 3, 2023.

In view of such changes in the Board of Directors' composition, the Board of Directors would be composed as follows at the end of the next Meeting:

BOARD OF DIRECTORS post-2023 General Meeting (subject to the adoption of the corresponding resolutions by the General Meeting)

14 members

INDEPENDENT DIRECTORS ^(a)	DIRECTORS REPRESENTING THE EMPLOYEES	PARITY ^(a)	NATIONALITIES
83%	2	42%	5

(a) Directors representing the employees are not taken into account for the calculation of this percentage.

Assessment

Following the external evaluation carried out in 2022, the Board of Directors heard the feedback provided by the Chair of the Appointments and Governance Committee on the Directors' responses. Details of the Board's work relating to the assessment of the functioning of the Board of Directors and its Committees are presented in section 7. "Evaluation of the Board of Directors" on page 148 of this Universal Registration Document.

Independence

The work of the Board of Directors concerning the assessment of the independence of (i) the members of the Board of Directors, (ii) candidates proposed for appointment, and (iii) the Director co-opted by the Board of Directors, are detailed in section 3.2. "Independence of Board members" – pages 139 to 142 of this Universal Registration Document.

Remuneration of Company Officers

The Board of Directors assessed the performance of the Executive Officer for the 2022 fiscal year for each period in question (from January 1 to May 31 and from June 1 to December 31, 2022) and approved the amount of his remuneration in respect of the said fiscal year. It also reviewed the satisfaction of the performance conditions in the 2020 LTI plans, for which the three-year review period expired on December 31, 2022.

The components of remuneration paid in 2022 or awarded to the Company Officers in respect of 2022 are also described in this section. The General Meeting on May 3, 2023 will be invited to vote on these items in specific resolutions ("Say on Pay ex post"). The information mentioned in I of article L. 22-10-9 of the French Commercial Code relating to the remuneration of the Chairman and Chief Executive Officer (from January 1 to May 31, 2022), the Chief Executive Officer and the Chairman of the Board of Directors (from June 1 to December 31, 2022) and Directors are also subject to a vote at the General Meeting.

The Board took note of the work of the Remuneration Committee and determined the remuneration policy for corporate officers (Chief Executive Officer, Chairman of the Board of Directors and Directors). The remuneration policy will be submitted in separate resolutions to Shareholders approval during the General Meeting of May 3, 2023. This policy is described in the section on remuneration set forth below on pages 177 et seq.

Remuneration of the Directors

The Board set the formula for distributing Directors' remuneration among its members for 2022 within the budget authorized by the General Meeting of May 5, 2020 for a maximum amount of 1.3 million euros per fiscal year.

Pursuant to the policy approved by the General Meeting of May 4, 2022, (i) the fixed remuneration allocated to Committee Chairs

has been harmonized, since their functions involve a significantly comparable workload, likewise the amount of the remuneration allocated for attending each Committee meeting and (ii) remote attendance (by video-conference or phone) of Board and Committee meetings is remunerated in the same way as attending in person. In order to take account of the distance for Directors coming from abroad, a fixed amount per trip is added to the variable remuneration for such Directors if attending in person. It is proposed for 2023, to readjust the fixed amount for intercontinental trips in order for the remuneration to remain competitive at the international level (see pages 235 to 236).

Amendment of the internal regulations

In an effort to clarify the structure of the missions carried out respectively by the Audit and Accounts Committee, the Environment and Society Committee and the joint session between these two Committees, the Board of Directors, on the basis of the work carried out by these two Committees, meeting in joint session, decided to amend the internal regulations. These changes were made in particular to specify (i) the interface between the two Committees concerning the way in which environmental and societal risks are reviewed, (ii) the Audit Committee's role concerning the monitoring of procedures relating to the preparation and treatment of extra-financial information (in the same way as for financial information) and (iii) the role of the Environment and Society Committee concerning the review of the extra-financial information itself, including the review of the Extra-financial Performance Declaration that it presents to the Board of Directors.

The internal regulations have also been amended, in order to incorporate the changes to the AFEP/MEDEF Code published in December 2022 and to its Application Guide.

10. The Committees of the Board of Directors

The Board of Directors has set up four Board Committees: the Audit and Accounts Committee, the Appointments and Governance Committee, the Remuneration Committee and the Environment and Society Committee. A review of the composition of the Committees will be carried out by the Board of Directors at the end of the General Meeting of May 3, 2023.

10.1. THE AUDIT AND ACCOUNTS COMMITTEE

4 MEETINGS IN 2022	3	100%
100% ATTENDANCE	MEMBERS	INDEPENDENCE
Members as of 12/31/2022	Individual attendance rate in 2022	
Siân Herbert-Jones (Chairwoman)	100%	
Anette Bronder*	100%	
Aiman Ezzat	100%	

* Ms Anette Bronder resigned from her position as Director with effect from January 3, 2023.

The Committee members combine experience in business management, financial and digital skills (see professional careers in the Directors' individual information sheets on pages 160 et seq.).

A qualified chartered accountant who worked in an audit firm for 13 years (PwC), Ms Siân Herbert-Jones joined the Sodexo group in 1995, where she was Group Chief Financial Officer from 2001 until December 2015. Ms Siân Herbert-Jones, in her capacity as Chair of the Audit and Accounts Committee, provides the Committee with her extensive financial expertise. Mr Aiman Ezzat served as Director of Financial Services from 2008 to 2012, and then as Chief Financial Officer at Capgemini from 2012 to 2018. In addition to his financial expertise, he also has extensive experience in digital and cybersecurity. Ms Anette Bronder has experience in major international groups, and has strong digital and cybersecurity expertise. She also has financial knowledge acquired through her experience in a re-insurance company.

Composition and tasks as defined by the internal regulations

The Committee must be comprised of three to five members of the Board of Directors and at least two-thirds of its members must be independent.

The tasks of the Audit and Accounts Committee as defined by the Board of Directors in the internal regulations are set forth below.

TASKS

“The purpose of the Committee is to prepare the deliberations to be taken by the Board of Directors by examining the following issues and reporting on them to the Board:

By receiving reports:

jointly and separately, in order to compare and combine different points of view, from:

- the Finance & Management Control and Legal Divisions;
- the General Control and Compliance Division;
- the external auditors.

Concerning the following points:

- existing organization and procedures in the Group;
- their actual functioning;
- how the financial statements and the accounts are drawn up.

In order to reach:

by comparing and combining the points of view collected and using their business judgment based on professional experience, a reasonable judgment concerning:

1. Accounts and accounting principles used (their conformity in relation to the reference standards, a fair and complete reflection of the Group's situation, transparency, readability, consistency over time).
2. Existence and functioning of control organizations and control procedures adapted to the Group, making it possible to identify and manage the risks incurred, including social and environmental risks, relying upon the work of the Environment and Society Committee, and to report on them.
3. Organization of the internal audit function, the plans for assignments and actions in the internal audit field, the findings of these assignments and actions and the recommendations and ensuing measures taken.
4. Choice and renewal of the external auditors, review of the tendering process, opinion on the selection of external auditors and the rotation of audit partners, review of proposed fees, information on the overall fees paid indicating the amount of fees paid for non-audit services.
5. Procedures relating to the preparation and processing of the extra-financial information.

The Committee:

1. Collects the observations of the Executive Management on these various issues. It hears the Chief Executive Officer or Senior Executive Vice Presidents at the Committee's request or at the request of the persons concerned.
2. Makes recommendations, where applicable, to guarantee the integrity of the financial information preparation process.
3. Monitors the performance by the Statutory Auditors of their engagement.
4. Ensures compliance with the conditions of independence of the Statutory Auditors defined by the applicable regulations and examines every year with the Statutory Auditors the risks with regard to their independence and the safeguard measures taken to attenuate these risks.
5. Makes a recommendation to the Board of Directors on the Statutory Auditors proposed for appointment by the General Meeting, including at the time of renewal of the term of office.
6. Approves the provision by the Statutory Auditors or the members of its network of services other than the certification of the financial statements under the conditions provided for by the internal procedure applicable in this field.
7. Receives the additional report of the Statutory Auditors in accordance with the provisions of article 11 of Regulation (EU) No. 537/2014 of April 16, 2014 and discusses with them the essential questions resulting from the statutory audit of the financial statements which are set out in the additional report.
8. Reports to the Board of Directors on its work, informing it of any problems that may be encountered, observations made to the Executive Management and progress made in relation to these observations.”

The Committee meets, in principle, four times a year, and always before the Board meetings during which the annual or interim financial statements are reviewed.

An initial oral report is given to the Board by the Committee Chair. Written minutes of the meeting are transmitted to the Directors. The Committee may ask to convene Group employees. It may meet with the Statutory Auditors or members of the Group Internal Control Department in person. It may call on external experts for assistance.

The Chairman of the Board and the Chief Executive Officer do not attend meetings of the Audit and Accounts Committee.

The Audit and Accounts Committee's work in 2022

The Audit and Accounts Committee met four times with an effective attendance rate, or attendance rate by telephone, of 100% its members.

The Committee reviewed the annual and interim Consolidated financial statements and the annual parent company financial statements; it took due note of the Company's financial situation, cash flow position and commitments. During the presentation by the Group Chief Financial Officer, the Committee more particularly analyzed the financial statements (income statement, balance sheet, cash flow), the provisions, the “Other operating income and

Governance – Composition, functioning and work of the Board of Directors and Committees

expenses” items, taxation, the risk exposure (including societal and environmental risks), in addition to the outlook. It reviewed the draft presentations on the financial statements for analysts. The Committee also ensured in particular that the specific climate risks were taken into account when preparing financial statements.

In addition, the Committee heard the presentations of the Statutory Auditors underlining the key points of the results and took note of their conclusions.

At the beginning of the year, the Committee reviewed the amount of fees paid to the Statutory Auditors in respect of the previous fiscal year. The Audit Committee was also informed of the non-audit services which were approved in 2022 within the scope of the approval procedure for the Group’s non-audit services, which was validated by the Board of Directors.

The Committee took due note of the contents of the three draft reports issued by the Statutory Auditors, pursuant to European Regulation No. 537/2014. The reports on the statutory accounts and the consolidated statements include a description of the principal audit topics and are included in the Universal Registration Document while the third, more detailed report, is intended for the Audit Committee only.

The Committee analyzed the performance, monitored efficiency programs, the Group’s financing policy, debt and liquidity management, and investment and divestiture decisions. The Committee also monitored the impact of the conflict between Russia and Ukraine on the Group’s business and results as well as the risk management measures implemented.

The Committee monitored the transition between Ernst & Young and KPMG following the change of the Statutory Auditors in 2022.

Furthermore, during the 2022 fiscal year, specific presentations were made to the Committee, notably covering the following points: (i) activities and execution of Engineering & Construction contracts, (ii) progress of digital asset protection actions, including those concerning operational/industrial information systems and cyber risk management, (iii) digital in the Healthcare business, (iv) monitoring of changes made within the Shared Service Centers (CSP), (v) organization of procurement, (vi) activities in the field of biomethane and (vii) country risks (with extension to geopolitical aspects).

The Committee ensured compliance with the regulations on ethics and the prevention of corruption and influence peddling, notably in the context of the review of the procedures in force within the Group and the monitoring of the actions required by the Sapin 2 Law. The Committee also ensured compliance with competition rules.

The Committee reviews on a regular basis the Group’s activities relating to advocacy and lobbying and reports on them to the Board of Directors.

The Committee heard regular reports on the main assignments carried out by the Group Compliance and Control Department, the follow-up of any corrective actions taken and the Compliance and Control Department’s main assignments for the forthcoming fiscal year. The Committee also regularly monitored the process for deployment of the risk management procedure within the Group. It reviewed the Group’s risk map and its evolution. The Committee reviewed the information provided in the Universal Registration Document concerning the internal control and risk management procedures and recommended its approval by the Board of Directors.

The Committee is tasked with monitoring the management of the risks identified by the Group, even if particular attention is paid to accounting or financial risks; a methodology for the monitoring of each type of risk (including, in particular, the identification of the management and control bodies and procedures) and an appropriate time scale (annual review or regular review at less frequent intervals, depending on the type of risks) was defined.

At year-end, the Committee ensures that all of the risks identified on the risk map and subject to regular review have been examined by the Audit Committee according to the frequency specified. The work program prepared for the 2023 fiscal year is consistent with this approach. It was presented to the Board for discussion. In addition, the Committee discussed topics specifically presented at the Board of Directors meeting.

The Audit and Accounts Committee also reviewed for 2022 the conclusions based on implementation of the assessment procedure for ordinary agreements entered into on arm’s length terms. It is noted that, pursuant to the PACTE Law, this procedure provides a methodology for regularly assessing whether the agreements involving L’Air Liquide S.A. that are not qualified as regulated agreements meet these conditions. This procedure also reminds the Group of the rules for classifying agreements entered into by L’Air Liquide S.A. as either regulated agreements or as ordinary agreements entered into on arm’s length terms. Application of this procedure during the past fiscal year did not give rise to any reclassification of an ordinary agreement entered into on arm’s length terms as a regulated agreement.

Several days prior to each meeting, a file of meeting documentation, available in electronic form, is provided to Committee members on a dedicated platform. Each Committee meeting is preceded by a preparatory meeting attended by the Committee Chair, assisted by the Committee Secretary, the Group Chief Financial Officer and the Group Control and Compliance Director. In order to prepare the meetings where financial statements are reviewed, the Committee Chair meets with the Statutory Auditors, without the presence of the Company representatives. During the meeting, each presentation made by the Group Chief Financial Officer, Group Control Director, the senior executive specializing in the area under discussion, or the Statutory Auditors during the financial statement review meetings is followed by discussion.

An oral and then written report of each meeting is prepared for the Board of Directors.

The Committee Chair receives summaries of the internal audit reports.

In addition, after presentation meetings for the accounts for the fiscal year, the Committee members can meet alone with the Statutory Auditors, without the presence of the Company representatives.

As recommended in the AFEP/MEDEF Code of Corporate Governance, the following measures are taken so that the time during which the financial statements are available to be reviewed is sufficient: preparatory meeting with the Committee Chair more than one week prior to the meeting, as provided for above; files made available to Committee members five to seven days in advance. These measures enable the members to review the financial statements well in advance of the meeting. When compatible with the schedules of the members traveling from abroad, the Committee meetings relating to the financial statements are held the day before the Board meeting.

Joint session of the Audit and Accounts Committee/ Environment and Society Committee

The internal regulations of the Board of Directors provide:

“Once a year, the members of the Environment and Society Committee and the members of the Audit and Accounts Committee shall meet at a joint session.

At this session, the members of the two Committees shall, in particular, review a summary of the environmental and societal risks examined over the course of the year by the Environment and Society Committee, review the environmental and societal risk-mapping, and jointly review certain specific environmental and societal risks and the associated control procedures, and review the procedures relating to the preparation and processing of the extra-financial information.”

It is noted that an initial joint session of the Audit Committee and the Environment and Society Committee was held for the first time in June 2019. This joint session, requested by the Directors in the Board’s evaluation questionnaire, permits good interaction between the two Committees, in particular with regard to the review of risks. The Audit Committee shall review the Group’s risks and related control procedures, including environmental and societal risks, which are examined in detail by the Environment and Society Committee. The joint session thus makes it possible for the members to discuss subjects which concern both the Committees.

The joint session also helps ensure a consistent approach, as reflected in the reconciliation of the financial and extra-financial data in the Integrated Management Report.

During the joint session of November 2022, members of the Audit and Accounts Committee and the Environment and Society Committee examined the summary of the risks reviewed by the Environment and Society Committee during the year, the mapping of environmental and societal risks (and changes to the referential) and procedures to control these risks.

The members of the two Committees also reviewed the procedures relating to the preparation and processing of extra-financial information, including a focus on the taxonomy, as well as a detailed examination of certain specific environmental and societal risks and substantive issues concerning in particular hydrogen production decarbonization processes.

As part of their work carried out during this joint session, the members also proposed clarifications to the internal regulations of the Board of Directors regarding the respective duties of the Audit and Accounts Committee, the Environment and Society Committee and the joint session between these two Committees. The Board of Directors, on the recommendation of the two Committees, adopted this new version of the internal regulations (which already contained the main principles for the distribution of work between the Audit and Accounts Committee and the Environment and Society Committee), in which it is specified that:

- the Audit and Accounts Committee reviews the Group’s risks based on the work of the Environment and Society Committee on environmental and societal risks (which examines these risks in detail);
- the Audit and Accounts Committee is in charge of monitoring the procedures relating to the preparation and processing of extra-financial information. This item is examined in a joint session with the Environment and Society Committee;
- the Environment and Society Committee is responsible for reviewing extra-financial information, including the Extra-financial Performance Statement.

10.2. THE APPOINTMENTS AND GOVERNANCE COMMITTEE

6 MEETINGS IN 2022 100% ATTENDANCE	3 MEMBERS	100% INDEPENDENCE
Members as of 12/31/2022		Individual attendance rate in 2022
Xavier Huillard (Chairman)		100%
Annette Winkler		100%
Bertrand Dumazy		100%

Composition and tasks as defined by the internal regulations

The Appointments and Governance Committee must be comprised of three to five members of the Board of Directors and the majority of its members must be independent, according to the assessment made by the Board. The Chairman of the Board of Directors participates in the work and attends Committee meetings. The Chief Executive Officer is involved in the Committee's work. However, they do not attend the deliberations made by this Committee with regard to their own personal cases. The Committee meets at least three times a year. The conclusions of Committee meetings are presented by the Committee Chair for discussion and decision-making at the next Board of Directors' meeting.

TASKS

Pursuant to the internal regulations, the tasks of the Appointments and Governance Committee are as follows:

“1. Concerning the Board of Directors:

- make proposals to the Board of Directors for renewal and appointment of Directors. This Committee looks for new members on the basis of its evaluation of the needs and developments expressed by the Board of Directors, and taking into consideration, in particular, the principle of attempting to achieve a balanced composition of the Board of Directors pursuant to the diversity policy described in article III of these internal regulations. The Committee, as part of the procedure that it has organized, selects future independent directors and carries out its own research into potential candidates before approaching them. The main steps included in this procedure are (i) the definition of the profile(s) sought, (ii) the search conducted by the Committee, with assistance from an external recruitment firm, if applicable, (iii) the review of the candidates and (iv) the final selection, notably after individual meetings with the Committee Chair and each member;
- make proposals to the Board of Directors for the creation and composition of Board Committees;
- periodically evaluate the structure, size and composition of the Board of Directors and submit to it recommendations regarding any potential change;
- the Committee periodically reviews the criteria applied by the Board to classify a Director as independent; once a year, it examines, on a case-by-case basis, the situation of each Director or each candidate for the duties of Director in light of the criteria applied and makes proposals to the Board of Directors.

2. Concerning the Chairman of the Board of Directors and the Chief Executive Officer (or the Chairman and Chief Executive Officer, as the case may be):

- examine, as necessary and, in particular at the time of expiry of the term of office concerned, the renewal of the terms of office of the Chairman of the Board of Directors and the Chief Executive Officer (or the Chairman and Chief Executive Officer, as the case may be);
- examine the changes in these duties and provide for solutions for their renewal, where applicable;
- examine the succession plan for members of the Company Management applicable in particular in the case of an unforeseen vacancy;
- examine periodically developments with regard to the Senior Executive Vice Presidents, hear the Chief Executive Officer (or the Chairman and Chief Executive Officer, as the case may be) on the needs and the potential proposals for their replacement;
- more generally, ensure that it is kept informed by the Chief Executive Officer (or the Chairman and Chief Executive Officer, as the case may be) of planned changes in Executive Management resources (and, in particular, the Executive Committee).

3. Concerning governance:

- examine, at the time of renewal of the terms of office of the Chairman of the Board of Directors and the Chief Executive Officer (or the Chairman and Chief Executive Officer, as the case may be) or when a request in that respect is made by Directors within the framework of the evaluation of the Board, in particular, whether it is appropriate to continue to combine these roles;
- monitor the changes in the rules of Corporate Governance, in particular within the scope of the Code to which the Company refers and inform the Board of Directors of its conclusions; follow up on the application of the rules of Corporate Governance defined by the Board of Directors and make sure of the information given to the shareholders on this topic;
- prepare the evaluation of the way the Board operates provided for by the internal regulations;
- examine issues of ethics that the Audit and Accounts Committee, the Board of Directors or its Chairman may decide to refer to it;
- ensure the proper functioning of the governance bodies and in particular the transmission of information requested by independent Directors;
- assist, at their request, the Chairman of the Board of Directors and the Chief Executive Officer in their dealings with independent Directors, and be the instrument of dialogue aimed at preventing potential situations of conflict on the Board.”

The Committee can request the assistance of outside experts if necessary. The Company shall provide the Committee in such a case with the corresponding funding.

The Appointments and Governance Committee's work in 2022

The Appointments and Governance Committee met six times in 2022 with an attendance rate, either in person or by telephone, of 100% of its members.

Concerning the succession of the Chairman and Chief Executive Officer

The Committee finalized its work related to the succession and presented its recommendation to the Board of Directors in favor of:

- separating the functions of the Chairman of the Board of Directors and the Chief Executive Officer;
- renewing Mr Benoît Potier as Chairman of the Board of Directors with specific missions over and above those entrusted to him by law;
- the appointment of Mr François Jackow as Chief Executive Officer;
- maintaining an independent Lead Director.

The separation of the functions of Chairman of the Board of Directors and of Chief Executive Officer has been effective since June 1, 2022 (see section 2 above).

Concerning the composition of the Board of Directors

During the 2022 fiscal year, the Committee examined the compliance of the composition of the Board of Directors with the rules provided for in the internal regulations. The Committee wondered about the needs of the Board in terms of skills, including with regard to the various subjects relating to CSR. It made recommendations on the desirable future changes in the composition of the Board of Directors in the short and medium-term and continued to manage the search and assessment procedure for potential candidates.

The work of the Committee relating to the search for candidates for the position of Director is presented paragraph 3.1, pages 138 to 139.

Concerning the composition of the Committees and the Working Group “Shareholder Relations”

In 2022, the Committee reviewed the composition of the Committees and the Working Group “Shareholder Relations”. In this context, the Committee recommended to the Board of Directors, in the context of the completion of the terms of office of Ms Sin Leng Low and Mr Jean-Paul Agon at the close of the General Meeting of May 4, 2022, to appoint as of this date (i) Mr Xavier Huillard as Chairman of the Appointments and Governance Committee, (ii) Mr Aiman Ezzat as member of the Audit Committee, (iii) Mr Bertrand Dumazy as a member of the Appointments and Governance Committee and (iv) Ms Fatima Tighlaline as a member of the Remuneration Committee. The Board meeting on May 4, 2022 approved this new composition of the Committees.

Concerning the Chief Executive Officer, the Chairman of the Board of Directors and the management teams

The Committee reviewed the specific procedure and scenario envisaged in the event of replacement of the Chairman of the Board of Directors and the Chief Executive Officer in an emergency situation. This procedure is reviewed each year and updated as needed. During the past fiscal year, this procedure was subject to changes in view of the new context of the separation of Chairman of the Board and Chief Executive Officer. In addition, an amendment to the articles of association was submitted and approved by the 2022 General Meeting concerning the statutory age limit of the Chief Executive Officer if he or she also serves as Chairman of the Board in the event of an emergency.

Successions

At the end of the work related to the succession in June 2022, at its meeting in September, the Committee examined the evolution of the Group’s management teams and talents, particularly in the context of future managerial succession plans. The Chief Executive Officer was involved in this work. In this context, discussions on the succession plan for the new Executive Officer were initiated.

These discussions will continue in 2023 and will be extended to the succession plan for the Chairman of the Board of Directors.

Other governance missions

In preparation for the General Meeting, the Committee reviewed the business continuity plan aimed at providing a replacement in the event that any of its members are unable to participate in the General Meeting.

The Committee took note of the information provided by the Directors concerning their terms of office as Directors which are external to the Group.

As part of the review of the independence of Board members and Director candidates, the Committee reviewed the personal situation of each member of the Board of Directors, and candidates for this position, with regard to the independence criteria defined in the internal regulations and in the AFEP/MEDEF Code. In this context, the Committee notably examined the existing business relations between the Group and the groups concerned with regard to each Director, or candidates for these functions.

In accordance with the provisions of the AFEP/MEDEF Code, a table presenting the situation of each Director with regard to each independence criterion is provided on page 141.

The Committee reviewed the level of attendance of each Director at the meetings of the Board of Directors and the Committees, which is shown in the table contained on page 142.

It reviewed the recommendations of the Report of the Haut Comité de gouvernement d’entreprise and the French financial market authority (Autorité des Marchés Financiers) Annual Report on Corporate Governance published in November and December 2022, respectively, and made its recommendations concerning the practices followed by the Company. It examined the draft of this section of the Universal Registration Document, incorporating part of the Report on Corporate Governance and recommended that it be adopted by the Board of Directors.

The Committee examined the potential deviations of the Group’s practices as compared to the AFEP/MEDEF Code – see chart on page 159. No discrepancies were noted by the Committee.

In accordance with the decision taken by the Board of Directors, the Committee selected an external service provider in order to carry out the Board’s evaluation in 2022. The Committee was informed of the practical arrangements for implementing this evaluation, including the organization of individual interviews with each Director. For more details on the evaluation of the Board of Directors, see section 7 – page 148.

The February 2023 Committee reviewed the means implemented to achieve the gender equality objectives within the Executive Committee in 2022. In this respect, the Committee reviewed the information relating to the manner in which the Company tries to obtain a balanced representation of women and men on this Committee, as well as the progress made in 2022 in connection with the gender mix targets for 2025 among engineers and executives (35% women) and the objectives concerning the positions with the highest level of responsibility (25% women among senior executives). The Committee recommended to the Board that the objectives for 2026 concerning the Executive Committee be maintained, namely 30% women by March 1, 2026. The Appointments and Governance Committee also reviewed the results concerning the gender mix with regard to the 10% of positions which carry the most responsibility – for details, see chapter 5 – pages 351, 352 and 400.

The Committee reviewed the training initiatives offered to Directors. These actions are detailed on pages 146 and 147 for the Directors representing the employees.

10.3. THE REMUNERATION COMMITTEE

3 MEETINGS IN 2022	3 MEMBERS including 1 Director representing the employees	100% INDEPENDENCE ^(a)
100% ATTENDANCE		
Members as of 31/12/2022	Individual attendance rate in 2022	
Xavier Huillard (Chairman)	100%	
Kim Ann Mink	100%	
Fatima Tighlaline (Director representing the employees)	100%	

(a) Directors representing employees are not taken into account for the calculation of this percentage.

Composition and tasks as defined by the internal regulations

The Remuneration Committee must be comprised of three to five members of the Board of Directors and the majority of its members must be independent. The Chairman of the Board of Directors (or the Chairman and Chief Executive Officer, as the case may be) participates in the work and attends the Committee's meetings. The Chief Executive Officer is involved in the Committee's work, particularly when the latter is informed of the remuneration policy for the main non-corporate officers. However, the Chairman of the Board of Directors and the Chief Executive Officer (or the Chairman and Chief Executive Officer, as the case may be), do not attend the deliberations of this Committee relating to their personal cases. The Committee meets at least three times a year. The conclusions of Committee meetings are presented by the Committee Chair for discussion and decision-making at the next Board of Directors' meeting.

TASKS

Pursuant to the internal regulations, the tasks of the Remuneration Committee are as follows:

- “examine the performance and all the components of remuneration for the Corporate Officers and make the corresponding recommendations to the Board of Directors (including, in particular, with regard to the determination of the remuneration policy and its application);
- propose, where applicable, the remuneration of the Vice Chairman or Vice Chairmen;
- examine the remuneration and retirement policy applied to executives and in particular to Executive Committee;
- examine the proposals by the Executive Management concerning the granting of stock options, performance shares and other incentive systems related to the share price to other Group employees and propose their granting to the Board of Directors;
- examine and propose to the Board of Directors the allocation of the fixed annual sum awarded to the Directors set by the General Meeting, in compliance with the legislation relating to the remuneration policy for the Corporate Officers.

The Committee can request the assistance of outside experts if necessary. The Company shall provide the Committee in such a case with the corresponding funding.”

The Remuneration Committee's work in 2022

The Remuneration Committee met three times in 2022 with an effective attendance rate, or attendance rate by telephone, of 100% of its members. At Board meetings, the Committee Chair reports on the work of the Remuneration Committee. At the General Meeting, the Committee Chair reports on the Board's decisions concerning the remuneration applicable to the Group's Company Officers.

Remuneration of the Executive Officers/long-term incentive policy

In 2022, the Committee evaluated the performance of the Chairman and Chief Executive Officer and the level of achievement of the objectives of his variable remuneration for fiscal year 2021 and drafted recommendations to the Board. It reviewed the draft reports and resolutions to be put to the General Meeting of May 4, 2022, concerning the remuneration of the corporate officers (a report containing information on the remuneration of the Executive Officer and the Directors and provided for in article L. 22-10-9 I of the French Commercial Code) and the Executive Officer's individual remuneration for 2021.

In preparing the Company Executive Management succession plan, the Committee worked on the new draft remuneration policy for Company Officers established in keeping with the prior policy, while taking into account evolutions related to the changes in governance under a separate governance mode (these elements were published in the 2021 Universal Registration Document).

During its work on the 2022 LTI allocation plans, the Committee renewed its recommendation to allocate only performance shares to all beneficiaries (including the Executive Officer), in accordance with the general market trend, and for reasons of simplification and homogenization of the system.

The Chief Executive Officer was involved in the work related to the allocation of performance shares for 2022, concerning the allocation to Group employees (including the Executive Committee), as well as the review of the performance of the Executive Committee.

In February 2023, the Committee reviewed the satisfaction of the performance conditions in the 2020 LTI plans, for which the three-year review period expired on December 31, 2022.

For 2023, the Committee reviewed the remuneration policy of the corporate officers submitted to the General Meeting of May 3, 2023.

It recommended the performance conditions of the 2023 LTI plans that were adopted by the Board of Directors in February 2023, including performance criteria similar to those defined for the 2022 LTI plans (linked to ROCE, TSR and the Climate objectives).

It reviewed the shareholding rules which apply to the Company Officers.

The Committee prepared the February 2023 assessment by the Board of Directors of the level of achievement of the performance conditions for the short-term variable remuneration and the pension insurance contract of Mr Benoît Potier in his capacity as Chairman and Chief Executive Officer (for the period from January 1 to May 31, 2022) and Mr François Jackow in his capacity as Chief Executive Officer (for the period from June 1 to December 31, 2022).

The Committee also reviewed the calculation of the remuneration ratios presented in the Universal Registration Document. For 2022, following the separation of the functions of Chairman of the Board and Chief Executive Officer effective from June 1, 2022 and in accordance with the methodology provided for by the AFEP guidelines, the information required concerns the Chairman and Chief Executive Officer, the Chief Executive Officer and the Chairman of the Board of Directors. The scope is identical to that of last year, namely the Company itself and the “entire France” scope. In addition, in order to comply with the spirit of the AFEP guidelines, to allow a relevant comparison with employees, and to ensure continuity in the information communicated in successive Universal Registration Documents, the principle adopted for the presentation of the information of the Company Officers referred to above is that of the annualization of remuneration (see pages 205 to 207).

Remuneration of the Directors

The Committee made its recommendations on changes to the remuneration policy of Directors presented to the General Meeting of May 4, 2022. After the General Meeting approved this policy, the Committee reviewed the formula for allocation of Directors' remuneration – see page 208. It recommended amounts to be allocated to Directors within the overall pay package authorized by the General Meeting.

The Committee also recommended the remuneration policy for Directors to be presented to the General Meeting of May 3, 2023, established in keeping with the policy set for the 2022 fiscal year. It recommended an evolution in the amount allocated to the Directors for intercontinental travels in order to improve very slightly its competitiveness – see section "Remuneration policy applicable to directors" – pages 235 to 236.

Corporate Governance

As part of its work, the Remuneration Committee analyses the Shareholders interviews conducted as part of General Meeting preparations and the results of General Meeting votes on resolutions relating to remuneration. It analyzes the reports published by the HCGE and AMF and takes their recommendations into account when creating the remuneration policy.

The Committee looked at the measures on transparency and communication and issued its recommendations. It reviewed the section below on remuneration, enclosed in the Report on

Composition and tasks as defined by the internal regulations

The Committee must comprise three to four members of the Board of Directors.

TASKS

"The tasks of this Committee are as follows:

- examine, and make recommendation regarding the Group's strategy and commitments in the field of sustainable development;
- monitor the Group's environmental actions (including in particular topics related to air quality, energy consumption, greenhouse gas emissions) and societal actions and their deployment, as well as the actions engaged by the Foundation;
- examine the environmental and societal risks in liaison with the Audit Committee and the impact of environmental and societal issues in terms of investment, performance and image;
- make an annual review of a summary of the extra-financial ratings made with regard to the Group;
- make a reasonable judgment regarding the extra-financial information, including the Extra-financial Performance Declaration."

In principle, the Committee meets three times a year.

It reports on its work to the Board of Directors. The conclusions of the meetings of the Environment and Society Committee are presented by the Committee Chair for discussion and, if applicable, for a decision by the Board of Directors at a later Board meeting. The Committee may be assisted by external experts.

Regular reports are made to the Committee by the member of the Executive Committee in charge of sustainable development on the Group's sustainable development strategy and its implementation, and the progress made.

The Environment and Society Committee's work in 2022

The Environment and Society Committee met three times in 2022, with an effective attendance rate or attendance rate by telephone of 100% of its members.

During these meetings, the Committee reviewed the Group's environmental and societal risks, their evolution, and the associated control procedures. With regard to greenhouse gas emissions, the Committee's work focused in particular on

Corporate Governance (the section on remuneration), and recommended their approval by the Board of Directors.

10.4. THE ENVIRONMENT AND SOCIETY COMMITTEE

3 MEETINGS	3 MEMBERS including 1 Director representing the employees	100% INDEPENDENCE ^(a)
100% ATTENDANCE		
Member	Individual participation rate	
Annette Winkler (Chairwoman)	100%	
Geneviève Berger	100%	
Philippe Dubrulle (Director representing the employees)	100%	

(a) Directors representing employees are not taken into account for the calculation of this percentage.

The Environment and Society Committee, which focuses on Corporate Social and Environmental Responsibility issues, was formed on May 3, 2017.

elements related to the assessment, management and reporting by the Group of greenhouse gases emissions according to the various scopes.

The issue of water management was also examined by the Committee, as was the policy for managing this risk, incorporating the objectives set by the Group. It also reviewed the Group's approach to biodiversity as well as the Group's first set of commitments in this area.

The Committee also monitored the implementation of ESG objectives (Environment, Societal, Governance). In this context, it examined notably the progress made in the deployment of each performance indicator used to measure the level of progress made within each objective concerned. In this context, the Committee reviewed the deployment of the measures put in place by the Group. The Group's ESG objectives are part of Air Liquide's growth strategy and are structured around three criteria: ACT for a low-carbon society by reducing CO₂ emissions, ACT for health, and ACT with confidence by engaging alongside employees and adhering to best governance practices.

The work of the Air Liquide Foundation was also presented to the Committee, in particular the ongoing projects structured around three programs: medical research, professional integration and local support. The programs developed between the Foundation and Citizen at Work were also examined, as well as the impacts of these programs on Ukrainian refugees in Poland.

The Committee reviewed the Group's actions to facilitate access to medical oxygen in low- and moderate-income countries.

The Committee was informed of the publication of the Group's first Sustainability Report in April 2022, the content of which was presented to it. This document, published separately, presents Air Liquide's commitments in terms of sustainable development and details the measures taken for a positive and lasting impact on the climate, health and people. This report also aggregates all the extra-financial information.

The Committee reviewed the information in the Extra-financial Performance Declaration included in this Universal Registration Document as well as the Vigilance Plan. Furthermore, the Committee read the Report summarizing the Group's extra-financial ratings. It also drew up a draft work program for 2023.

Meeting documentation is prepared and made available to members in electronic format via a dedicated platform several days before each meeting of the Environment and Society Committee. At the meeting, each presentation made gives rise to discussion. An oral and then written report of each meeting is prepared for the Board of Directors.

Since 2019, in the interests of smooth coordination with the work of the Audit and Accounts Committee, the latter and the Environment and Society Committee meet in joint session once a year. See page 154 of this Document for information on the November 2022 joint session.

11. Application of the AFEP/MEDEF Corporate Governance Code: summary table

L'Air Liquide S.A. applies the AFEP/MEDEF Code and regularly reviews the practices in force in the Company with regard to the provisions of the AFEP/MEDEF Code in order to ensure compliance with it.

The Company considers that its practices comply with the recommendations of the AFEP/MEDEF Code.

In the context of the "Apply or Explain" rule provided for by article L. 22-10-10 of the French Commercial Code, and referred to in article 28.1 of the AFEP/MEDEF Code of December 2022, the Company noted prior to this year, a discrepancy concerning the lack of a Director representing the employees on the Remuneration Committee (article 19.1 of the AFEP/MEDEF Code).

Given the appointment of Ms Fatima Tighlaine, Director representing the employees, as a member of the Remuneration Committee, by decision of the Board of Directors in May 2022, this discrepancy has been eliminated.

AFEP/MEDEF recommendations rejected	L'Air Liquide S.A. practice and justification
None	N/A

12. Working Group "Shareholder Relations"

The Working Group "Shareholder Relations" is currently composed of two members: Mr Benoît Potier, Chairman and Mr Xavier Huillard. During the past fiscal year, the tasks of the Working Group "Shareholder Relations" have essentially focused on the shareholder base, Air Liquide's relations with its Shareholders, market expectations and shareholder strategy.

13. Participation by Shareholders at the General Meeting

Pursuant to article L. 22-10-10, 5° of the French Commercial Code, it is specified that the specific terms and conditions relating to the participation of Shareholders at the General Meeting are set out in articles 5 to 10 and 18 and 19 of the Company's articles of association – see pages 474 et seq. of this Universal Registration Document.

14. Delegations of Authority granted by the General Meeting

Pursuant to article L. 225-37-4, 3° of the French Commercial Code, it is specified that the summary table of the valid delegations of authority granted by the General Meeting in connection with increases in the share capital is set out on page 472 of this Universal Registration Document.

INFORMATION CONCERNING MEMBERS OF THE BOARD OF DIRECTORS AND EXECUTIVE MANAGEMENT

(as of December 31, 2022)



Benoît POTIER

Chairman and Chief Executive Officer

Nationality: French

Born on September 3, 1957

Date of first appointment: May 2000

Start of current term: May 2022

End of current term: 2026 (General Meeting to approve the financial statements for the fiscal year ending December 31, 2025)

Number of shares owned as of December 31, 2022: 601,380

Business address: Air Liquide – 75, quai d'Orsay – 75321 Paris Cedex 07 – France

Career

A graduate of École Centrale de Paris, Benoît Potier joined Air Liquide in 1981 as a Research and Development engineer. After serving as a Project Manager in the Engineering & Construction Division, he was made Vice President of Energy Development in the Large Industries business line. In 1993, he became Director of Strategy & Organization and, in 1994, was put in charge of the Chemicals, Metal & Steel, Oil and Energy Markets. He was made an Executive Vice President of Air Liquide in 1995 with additional responsibilities over the Engineering & Construction Division and the Large Industries operations in Europe. Benoît Potier was appointed Chief Executive in 1997. He was appointed to the Board of Directors in 2000 and became Chairman of the Management Board in November 2001. He was Chairman and Chief Executive Officer of L'Air Liquide S.A. from May 2006 to May 2022. Since June 1st, 2022, he has been Chairman of the Board of Directors.

Positions and activities held during the 2022 fiscal year

Functions within the Air Liquide Group

- **Chairman and Chief Executive Officer:** L'Air Liquide S.A.* (until May 31, 2022)
- **Chairman of the Board of Directors:** L'Air Liquide S.A. (since June 1, 2022)
- **Chairman and Chief Executive Officer:** Air Liquide International (until June 24, 2022), Air Liquide International Corporation (ALIC) (until July 21, 2022)
- **Director:** American Air Liquide Holdings, Inc. (until June 22, 2022)
- **Director:** The Hydrogen Company (until December 31, 2022)
- **Director:** Air Liquide Foundation (until November 17, 2022)

Positions or activities outside the Air Liquide Group

- **Member of the Supervisory Board:** Siemens AG* (member of the Appointments Committee)
- **Co-Chair:** The Hydrogen Council (until June 1st, 2022)
- **Member:** The Hydrogen Council (since June 1st, 2022)
- **Co-Chair:** Conseil National de l'Hydrogène (since January 11, 2021)
- **Member:** European Round Table of Industrialists (ERT)
- **Member:** Asia Business Council

* Listed company.

- **Member of the Strategic Orientation Committee:** Paris-Saclay University

- **Member:** Singapore International Advisory Panel on Energy (since January 1, 2021)

- **Member of the Advisory Board:** Temasek European Advisory Panel (since January 1, 2022)

Positions and activities held during the last five years and that have expired

2021

- **Director:** Danone* (Chair of the Engagements Committee; member of the Governance Committee) (until April 29, 2021)

2019

- **Director:** CentraleSupélec (until September 2019), Association nationale des sociétés par actions (ANSA) (until April 2019)
- **Member of the Board:** Association française des entreprises privées (AFEP) (until May 2019)

2018

- **Chairman:** European Round Table (ERT) (until May 2018)

2017

- **Chairman:** Air Liquide Foundation (until March 2017)



François JACKOW

Director – Chief Executive Officer

Nationality: French

Born on June 12, 1969

Date of first appointment: May 2022

Start of current term: May 2022

End of current term: 2026 (General Meeting to approve the financial statements for the fiscal year ending December 31, 2025)

Number of shares owned as of December 31, 2022: 52,972

Business address: Air Liquide – 75, quai d'Orsay – 75321 Paris Cedex 07 – France

Career

François Jackow has a dual scientific and managerial education acquired in France and in the United States. A graduate from the École normale supérieure de Paris, he also holds a Master's degree in Chemistry from Harvard University in the United States and an MBA from the Collège des ingénieurs. He joined the Air Liquide Group in 1993. After a very international career started in the United States and in the Netherlands, which led him to successively hold responsibilities in sales, marketing, and engineering & construction, François Jackow worked for two years alongside Benoît Potier, Chief Executive of the Group at that time. In 2002, he was appointed Vice President of Innovation, supervising Research & Development activities as well as Advanced Technologies for the Group. Starting 2007, he undertakes the responsibility of Chief Executive Officer for Air Liquide Japan, based in Tokyo, before being appointed Group Vice President of the Large Industries Business Line in 2011. In 2014, François Jackow joined the Executive Committee and was designated as the Group's Strategy Vice President. In this role, he oversees the development of the NEOS strategic plan and contributes to the Airgas acquisition in 2016. A member of the Executive Committee, François Jackow, was the Group's Executive Vice President supervising notably Europe Industries, Europe Healthcare as well as the Africa, Middle East & India hubs. He is also in charge of the Healthcare World Business Line, the Innovation & Technologies, Digital & IT functions also reported to him, as well as the Customer Division, which he created in 2014. Appointed Member of the Board of Directors on May 4, 2022, François Jackow has been Chief Executive Officer of L'Air Liquide S.A. since June 1st, 2022.

Positions and activities held during the 2022 fiscal year

Functions within the Air Liquide Group

- **Director:** L'Air Liquide S.A.* (since May 4, 2022)
- **Chief Executive Officer:** L'Air Liquide S.A.* (since June 1st, 2022)
- **Executive Vice President:** L'Air Liquide S.A.* (until May 31, 2022)
- **Chairman and Chief Executive Officer:** Air Liquide International (since June 24, 2022); Air Liquide International Corporation (since July 21, 2022)
- **Director:** American Air Liquide Holdings (since June 22, 2022); The Hydrogen Company (since June 27, 2022)
- **Chairman of the Board of Directors and Director:** Air Liquide Santé International (until October 7, 2022)
- **Director:** Air Liquide Foundation

Positions or activities outside the Air Liquide Group

- **Member of the Management Committee:** Atelier de Constructions Mécaniques de la Marne (ACMM)

Positions and activities held during the last five years and that have expired

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* Listed company.



Xavier HUILLARD

Lead Director – Chairman of the Remuneration Committee – Chairman of the Appointments and Governance Committee

Nationality: French

Born on June 27, 1954

Date of first appointment: May 2017

Start of current term: May 2021

End of current term: 2025 (General Meeting to approve the financial statements for the fiscal year ending December 31, 2024)

Number of shares owned as of December 31, 2022: 2,226

Business address: VINCI – Bâtiment JAVA – 1973 Boulevard de la Défense CS 10268 – 92757 Nanterre Cedex – France

Career

Xavier Huillard is a graduate of the École polytechnique and the École nationale des ponts et chaussées. He has spent most of his working life in the construction industry in France and abroad. He joined Sogea in December 1996 as Deputy Chief Executive Officer in charge of international activities and specific projects, and then became its Chairman and Chief Executive Officer in 1998. He was appointed Deputy General Manager of VINCI, a world leader in concessions, energy and construction, in March 1998 and was Chairman of VINCI Construction from 2000 to 2002. He was appointed Senior Executive Vice President of VINCI and was Chairman and Chief Executive Officer of VINCI Energies from 2002 to 2004, then Chairman of VINCI Energies from 2004 to 2005. Xavier Huillard became Director and Chief Executive Officer of VINCI in 2006. He has been appointed Chairman of the Board of Directors and Chief Executive Officer of VINCI since May 6, 2010. He was Chairman of the Institut de l'Entreprise from January 2011 to January 2017, of which Xavier Huillard is today Honorary Chairman.

Positions and activities held during the 2022 fiscal year

Functions within the Air Liquide Group

- **Director:** L'Air Liquide S.A.* (Lead Director since May 4, 2022; member of the Remuneration Committee since May 2017 and Chairman of this Committee since May 2018; member of the Appointments and Governance Committee since May 2020 and Chairman of this Committee since May 4, 2022)

Positions or activities outside the Air Liquide Group

- **Chairman and Chief Executive Officer:** VINCI*
- **Chairman:** VINCI Concessions SAS
- **Chairman of the Supervisory Board:** VINCI Deutschland GmbH
- **Permanent representative** of VINCI on the Board of Directors of VINCI Energies, and of Fabrique de la Cité
- **Permanent representative** of Snel on the Board of Directors of ASF
- **Permanent representative** of VINCI Autoroutes on the Board of Directors of Cofiroute
- **Chairman:** Fondation d'entreprise VINCI de la Cité
- **Director:** Kansai Airports
- **Honorary Chairman:** Institut de l'entreprise
- **Director: Association** Aurore (public interest association against precariousness and exclusion)
- **Director:** Cobra Servicios, Comunicaciones y Energia SLU (Spain) (since December 27, 2021)
- **Director and Chairman:** Pierre Lamoure Institute (since September 30, 2019)

Positions and activities held during the last five years and that have expired

2020

- **Permanent representative** of VINCI on the Board of Directors of Aéroports de Paris* (member of the Remuneration, Appointment and Governance Committee) (until December 15, 2020)

2019

- **Vice President:** Aurore Association (until December 2019)

2017

- **Chairman:** Institut de l'Entreprise (until January 2017)

* Listed company.

N.B.: For information regarding independence criteria, please refer to this Universal Registration Document – pages 139 to 142.



Annette WINKLER

Independent Director – Environment and Society Committee Chairwoman – Member of the Appointments and Governance Committee

Nationality: German

Born on September 27, 1959

Date of first appointment: May 2014

Start of current term: May 2022

End of current term: 2026 (General Meeting to approve the financial statements for the fiscal year ending December 31, 2025)

Number of shares owned as of December 31, 2022: 2,900

Business address: Villa Kayser – Uhlbacher Strasse 7 – 70329 Stuttgart – Germany

Career

Doctor in Economics from the University of Frankfurt (Germany), Annette Winkler became the Managing Shareholder of a medium-sized construction company. In 1995, she joined the Mercedes-Benz group, where she held a variety of positions and in particular that of Senior Director/Head Public Relations and Communications. After spending two years as Head of the Mercedes-Benz sales and service outlet in Braunschweig, she became Chief Executive Officer of DaimlerChrysler Belgium and Luxembourg (1999-2005), then Vice President of Global Business Management & Wholesale Europe (2006-2010). Vice President of Daimler AG since 2010, she was Chief Executive Officer of smart (with overall responsibility for the brand, also in charge of the smart factory in Lorraine), until 2018.

Positions and activities held during the 2022 fiscal year

Functions within the Air Liquide Group

- **Director:** L'Air Liquide S.A.* (member of the Remuneration Committee from May 2015 to May 2020; member of the Appointments and Governance Committee since May 2017; Chairwoman of the Environment and Society Committee since May 2020)

Positions or activities outside the Air Liquide Group

- **Director:** Renault S.A.* (Chairwoman of the Strategy and Sustainable Development Committee since January 2020); Renault S.A.S.

Positions and activities held during the last five years and that have expired

2020

- **Member of the Counsel for Foreign Economic Affairs** of the German Ministry for Economics (until March 2020)

2019

- **Member of the Supervisory Board:** Mercedes-Benz South Africa (until June 2019)

2018

- **Vice President:** Daimler AG*, head of smart (until September 2018)

* Listed company.

N.B.: For information regarding independence criteria, please refer to this Universal Registration Document – pages 139 to 142.



Philippe DUBRULLE

Director representing the employees – Member of the Environment and Society Committee

Nationality: French

Born on June 23, 1972

Date of first appointment by the Group Committee in France: June 2014

Start of current term: May 2022

End of current term: 2026 (General Meeting to approve the financial statements for the fiscal year ending December 31, 2025)

Business address: Air Liquide Advanced Technologies – 2, rue de Clémencière – 38360 Sassenage – France

Career

An engineering graduate from École Supérieure de l'Énergie et des Matériaux, Philippe Dubrulle has held various positions as an engineer, Product Manager and International Sales Manager at several aeronautical groups both in France and abroad. He joined Air Liquide Group in 2008. Based in Sassenage, he is an employee of the subsidiary Air Liquide Advanced Technologies. He is Transformation Projects Manager of the subsidiary. Philippe Dubrulle was appointed as the Director representing the employees by the Group Committee in France on June 18, 2014, his office was renewed by that same Committee for the second time, at its plenary session on December 16, 2021. A Member of the French Institute of Directors, he has been a Certified Company Director – ASC France since November 2016.

Positions and activities held during the 2022 fiscal year

Functions within the Air Liquide Group

- **Director:** L' Air Liquide S.A.* (member of the Environment and Society Committee since May 2017)
- **Projects Manager – Transformation Projects Supervisor:** Air Liquide Advanced Technologies

Positions and activities held during the last five years and that have expired

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* Listed company.



Siân HERBERT-JONES

Independent Director – Audit and Accounts Committee Chairwoman

Nationality: British

Born on September 13, 1960

Date of first appointment: May 2011

Start of current term: May 2019

End of current term: 2023 ^(a) (General Meeting to approve the financial statements for the fiscal year ending December 31, 2022)

Number of shares owned as of December 31, 2022: 1,124

Career

Holder of a Master of Arts degree in History from Oxford University and a graduate from the Institute of Chartered Accountants in England and Wales, Siân Herbert-Jones first practiced for 13 years with the firm of PriceWaterhouseCoopers, in the London office from 1983-1993 in particular in the capacity of Corporate Finance Manager, then in the Paris office from 1993 to 1995 in the capacity of Mergers & Acquisitions Manager. She then joined the Sodexo Group in 1995 in which she was successively in charge of international development from 1995 to 1998 and the Group's Treasury Department from 1998 to 2000 then Deputy Chief Financial Officer in 2000. From 2001 to December 21, 2015, she was Chief Financial Officer; and member of the Executive Committee of the Sodexo Group. Since 2016, she holds several positions within Board of Directors of large companies and also pursues other consulting activities in societal and environmental fields.

Positions and activities held during the 2022 fiscal year

Functions within the Air Liquide Group

- **Director:** L'Air Liquide S.A.* (Chairwoman of the Audit and Accounts Committee since May 2015; member of this Audit and Accounts Committee since May 2013)

Positions or activities outside the Air Liquide Group

- **Director:** Capgemini SE* (member of the Audit and Risks Committee since May 2016 and Member of the Ethics and Governance Committee since May 2021)
- **Director:** Bureau Veritas* (Chairwoman of the Audit and Risks Committee since February 2021)

Positions and activities held during the last five years and that have expired

2021

- **Director:** Compagnie Financière Aurore Internationale (Sodexo group)

2017

- **Member of the Appointments and Remuneration Committee:** Bureau Veritas* (until May 2017)

(a) The Board of Directors, in agreement with Ms Siân Herbert-Jones, agreed that the renewal of her office will not be proposed to the General Meeting of May 3, 2023.

* Listed company.

N.B.: For information regarding independence criteria, please refer to this Universal Registration Document – pages 139 to 142.



Geneviève BERGER

Independent Director – Member of the Environment and Society Committee

Nationality: French

Born on January 26, 1955

Date of first appointment: May 2015

Start of current term: May 2019

End of current term: 2023 ^(a) (General Meeting to approve the financial statement for the fiscal year ended December 31, 2022)

Number of shares owned as of December 31, 2022: 677

Career

With a Ph.D. in physics, a Doctor of Medicine, and with a Ph.D. in human biology, Geneviève Berger was Director of the mixed laboratory for parametric imaging CNRS-Broussais Hôtel-Dieu from 1991 to 2000. She was General Manager of the CNRS between 2000 and 2003. She served as University Professor and Hospital Managing Director at La Pitié-Salpêtrière between 2003 and 2008 before joining Unilever as Chief Research and Development Officer and then Chief Science Officer from 2008 to 2014. Geneviève Berger was the Head of the research department at the Swiss company Firmenich from July 1, 2015 to June 30, 2021 and Strategic Advisor to the Chairman and Chief Executive Officer until December 31, 2021.

Positions and activities held during the 2022 fiscal year

Functions within the Air Liquide Group

- **Director:** L' Air Liquide S.A.* (member of the Environment and Society Committee since May 2017)

Positions or activities outside the Air Liquide Group

- **Strategic Advisor:** OM Pharma (since May 20, 2021)
- **Member of the Supervisory Board:** Institut Curie (since October 2022)

Positions and activities held during the last five years and that have expired

2021

- **Head of the Research Department:** Firmenich (until June 30, 2021)
- **Strategic Advisor to the CEO:** Firmenich (until December 31, 2021)
- **Non-Executive Director and member of the Scientific Committee:** AstraZeneca* (until May 11, 2021)

(a) The Board of Directors, in agreement with Ms Geneviève Berger, agreed that the renewal of her office will not be proposed to the General Meeting of May 3, 2023.

* Listed company.

N.B.: For information regarding independence criteria, please refer to this Universal Registration Document – pages 139 to 142.



Anette BRONDER

Independent Director – Member of the Audit and Account Committee

Nationality: German

Born on December 13, 1967

Date of first appointment: May 2020

Start of current term: May 2020

End of current term: 2024^(a) (General Meeting to approve the financial statements for the fiscal year ending December 31, 2023)

Number of shares owned as of December 31, 2022: 550

Business address: Tucholskystrasse 16 – 70469 Stuttgart – Germany

Career

A German citizen, Anette Bronder is a graduate of the University of Stuttgart (holder of a Master in Economics and Social Sciences). She started her career with Hewlett Packard GmbH in 1997, specializing in IT and Consulting, and held a number of senior management positions. In 2010, she was appointed Director of Enterprise Technology at Vodafone Germany, and became Director of Enterprise Technology for Vodafone Group worldwide in London in 2013. In 2015, Anette Bronder joined T-Systems International, a subsidiary of Deutsche Telekom, as Director Digital Division and a member of the Management Board, responsible for building up and managing the growth areas “Internet of Things”, “Public Cloud” and “Cybersecurity”. From June 1, 2019 to December 31, 2021, Anette Bronder was the Group Chief Operating Officer of Swiss Re, a world-leading provider of re-insurance, based in Zurich.

Positions and activities held during the 2022 fiscal year

Functions within the Air Liquide Group

- **Director:** L’Air Liquide S.A.* (member of the Audit and Account Committee since September 2021)

Positions or activities outside the Air Liquide Group

–

Positions and activities held during the last five years and that have expired

2021

- **Chief Operating Officer:** Swiss Re* (until December 17, 2021)

2019

- **Director:** Elumeo SE (until September 2019)

2018

- **Director:** Ströer SE (until December 2018)
- **Director:** German Research Center for Artificial Intelligence (until December 2018)

2017

- **Director Digital Division and Member of the Management Board:** T-Systems International

(a) Ms. Anette Bronder has informed the Board of Directors that she will resign from her office as Director with effect from January 3, 2023. This decision is linked to her intention to take up executive office with an audit firm, which is not compatible with maintaining her office as a Director of L’Air Liquide S.A.

* Listed company.

N.B.: For information regarding independence criteria, please refer to this Universal Registration Document – pages 139 to 142.



Kim Ann MINK

Independent Director – Member of the Remuneration Committee

Nationality: American

Born on December 4, 1959

Date of first appointment: May 2020

Start of current term: May 2020

End of current term: 2024 (General Meeting to approve the financial statements for the fiscal year ending December 31, 2023)

Number of shares owned as of December 31, 2022: 550

Business address: 36 Popjoy Lane – Glenmoore PA 19343 – United States

Career

An American citizen, Kim Ann Mink holds a bachelor's degree in Chemistry from Hamilton College and a Ph.D. in Analytical Chemistry from Duke University, and is a graduate of the Executive Management Program at the Wharton School of the University of Pennsylvania. Dr. Mink spent most of her career in leading international groups in the chemical sector, where she held increasing managerial positions. She joined Innophos in 2015 as President and CEO and was named Chairman in 2017. Prior to joining Innophos, she served in senior executive positions at the Dow Chemical Company since 2009, most recently as business president of Elastomers, Electrical and Telecommunications. She had previously served for more than 20 years at the Rohm and Haas Company (which was acquired by Dow Chemical) where she held roles of increasing responsibility, including corporate vice president and general manager for the Ion Exchange Resins business.

Positions and activities held during the 2022 fiscal year

Functions within the Air Liquide Group

- **Director:** L'Air Liquide S.A.* (member of the Remuneration Committee since September 2021)

Positions or activities outside the Air Liquide Group

- **Director:** Eastman Chemical Company* (member of the Audit Committee; member of the Finance Committee; member of the Environmental, Safety and Sustainability Committee)
- **Director:** Avient Corp.* (formerly PolyOne Corp.*) (member of the Audit Committee; member of the Environmental, Health and Safety Committee)
- **Member:** Board of Advisors, Raj & Kamla Gupta Governance Institute, Drexel University LeBow College of Business

Positions and activities held during the last five years and that have expired

2020

- **Chairman and Chief Executive Officer:** Innophos* (until February 7, 2020)

* Listed company.

N.B.: For information regarding independence criteria, please refer to this Universal Registration Document – pages 139 to 142.



Fatima TIGHLALINE

Director representing the employees – Member of the Remuneration Committee

Nationality: French

Born on November 14, 1979

Date of the first appointment by the European Work Council: October 2020

Start of current mandate: October 2020

End of current term: 2024 (General Meeting to approve the financial statements for the fiscal year ending December 31, 2023)

Business address: VitalAire France – 10 bis, rue du Moulin Vert – 94400 Vitry-sur-Seine – France

Career

With a technology degree in Business and Administrative Management from Evreux Technology University (IUT) and a degree in Modern Languages from Paris New Sorbonne University, Fatima Tighlaline joined the Group in 2002 as a treasury accountant. She continued her career in the Rare Gases and Helium Department, and then at Air Liquide Santé France in the Procurement Department. In March 2020, she joined VitalAire (a subsidiary specializing in Home Healthcare) as manager of the Île-de-France planning team. Pursuant to article L. 225-27-1-II of the French Commercial Code and article 11 of the Company's articles of association, Fatima Tighlaline was appointed Director representing the employees and member of L'Air Liquide S.A.'s Board of Directors by the European Works' Council on October 1, 2020. She has been a Certified Company Director – IFA Sciences Po since December 2021.

Positions and activities held during the 2022 fiscal year _____

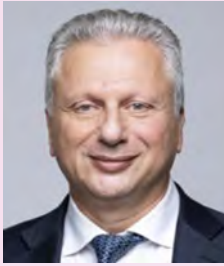
Functions within the Air Liquide Group

- **Director:** L'Air Liquide S.A.* (member of the Remuneration Committee since May 4, 2022)
- **Head of the Île-de-France respiratory planning team:** VitalAire France

Positions and activities held during the last five years and that have expired _____

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* Listed company.



Aïman EZZAT

Independant Director – Member of the Audit and Account Committee

Nationality: French

Born on May 22, 1961

Date of first appointment: May 2021

Start of current term: May 2021

End of current term: 2025 (General Meeting to approve the financial statements for the fiscal year ending December 31, 2024)

Number of shares owned as of December 31, 2022: 500

Business address: CAPGEMINI SE – 11, rue de Tilsitt – 75017 Paris – France

Career

Holder of a MSc (Master of Sciences) in chemical engineering from École Supérieure de Chimie, Physique et Électronique de Lyon (France) and an MBA from the Anderson School of Management (UCLA), Aïman Ezzat joined the Capgemini group in 1991, at Capgemini Consulting (now Capgemini Invent) where, in particular, he held the position of Global Head of Oil & Gas and Chemicals practice. Between 2000 and 2004, he managed the international operations of Genpact Headstrong Capital Markets, a consulting firm specializing in the technology used in the financial services sector, with clients based in Asia, North America and Europe. He then joined Capgemini, where he was appointed Deputy Director of Strategy in 2005, and then held several management positions: Chief Operating Officer (2007-2008) and Chief Executive Officer, Financial Services Global Business Unit (2008-2012), Chief Financial Officer (2012-2018) and then group Chief Operating Officer in 2018. He has been Chief Executive Officer of Capgemini since May 2020. In September 2021, he was named the "Best European CEO" for the technology and software category in the "2021 All Europe Executive Team" Institutional Investor annual ranking.

Positions and activities held during the 2022 fiscal year

Functions within the Air Liquide Group

- **Director:** L'Air Liquide S.A.* (member of the Audit and Accounts Committee since May 4, 2022)

Positions or activities outside the Air Liquide Group

- **Chief Executive Officer and Director:** Capgemini SE* (since May 2020) (member of the Strategy and CSR Committee)
- **Chairman:** Capgemini Service SAS (since May 2020); Capgemini Latin America SAS (since May 2020); Sogeti France 2005 SAS (since April 30, 2018)
- **Chairman and Chief Executive Officer:** Capgemini North America, Inc. (USA) (since May 2020)
- **Chairman of the Board of Directors:** Capgemini America, Inc. (USA) (since May 2020)
- **Chairman of the Supervisory Board:** Capgemini NV (Netherlands) (since November 27, 2020)
- **Director:** Purpose Global PBC (United States) (since April 2020); Capgemini International BV (Netherlands) (since May 2020); Capgemini Technology Services India Limited (since January 19, 2021)

Positions and activities held during the last five years and that have expired

2021

- **Chairman:** Altran Technologies SAS (until June 7, 2021)

2020

- **Senior Executive Vice President:** Capgemini SE (until May 2020)
- **Director:** Sogeti UK Ltd. (United Kingdom) (until July 2020); Capgemini Espana S.L. (Spain) (until July 2020); Capgemini Solutions Canada Inc. (Canada) (until June 2020); Capgemini Technologies LLC (United States) (until June 2020); Capgemini UK Plc (United Kingdom) (until July 2020); Capgemini (Hangzhou) Co. Ltd. (China) (until November 2020); Restaurant Application Development International (United States) (until June 2020); Radi Holding LLC (United States) (until June 2020)
- **Member of the Supervisory Board:** Sogeti Nederland BV (Netherlands) (until November 27, 2020)

2019

- **Director:** Capgemini Singapore PTE Ltd (Singapore) (until November 2019); Capgemini Hong Kong Ltd (China) (until October 2019); Capgemini Canada Inc. (Canada) (until March 2019); Gestion Capgemini Quebec Inc. (Canada) (until March 2019); Capgemini Australia PTY Ltd (Australia) (until April 2019); Sogeti Sverige AB (Sweden) (until June 2019); Sogeti Sverige MITT AB (Sweden) (until November 2019); CGS Holding (United Kingdom) (until February 2019)

2018

- **Director:** Capgemini Italia S.P.A. (USA) (until April 2018); Capgemini Brasil S.A. (Brazil) (until April 2018); Capgemini Asia Pacific PTE Ltd (Singapore) (until March 2018)

2017

- **Director:** Capgemini Financial Services Canada Inc. (Canada) (until January 2017)

* Listed company.

N.B.: For information regarding independence criteria, please refer to this Universal Registration Document –pages 139 to 142.



Bertrand DUMAZY

Independent Director – Member of the Appointments and Governance Committee

Nationality: French

Born on July 10, 1971

Date of first appointment: May 2021

Start of current term: May 2021

End of current term: 2025 (General Meeting to approve the financial statements for the fiscal year ending December 31, 2024)

Number of shares owned as of December 31, 2022: 550

Business address: EDENRED – 14-16, boulevard Garibaldi – 92130 Issy-les-Moulineaux – France

Career

Bertrand Dumazy is a graduate of ESCP Europe and holds an MBA with distinction from Harvard Business School. He started his career in 1994 as a consultant with Bain & Company, first in Paris and later in Los Angeles. He then worked as an Investment Director of BC Partners in 1999. In 2002, he joined the Neopost group. Initially Head of Marketing and Strategy, he was appointed Chairman and Chief Executive Officer (CEO) of Neopost France in 2005 and then Executive Vice President, Finance for the Neopost group in 2008. In 2011, he became President and CEO of Deutsch, a world leader in high-performance connectors, a position held until the group was acquired by TE Connectivity. In 2012, he joined Materis as Executive Vice President then CEO and eventually President and CEO of the group, renamed Cromology. In October 2015, he was appointed Chairman and CEO of the Edenred group.

Positions and activities held during the 2022 fiscal year

Functions within the Air Liquide Group

- **Director:** L'Air Liquide S.A.* (member of the Appointments and Governance Committee since May 2022)

Positions or activities outside the Air Liquide Group

- **Chairman and Chief Executive Officer:** Edenred SE*
- **Director:** Neoen SA* – France (Chairman of the Appointments and Remuneration Committee)

Positions and activities held during the last five years and that have expired

2021

- **Director:** Terreal SAS – France (until April, 28 2021)
- **Chairman of the Supervisory Board:** Union Tank Eckstein GmbH & Co. KG – Germany (an Edenred group company) (until April 28, 2021)
- **Chairman:** PWCE Participations SAS – France (an Edenred group company)

* Listed company.

N.B.: For information regarding independence criteria, please refer to this Universal Registration Document – pages 139 to 142.

NEW CANDIDATES PROPOSED TO THE GENERAL MEETING OF MAY 3, 2023

Catherine GUILLOUARD

Independent Director

Nationality: French

Born on January 23, 1965

Business address: Ingenico – 13 rue Pagès – 92150 Suresnes – France

Career

Catherine Guillaud is a graduate of the Institute of Political Studies of Paris and the École Nationale d'Administration (1991/93), and holds a PhD of European laws (Panthéon-Sorbonne). She began her career in 1993 at the Ministry of Economy in the French Treasury, working for the department in charge of the Africa – CFA zone and later in the Banking Affairs Department. She joined Air France in 1997 as IPO Senior Project Manager. She was subsequently appointed Deputy Vice-President Finance Controlling in 1999, Senior Vice-President of Flight Operations in 2001, Senior Vice-President of Human Resources in 2003 and Chief Financial Officer in December 2005. In September 2007, she joined Eutelsat as Chief Financial Officer and member of the Group Executive Committee. Catherine Guillaud joined Rexel in April 2013 as Chief Financial Officer and between May 2014 and February 2017 she was Deputy Chief Executive Officer of Rexel. Between August 2017 and September 2022, she was Chairwoman and Chief Executive Officer of RATP Group, one of the leading urban transportation operators in the world, where she launched a major investment and transformation plan and implemented the public transportation decarbonation plan. She was appointed as Chairwoman of Ingenico, a leading electronic payment services company, in October 2022.

Positions and activities held during the 2022 fiscal year

Positions or activities outside the Air Liquide Group

- **Director:** Airbus SE* (since April 2016) (Chair of the Audit Committee since April 2019 ; member of the Ethics, Compliance & Sustainability Committee)
- **Member of the Supervisory Board:** KPN* (since April 2020 ^(a)) (member of the Strategy & Organization Committee and Chair of the Audit Committee since April 2021)
- **Chairwoman:** Ingenico (since October 2022)
- **Director:** Lottomatica (since October 2022)
- **Chairwoman and CEO:** RATP (from August 2017 to September 2022 ^(b))
- **Chairwoman of the Supervisory Board:** RATP DEV (from 2017 to September 2022 ^(b))

Positions and activities held during the last five years and that have expired

- **Director:** Engie* (from April 2015 to May 2019) (member of the Strategy, Investment and Technology Committee)
- **Vice-Chairwoman of the Supervisory Board:** SYSTRA (from 2017 to 2021)

(a) Until April 2023, as Ms Catherine Guillaud indicated that she would step down from KPN's Supervisory Board at that date.

(b) In September 2022, she stepped down from her functions at RATP for personal reasons.

* Listed company.

Christina LAW**Independent Director****Nationality:** Chinese (Hong Kong)

Born on January 17, 1967

Business address: 43 Holland Park, Singapore 249487**Career**

Christina Law is a graduate of University of Hong Kong with a Bachelor in Social Science, Major in Economics and Political Sciences, and holds a Master of Business Administration from INSEAD. She started her career in 1988 at Shell Hong Kong as an Oil Analyst before being promoted as Manager in the Chemical Division. After completing her Master degree in France, she joined Procter & Gamble where she held various marketing leadership positions first in Switzerland then in Singapore as Marketing Director responsible for the Asia Pacific region. In 2005, she joined Johnson and Johnson, the world's largest and most broadly based healthcare company, based in Singapore. She held a number of senior executive positions, including Regional Director of Baby Care, Country Manager of Singapore, Vice President Beauty Care Asia Pacific and later as Vice President Neutrogena Worldwide. From 2012 to 2019, she worked in General Mills Inc, a leading global manufacturer and marketer of branded consumer foods, first as Region President for Asia, Middle East, Africa and subsequently as Group President leading all of Asia and Latin America region. Since 2019, she has been CEO of Raintree Group of Companies. Christina Law is a Board Director of Novo Nordisk, a global healthcare company leading in developing medicines against diabetes and other serious chronic diseases, since March 2022. She is also a Board Director of INSEAD since 2016.

Positions and activities held during the 2022 fiscal year**Positions or activities outside the Air Liquide Group**

- **Director:** Novo Nordisk* (since March 2022) (Member of the Audit Committee)
- **Director:** Greenfields Dairy (since 2021)
- **Chief Executive Officer and Director:** Raintree Group Limited and Raintree Investment Pte Ltd. (since 2019)
- **Director:** INSEAD Business School (since 2016) (Member of Nomination and Remuneration Committee)

Positions and activities held during the last five years and that have expired

- **Group President, Asia and Latin America :** General Mills* (until 2019)

* Listed company.

Alexis PERAKIS-VALAT**Independent Director****Nationality:** French and Greek

Born on July 3, 1971

Professional address: L'Oréal – 41 rue Martre – 92110 Clichy – France**Career**

A graduate of HEC, Alexis Perakis-Valat joined L'Oréal, the world's leading cosmetics group, in 1994 as Product Manager. He became Marketing Director of L'Oréal Paris and then held various strategic positions within the group in Europe and the United States: General Manager Garnier/Maybelline Belgium from 1999 to 2001, General Manager of L'Oréal Paris Spain from 2001 to 2003, General Manager of SoftSheen-Carson in the United States from 2003 to 2005, General Manager of L'Oréal Germany from 2005 to 2009. He took over as General Manager Europe for the Consumer Products Division in 2009, and, in September 2010, he was appointed Chief Executive Officer of L'Oréal in China, based in Shanghai. In 2013, his responsibilities were extended to include the whole of Asia Pacific and he became a member of the group's Executive Committee. Since September 1, 2016, Alexis Perakis-Valat has been President of the Consumer Products Division, a major division of L'Oréal. He is involved in the major transformations that reinforce L'Oréal's leadership, notably in three key areas: digital, environmental & social responsibility, and development of the distribution channels.

Positions and activities held during the 2022 fiscal year**Positions or activities outside the Air Liquide Group**

- **President of the Consumer Products Division and Member of the Executive Committee** L'Oréal* (since 2016)

Positions and activities held during the last five years and that have expired

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* Listed company.

Michael H. THAMAN**Independent Director****Nationality:** American

Born on March 5, 1964

Business address: 27 Broadway, Suite A – Toledo OH 43604 United States**Career**

Michael H. Thaman is a graduate of Princeton University with a Bachelor of Science in Electrical Engineering and Computer Science. He began his career in 1986 with Mercer Management Consulting, where he became Vice President in the New York office. In 1992, Michael Thaman began his nearly 30 year career with Owens Corning, a global building and industrial materials leader, where he held a variety of senior leadership positions including VP and President, Engineered Pipe Systems from 1997 to 1998 and Exterior Systems Business from 1999 to 2000, and Senior VP and Chief Financial Officer from 2000 to 2007. From 2007 to 2019, Michael H. Thaman served as Chairman and Chief Executive Officer of Owens Corning, and was Executive Chairman from 2002-2020, a period during which Owens Corning became one of the top-rated US companies on ESG criteria. Michael H. Thaman has been a Director of NextEra Energy, a major US based utility company, from 2003 to 2014, a decade during which the company developed a clean energy growth strategy.

Positions and activities held during the 2022 fiscal year**Positions or activities outside the Air Liquide Group**

- **Director:** Sherwin-Williams* (since May 2017) (Member of the Compensation and Management Development Committee)
- **Director:** Kohler Co. (since May 2014)
- **Director:** UL Solutions Inc. (since May 2021)

Positions and activities held during the last five years and that have expired

- **Chairman and Chief Executive Officer (from 2007 to 2019) and Executive Chairman (2002-2020):** Owens Corning*
- **Chief Executive Officer:** UBQ Materials (2020)

* Listed company.

RATIFICATION OF THE TEMPORARY APPOINTMENT MADE BY THE BOARD OF DIRECTORS

Monica de VIRGILIIS

Independent Director

Nationality: Italian and French

Born on July 20, 1967

Business address: SNAM S.p.A. – Piazza Santa Barbara, 7, 20097 San Donato Milanese MI, Italy

Career

Monica de Virgiliis graduated from the Polytechnic of Turin with a degree in electronic engineering. She started her career in 1993 at Magneti Marelli (Fiat Group) as a production engineer. In 1996, she joined the CEA in Italy, where she was in charge of developing partnerships with Italian companies. In 2001, she began a 15-year career at STMicroelectronics, a leading international semiconductor group based in Geneva, where she held various managerial positions, including General Manager of the wireless multimedia division, and ultimately Corporate Director of Strategy and Development. In 2015-2016, Monica de Virgiliis was Managing Director of the Industrial Microcontroller Division of Infineon, a German semiconductor group based in Munich. Throughout her career in the field of new technologies, Monica de Virgiliis has alternated between operational and strategic positions on a global scale and has played a key role in the transformation of business models in markets highly impacted by digitalization. In 2017, Monica de Virgiliis decided to apply her technological skills to energy transition. She was Director of Strategy at CEA (Commissariat à l'Energie Atomique et aux Energies Alternatives) in Paris from 2017 to 2019. In 2019, in collaboration with the World Economic Forum, she founded Chapter Zero France, a non-profit association aiming to raise awareness of climate issues among non-executive directors, of which she is Chair.

Positions and activities held during the 2022 fiscal year

Positions or activities outside the Air Liquide Group

- **Chairwoman:** SNAM* (since April, 2022) (Member of the Board since 2016; Chair of the Remuneration Committee from 2016 to 2019)
- **Member of the Supervisory Board:** ASM International* (since 2020^(a)) (Member of the Audit Committee)

Positions and activities held during the last five years and that have expired

- **Director:** SARAS* (Member of the Audit Committee) (from 2021 to 2022)
- **Director:** GEODIS (Member of the Audit Committee) (from 2018 to 2021)
- **Director:** Prysmian Group (Chair of the Appointments, Remuneration and Sustainability Committee) (from 2015 to 2021)

(a) Until May 2024, as Ms Monica de Virgiliis already announced her decision not to seek a second term as Supervisory Board member of ASM.
N.B.: Georg Fischer* announced that Ms. Monica de Virgiliis will be proposed as Board member in April 2023.

* Listed company.

REMUNERATION OF L'AIR LIQUIDE S.A. CORPORATE OFFICERS

This section includes a complete description of the components of remuneration for the corporate officers of L'Air Liquide S.A., including the following components on which the General Meeting of May 3, 2023, is invited to vote:

- with regard to the Chairman and Chief Executive Officer (from January 1 to May 31, 2022): the components which make up the total remuneration and the benefits of all kinds paid during 2022 or awarded in respect of 2022. These components are described on pages 210 to 216 of this Universal Registration Document and are the subject of the 11th resolution proposed to the General Meeting ⁽¹⁾;
- with regard to the Chief Executive Officer (from June 1 to December 31, 2022): the components which make up the total remuneration and the benefits of all kinds paid during 2022 or awarded in respect of 2022. These components are described on pages 217 to 225 of this Universal Registration Document and are the subject of the 12th resolution proposed to the General Meeting ⁽¹⁾;
- with regard to the Chairman of the Board of Directors (from June 1 to December 31, 2022): the components which make up the total remuneration and the benefits of all kinds paid during 2022 or awarded in respect of 2022. These components are described on page 226 of this Universal Registration Document and are the subject of the 13th resolution proposed to the General Meeting ⁽¹⁾;
- with regard to the Chairman and Chief Executive Officer, the Chief Executive Officer, the Chairman of the Board of Directors and the Directors of L'Air Liquide S.A.: the components of remuneration presented in the Report on Corporate Governance pursuant to article L. 22-10-9 I of the French Commercial Code. These components are described on pages 180 to 209 of this Universal Registration Document and are the subject of the 14th resolution proposed to the General Meeting ⁽²⁾;
- with regard to all the corporate officers of L'Air Liquide S.A.: the remuneration policy applicable to corporate officers, which is presented on pages 227 to 236 of this Universal Registration Document and which is the subject of:
 - the 15th resolution for the part relating to the Chief Executive Officer (concerning Mr François Jackow),
 - the 16th resolution for the part relating to the Chairman of the Board of Directors (concerning Mr Benoît Potier), and
 - the 17th resolution for the part relating to the Directors ⁽³⁾.

The resolutions proposed to the General Meeting of May 3, 2023 are contained in Chapter 6 of this Universal Registration Document.

The information presented in this section also takes into account the provisions of the AFEP/MEDEF Corporate Governance Code for listed companies as interpreted by the Haut Comité de gouvernement d'entreprise (Application Guide to the AFEP/MEDEF Code (for which the updated version was published in June 2022); Activity report of the Haut Comité de gouvernement d'entreprise published in November 2022) and the AMF recommendations contained in the AMF Universal Registration Document Publication Guide and in the AMF Report on Corporate Governance and executive remuneration in listed companies of December 1, 2022. For a summary of the application of the AFEP/MEDEF Code, see the table in the Report on Corporate Governance, on page 159 of this Universal Registration Document.

In accordance with the AFEP/MEDEF Code, the remuneration components of the Company Officers are made public after the Board meeting during which they are approved.

⁽¹⁾ Pursuant to article L. 22-10-34 II of the French Commercial Code.

⁽²⁾ Pursuant to article L. 22-10-34 I of the French Commercial Code.

⁽³⁾ Pursuant to article L. 22-10-8 II of the French Commercial Code.

These remuneration components of the corporate officers are presented below as follows:

1. Summary of the remuneration of Company Officers;
2. Remuneration of Company Officers (including information stated in article L. 22-10-9 I of the French Commercial Code)
 - 2.1. **Remuneration of the Chairman and Chief Executive Officer (until May 31, 2022)**
 - 2.1.1. Short-term benefits;
 - 2.1.2. LTI: options and performance shares;
 - 2.1.3. Long-term commitments;
 - 2.2. **Remuneration of the Chief Executive Officer (from June 1, 2022)**
 - 2.2.1. Short-term benefits;
 - 2.2.2. LTI: options and performance shares;
 - 2.2.3. Long-term commitments;
 - 2.3. **Remuneration of the Chairman of the Board of Directors (from June 1, 2022)**
 - 2.3.1. Fixed remuneration;
 - 2.3.2. Other elements of annual remuneration;
 - 2.4. **Remuneration ratios – Annual variation in the remuneration, performance and ratios;**
3. Remuneration of the non-Executive Directors (including information stated in article L. 22-10-9 I of the French Commercial Code);
4. Elements of the 2022 remuneration of the Company Officers on which the General Meeting of May 3, 2023 is invited to vote (pursuant to article L. 22-10-34 II of the French Commercial Code):
 - 4.1. **Elements of the 2022 remuneration of the Chairman and Chief Executive Officer (from January 1 to May 31, 2022)**
 - 4.2. **Elements of the Chief Executive Officer's remuneration in 2022 (from June 1 to December 31, 2022)**
 - 4.3. **Elements of the 2022 remuneration of the Chairman of the Board of Directors (from June 1 to December 31, 2022)**
5. Remuneration policy of the Corporate Officers:
 - 5.1. **Remuneration policy applicable to Company Officers;**
 - 5.1.1. Remuneration policy applicable to Executive Officers;
 - 5.1.2. Implementation for the determination of the Chief Executive Officer's remuneration for 2023
 - 5.1.3. Remuneration policy applicable to the Chairman of the Board of Directors;
 - 5.2. **Remuneration policy applicable to Directors**

1. Summary of the remuneration of Company Officers

Table 1 below presents a summary of all remuneration components paid to the Company Officers with regard to the 2020, 2021 and 2022 fiscal years. They are then more fully described in the following tables.

TABLE 1. SUMMARY OF REMUNERATION, OPTIONS AND PERFORMANCE SHARES GRANTED TO COMPANY OFFICERS

<i>(in thousands of euros, rounded off)</i>	2020	2021	2022
Benoît Potier – Chairman and Chief Executive Officer (until May 31, 2022):			
Remuneration granted in respect of the fiscal year (see breakdown in Table 2, paragraph 2.1.1) ^(a)	2,795	3,529	1,479
Value of stock options granted during the fiscal year (see breakdown in Table 4, paragraph 2.1.2)	—	—	—
Value of performance shares granted during the fiscal year (see breakdown in Table 6, paragraph 2.1.2) ^(b)	2,250	2,250	—
TOTAL	5,045	5,779	1,479

(a) Including benefits in kind.

(b) By application of proration rules, the grants of the performance shares will be prorated with a factor of 80.5% for 2020 and 47.1% for 2021. No grant of options or performance shares was made to Mr Benoît Potier in respect of 2022.

<i>(in thousands of euros, rounded off)</i>	2022
François Jackow – Chief Executive Officer (from June 1, 2022):	
Remuneration granted in respect of the fiscal year (see breakdown in Table 2, paragraph 2.2.1) ^(a)	1,562
Value of stock options granted during the fiscal year (see breakdown in Table 4, paragraph 2.2.2)	—
Value of performance shares granted during the fiscal year (see breakdown in Table 6, paragraph 2.2.2) ^(b)	962
TOTAL	2,524

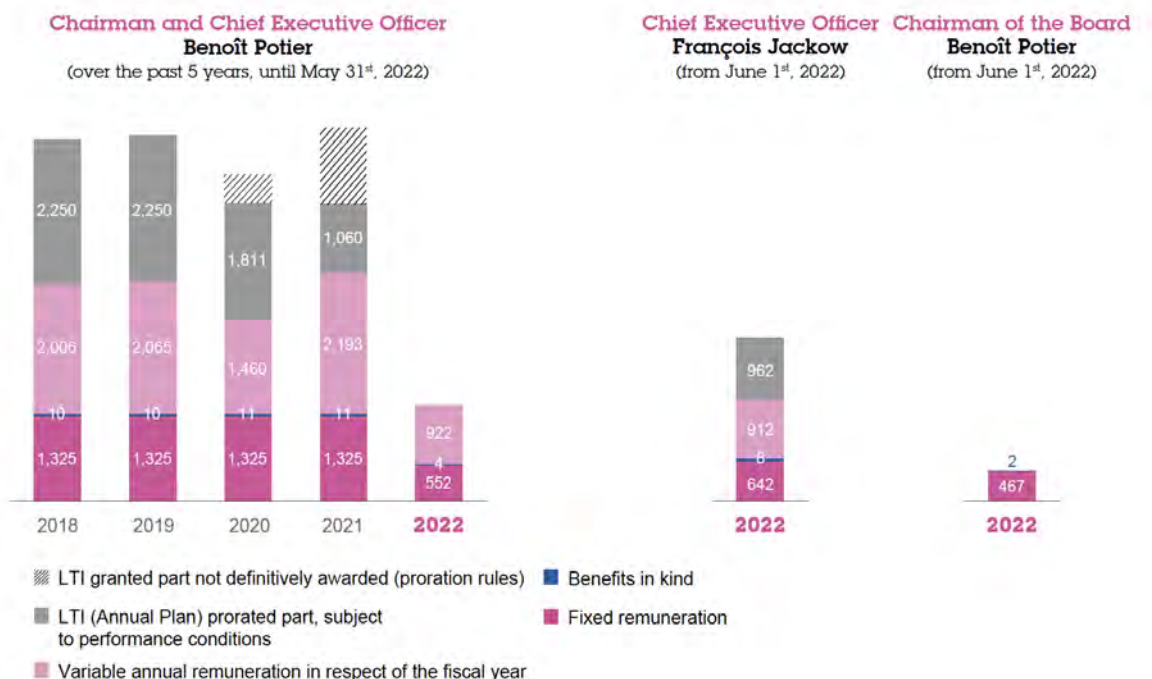
(a) Including benefits in kind.

(b) Pro-rata for the period from June 1 to December 31, 2022.

NB: For the period from January 1 to May 31, 2022, the fixed and short-term variable remuneration of Mr François Jackow in respect of his employment contract corresponds to a total amount of 458,333 euros. During this period, he also benefited from the benefits that the Group makes available to its employees. Mr François Jackow terminated his employment contract with effect from May 31, 2022.

<i>(in thousands of euros, rounded off)</i>	2022
Benoît Potier – Chairman of the Board (from June 1, 2022):	
Remuneration granted in respect of the fiscal year (see breakdown in Table 2, paragraph 2.3.1) ^(a)	468
Value of stock options granted during the fiscal year	—
Value of performance shares granted during the fiscal year	—
TOTAL	468

(a) Only fixed remuneration and benefits in kind.

BREAKDOWN OF THE REMUNERATION OF COMPANY OFFICERS:*(in thousands of euros, rounded off)*

Reminder: The Board at its February 15, 2022 meeting decided to apply to Mr Benoît Potier, in agreement with him, the proration principle of LTI grant in the event of departure (principle added in the remuneration policy of the Company Officer since 2018), as of the cessation of his term of office as Chief Executive Officer on May 31, 2022. The initial LTI grants to Mr Benoît Potier decided in 2020 and 2021 will therefore be **reduced by -19.5% for the 2020 grant and -52.9% for the 2021 grant** and will remain **subject to the performance conditions** (see page 186). In accordance with the remuneration policy approved by the General Meeting of May 4, 2022 and in application of the provisions of the AFEP/MEDEF Code, given the termination of his term of office as Chief Executive Officer, **Mr Benoît Potier did not benefit from any LTI allocation for 2022.**

2. Remuneration of the Company Officers (including information stated in article L. 22-10-9 I of the French Commercial Code)

The **remuneration policy** applicable to the Chairman and Chief Executive Officer until May 31, 2022, to the Chief Executive Officer and to the Chairman of the Board of Directors from June 1, 2022 in respect of their terms of office as decided by the Board of Directors on February 15, 2022 and presented in the Company's 2021 Universal Registration Document (pages 199 to 212) was **approved by the Ordinary General Meeting of May 4, 2022** (in resolutions 14 to 17). This General Meeting also approved the information relating to the remuneration of the Chairman and Chief Executive Officer and the Directors which was presented in the Report on Corporate Governance in the 2021 Universal Registration Document ⁽¹⁾ (13th resolution).

In 2022, the structure and principles applicable to the remuneration of Company Officers are in line with previous years, while taking into account adjustments related to the separation of functions in the succession in respect of Executive Management.

In accordance with the remuneration policy approved in 2022, the main elements of the **remuneration of the Chief Executive Officer** are as follows:

- In accordance with a recurring practice at Air Liquide, the **fixed remuneration** represents approximately **25%**, the **target variable remuneration** approximately **35%** and the long-term incentive (hereafter "LTI") granted approximately **40%** of the total annual remuneration. Accordingly, the weight of the variable remuneration and the LTI, which are subject to performance conditions, represents approximately **75%** of this total remuneration. Due to the cessation of his term of office as Chief Executive Officer, Mr Benoît Potier will not be awarded any LTI for 2022. The fixed portion of the Chairman and Chief Executive Officer's remuneration for the period from January 1 to May 31, 2022 therefore represents 40% and the variable portion 60% of his total annual target remuneration.

The collective pension insurance contract with individual and optional subscription and the termination indemnity are also subject to performance conditions.

The performance conditions, which are described below, reflect the **Group's ambition to achieve profitable growth over the long term** by combining financial and extra-financial performance.

⁽¹⁾ Information listed in article L. 22-10-9 I of the French Commercial Code.

■ **Variable remuneration:**

- the variable part is expressed as a **target** variable remuneration and as a **maximum** (as a % of the fixed remuneration). For the quantifiable criteria, the target variable remuneration corresponds to an achievement of 100% of the target objective set at the start of the year. The target objectives fixed are demanding and are completely consistent with the trajectory of the ADVANCE company program;
- a **greater relative weight is given to the quantifiable criteria** as compared to the qualitative criteria;
- a **weighting is allocated to each of the qualitative criteria**.

■ **LTI:**

- **All the LTI granted to the Executive Officers are subject to performance conditions calculated over a period of three years.** Since 2020, the LTI plans have included a performance condition linked to the Group's climate objectives in addition to the ROCE and TSR criteria.
- Limits on the grants to Executive Officers: in accordance with the authorizations given by the General Meeting on May 4, 2022, the number of performance shares granted to the Executive Officers may not exceed 0.1% of the share capital and the number of stock options, if any, may not exceed 0.2% of the share capital. The Board of Directors also sets annual limits for the grants, which remain well below these sub-limits, it being noted that, as stated above, the LTI must represent approximately 40% of the total target annual remuneration for the Executive Officer.
- The other principles which apply to the LTI are unchanged (**proration of the LTI** in the event of the Executive Officer's departure during the period of assessment of the performance conditions, no allocation at the time of departure, the level of requirement of the objectives, the rules which apply to the Company Officers as described on pages 196 to 198)

Finally, as in 2021, the Board of Directors decided on September 29, 2022 only to grant performance shares (instead of a mix of stock options and performance shares) to all the beneficiaries, in order to simplify and standardize the LTI plan.

The Chief Executive Officer does not receive any remuneration in his capacity as Director.

The main components of the separate remuneration policy for the Chairman of the Board of Directors, approved in 2022, are as follows:

- The Chairman of the Board receives only fixed remuneration, to the exclusion of any variable and long-term remuneration (notably LTI) and any exceptional remuneration.
- The Chairman of the Board does not receive any remuneration as a Director.

The elements of remuneration for Company Officers, as determined by the Board of Directors pursuant to the remuneration policy approved by the General Meeting on May 4, 2022, are described below.

2.1. REMUNERATION OF THE CHAIRMAN AND CHIEF EXECUTIVE OFFICER (UNTIL MAY 31, 2022)

2.1.1. SHORT-TERM BENEFITS

The gross annual remuneration before tax of the Chairman and Chief Executive Officer ⁽²⁾, including the benefits in kind, amounts, for the 2020, 2021 and 2022 fiscal years, to the figures shown in Table 2 below:

TABLE 2. SUMMARY OF THE REMUNERATION OF THE CHAIRMAN AND CHIEF EXECUTIVE OFFICER (UNTIL MAY 31, 2022)

	For information, reminder of previous years:				2022	
	2020		2021		Amounts awarded	Amounts paid
	Amounts awarded	Amounts paid	Amounts awarded	Amounts paid		
<i>(in thousands of euros, rounded off)</i>						
Benoît Potier Chairman-Chief Executive Officer ^{(a) (b)}						
■ Fixed remuneration	1,325	1,325	1,325	1,325	552 ^(c)	552
<i>including remuneration in respect of his term of office as Director</i>	—	—	—	—	—	0
■ Variable annual remuneration	1,460	2,065	2,193	1,460	922 ^(c)	2,193 ^(d)
■ Benefits in kind	10	10	11	11	4	4
TOTAL	2,795	3,400	3,529	2,796	1,479	2,749

(a) Pursuant to the recommendations of the AFEP/MEDEF Code of Corporate Governance, Mr Benoît Potier resigned from his employment contract in May 2010. Mr Benoît Potier receives all of his remuneration for his corporate office.

(b) During the 2022 fiscal year, the Company also paid contributions to external organizations for the benefit of Mr Benoît Potier (i) for the year 2021 under the collective life insurance policy (222,134 euros) and the collective pension insurance contract (340,000 euros, divided between a payment to the insurer and a payment to Mr Benoît Potier to cover social security contributions and taxes due on payments made to the insurer), as well as (ii) the contributions relating to the period from January 1 to May 31, 2022 under the defined contribution pension plan (4,066 euros) and the collective death and disability benefits plan (4,237 euros), i.e. a total amount of 570,437 euros. In 2023, the Company will also pay contributions for the period from January 1 to May 31, 2022 under the collective life insurance policy (91,897 euros) and, under the collective pension insurance contract, for an amount of 141,667 euros (split between a payment to the insurer and a payment to Mr Benoît Potier to cover social security contributions and taxes due on payments made to the insurer). Details of these plans are set forth below.

(c) The amount allocated for the year 2022 is calculated on a pro-rata basis for the period from January 1 to May 31, 2022.

(d) Amount paid in 2022 already approved by the General Meeting of May 4, 2022 (14th resolution).

⁽²⁾ The Chairman and Chief Executive Officer did not receive any remuneration from Group companies other than L'Air Liquide S.A.

Within the fixed remuneration and the variable remuneration in respect of 2022, after recording the achievement of the criteria for the variable remuneration in respect of the 2022 fiscal year by the Board of Directors on February 15, 2023, the fixed remuneration represents 37% and the variable remuneration represents 63%⁽³⁾. For the record, in respect of 2021, the fixed remuneration represented 37.6% and the variable remuneration (paid in 2022) represented 62.4%.

A. Fixed remuneration for 2022

In accordance with the policy established by the Board of Directors on February 15, 2023, and approved by the General Meeting on May 4, 2022, the fixed remuneration was determined taking account of the level of responsibilities, the experience in executive management duties and market practices.

As announced, the Chairman and Chief Executive Officer's annual fixed remuneration for 2022 amounts to: **1,325,000 euros, unchanged since 2018**. The latter, **calculated pro rata** over the period from January 1 to May 31, 2022, amounts to **552,083 euros**.

B. Variable remuneration for 2022

The principles and criteria for the Chairman and Chief Executive Officer's variable remuneration, as decided upon by the Board of Directors on February 15, 2022 were approved by the General Meeting on May 4, 2022 (14th resolution).

The variable portion of the Chairman and Chief Executive Officer's remuneration due in respect of 2022 was calculated pro rata for the period from January 1 to May 31, 2022. On the proposal of the Remuneration Committee, the Board of Directors on February 15, 2023 assessed the performance of the Company Officer in 2022 over the period.

The criteria for the variable remuneration, their weighting and their rate of achievement are detailed in the following summary table (p. 184).

Quantifiable financial criteria

In accordance with the remuneration policy approved by the General Meeting of May 4, 2022, the variable portion for 2022 is based on two financial criteria: increase in recurring earnings per share excluding exchange rates (hereinafter "**recurring EPS**") and comparable growth in consolidated **revenue**.

The increase in the recurring EPS criterion makes it possible to take into account all the items in the income statement. The criterion of an increase in sales reflects the momentum of the activity. These two criteria, growth in revenue and the recurring EPS, reflect the Group's ambition to achieve profitable growth. Moreover, the achievement of the efficiency objectives contributes to the increase in the recurring EPS.

For each criterion, the Board of Directors had defined a target objective. The target objectives were exacting and were completely consistent with the trajectory of the main objectives of the company program.

A formula adopted by the Board makes it possible to calculate the amount of the variable remuneration due (within a maximum limit) by taking into account, on the basis of the Consolidated financial statements for the fiscal year, the value achieved for the criterion as compared to the target objective set. Thus, in the event of a performance that exceeds the objective set, the value of the variable part is adjusted upward within the maximum limit set for each criterion. **In the event of a performance that is below the lower limit set for each objective, the variable remuneration corresponding to this criterion is equal to zero.** The achievement of each performance condition is assessed without any set-off between criteria.

Furthermore, according to this formula, the **rate of achievement** of each objective is calculated **linearly** as follows:

- an initial linear gradient between the lower limit of the objective, corresponding to the trigger threshold (0% below this threshold) and the target (corresponding to a 100% achievement of the objective);
- a second linear gradient between the target (100%) and the maximum achievement level (116% of the target).

The objectives are not made public for confidentiality reasons. Nevertheless, the rate of achievement of each objective for the variable remuneration (as a percentage of the fixed remuneration and as a percentage of the target variable remuneration allocated to that criterion) is communicated in the summary table – page 184.

Following an excellent 2022 year, the targets for the quantifiable criteria objectives were achieved at the maximum threshold.

Qualitative personal criteria

Pursuant to the remuneration policy approved by the General Meeting on May 4, 2022, the variable remuneration for 2022 is also based on the following (qualitative) personal criteria:

- **Corporate Social Responsibility** (hereinafter "CSR"):
 - Safety and reliability: continue efforts to improve safety (lost-time accident frequency rate, road traffic accidents and job-related accidents).
 - Roll-out of Action plans linked to the Group's new sustainability objectives; Progress made on the various key indicators and alignment with the 2025 trajectory linked to these objectives.
- **Organization/Human Resources** (management succession plans, hand-over in the context of the succession).
- **Individual performance**: this criterion responds to the Board of Directors' desire to keep a part of the variable remuneration subject to the Board's assessment, in order to take account of the unpredictability of the environment. This may be beneficial to the Executive Officer, if the Company is facing an unfavorable environment which was not anticipated at the time the objectives were set, or disadvantageous if the environment ultimately turns out to be more favorable than anticipated.

A weight, identical for both target and maximum amounts, is set for each qualitative criterion.

For 2022, after a detailed analysis by the Remuneration Committee of the achievements for the fiscal year, the Board of Directors noted the following elements concerning each of the personal criteria:

⁽³⁾ At the target the fixed remuneration represents 40% and the variable remuneration 60%.

CSR:

Performance was considered excellent:

- **Safety and reliability**

Based on the estimated hours worked, the lost-time accident frequency rate for Group employees stood at 0.94 in 2022, compared to 1.06 in 2021. This indicator has improved compared to 2021, with a significant reduction (-11%) in the number of workplace accidents involving Group employees. A similar trend can be observed for subcontractors. Overall, 26 fewer people (whether employees or subcontractors) were injured in connection with Group activities in 2022, by comparison with 2021.

2022 was marked by the death of a subcontracted driver involving a road traffic accident. For the record, 2021 had been marked by the deaths of four subcontractors.

In 2022, under Mr Benoît Potier's supervision, the main safety programs launched in previous years were continued, notably the IMS Streamlining program, the major cornerstone of industrial safety management for the Group. In this post-Covid period, the main focus was on continuity. Mr Benoît Potier, together with all the Executive Committee members, paid considerable attention to Process Safety issues, notably by monitoring the implementation of an ambitious plan to upgrade more than 600 air separation units.

It made it possible to improve safety at the Group's production sites. Its implementation continued in 2022. Almost all of the 600 units will have been upgraded over the course of these three years. The remaining units concerned will be upgraded at the start of 2023. It can be noted that Air Liquide played a leading role in influencing its peers and inviting them to work together to develop harmonized international standards for everyone's benefit.

- **Roll-out of Action plans linked to the Group's new sustainability objectives; Progress made on the various key indicators and alignment with the 2025 trajectory linked to these objectives**

The ADVANCE Plan communicated in March 2022 confirmed the positioning of sustainable development issues at the heart of the Group's development strategy, following on from the ACT program announced by Mr Benoît Potier at the Sustainability Day on March 23, 2021.

Based on its climate commitment and the first stages of its implementation, the CDP awarded Air Liquide, in January 2022, the highest level ("Leadership Level") for its environmental commitment, which includes some of the most ambitious sustainability objectives in the sector.

In 2022, work continued and considerable progress has been made, with regard to each of the ACT program commitments.

- **ACT for the climate:**

Governance, reporting and processes for monitoring and managing CO₂ emissions were established throughout the Group at the start of 2022. Annual CO₂ budgets, which may be positive or negative depending on local factors, are now allocated to the operating entities every year and instruments have been in place for quarterly monitoring of compliance with these budgets and the impact of the activities on the 2025 Carbon trajectory since the start of the year.

During the first half, several projects were launched that contribute to the decarbonization of the Group's assets or those of its customers, and renewable energy supply agreements started to be signed around the world, following on from the previous fiscal year (construction by Air Liquide of its largest biomethane production unit in the world in the United States; memoranda of understanding signed in South Korea to explore the use of hydrogen in the decarbonization of the aviation industry, and the development of the hydrogen supply chain for mobility markets; development of hydrogen mobility in Europe; development of shipping solutions for carbon management; execution of a ten-year renewable energy purchase agreement in Italy in May 2022 with Shell Energy Europe Limited). In March 2022, Air Liquide received support from the French State for its 200 MW electrolyzer project in Normandy for which it has requested a substantial European subsidy and, in April 2022, the project to transform EQIOM's Lumbres plant, in the Hauts-de-France region, into one of the first carbon-neutral cement plants in Europe, was selected by the European Commission for funding through its Innovation Fund.

In May 2022, Air Liquide's trajectory to reduce CO₂ by 2035 was validated by the Science Based Targets initiative (SBTi) as being in line with a "below 2°" Scenario consistent with the Paris Agreement.

Finally, Mr Benoît Potier pursued his actions and maintained his involvement on the Hydrogen Council, which he co-chaired for 5 years up until the end of 2021, and for which he is now the official representative in Europe, and on the National Hydrogen Council of which he is co-Chair. He continued to play an active role in the work of the ERT (European Round Table), notably on topics related to the energy transition and Hydrogen.

- **ACT for Health:**

Pursuant to the ADVANCE Plan, the Group's objective in Mature Countries is to improve the quality of life of patients living at home with chronic diseases. In this sector, the teams have continued to develop personalized care pathways that are tailored to comply with local regulations. The proportion of patients receiving care who benefited from these pathways increased significantly over the fiscal year.

In low and middle-income countries, the objective is to provide an increasing number of people with access to medical oxygen. Once again, thanks to new projects, notably in South Africa, the number of people benefiting from the "Access Oxygen" program increased in line with the previous fiscal year.

- **ACT for the whole of Society:**

The programs to increase gender diversity within the population of Managers and Professionals continued, even if the result of 31.5%, at the end of 2022, is slightly lower than that expected for 2022, and the objective is not called into question.

The objective has been set to extend a common basic social security cover to all employees and the roll-out of the Citizen at Work program, allowing employees to participate in social or societal projects during their working hours, has also been determined and is well on track.

The progress described above confirms that the Group has been well-positioned, since the start of 2022, with regard to the various pillars of the ACT Plan, in line with the stated goals for 2025.

Organization and Human Resources:

Work on governance and the preparation for the succession to the Company's General Management intensified with the preparation of the February 2022 Board meeting which finalized the new governance structure, and continued up until the General Meeting at which it was presented and approved. At the same time, substantial work was carried out in the first part of the year to prepare for the changeover of management. The Human Resources objectives of the ADVANCE plan were finalized in close collaboration with Mr François Jackow and the talent management policy, in line with earlier reviews, was also transferred, in particular to anticipate changes in management teams. Close attention was paid to the changes to the Executive Committee, in preparation for the handover to Mr François Jackow and the transfer of his previous responsibilities, with notably the appointment of Mr Ronnie Chalmers, Vice President of the Africa, Middle-East and India hub, as a member of the Executive Committee.

Numerous specific "Handover" sessions were organized on a regular basis to ensure a smooth transition and in particular the handover of subjects that were not previously under the responsibility of Mr François Jackow in his role as Executive Vice President.

Individual performance:

Mr Benoît Potier's individual performance is considered excellent despite a mixed global context (start of the war in Ukraine, inflation, energy crisis...). His efforts to achieve the Group's objectives while at the same time preparing for his succession, the handover of responsibilities and the implementation of the new governance were highly successful. Performance in this regard was assessed at 100%.

SUMMARY TABLE OF THE VARIABLE REMUNERATION FOR 2022

Indicator	Approved elements by the General Meeting in 2022:				Achievement ^(d)			
	Target ^(a)		Maximum		As a % of the target remuneration for this criterion	As a % of the fixed remuneration	As a % based on 100	In thousands of euros (rounded off)
	As a % of the fixed remuneration	As a % based on a 100	As a % of the fixed remuneration	As a % based on a 100				
Financial criteria (quantifiable) including:	105	70	122	73	116	122	73	674
Increase in recurring net earnings ^(b) excluding the foreign exchange impact, per share (recurring EPS)	75	50	87	52	116	87	52	480
Comparable growth in consolidated revenue ^(c)	30	20	35	21	116	35	21	193
Personal criteria (qualitative) including:	45	30	45	27	100	45	27	248
CSR:								
<ul style="list-style-type: none"> ■ Safety and reliability: continue efforts to improve safety (lost time accident frequency rate, road traffic accidents and job-related accidents) ■ Roll-out of the action plans relating to the Group's new sustainable development objectives; Progress made concerning the various key indicators and harmonization with the 2025 trajectory for these new objectives 	15	10	15	9	100	15	9	83
Organization/Human Resources (management succession plans, hand-over in the context of the succession)	15	10	15	9	100	15	9	83
Individual performance: assessment by the Board of Directors, notably in light of the external environment for the year	15	10	15	9	100	15	9	83
TOTAL (FINANCIAL AND PERSONAL CRITERIA)	150	100	167	100	111	167	100	922

(a) The target corresponds to 100% achievement of the performance criterion.

(b) Excluding significant and exceptional transactions that do not impact the operating income recurring. The calculation is based on the 2022 recurring net profit (Group share) excluding the foreign exchange impact (as compared to 2021), reconciled in chapter 1 – page 62 of this 2022 Universal Registration Document.

(c) Excluding significant scope impact, foreign exchange impact and energy. See reconciliation in chapter 1 – page 61 of this 2022 Universal Registration Document.

(d) As per decision of the Board of Directors on February 15, 2023.

In total, the amount of the variable remuneration **calculated pro rata** over the period from January 1 to May 31, 2022 is therefore higher than the target and amounts to 921,979 euros. On an annualized basis, it is up very slightly by 0.9% compared to the variable remuneration for 2021. This variation between 2021 and 2022 is the result of exceeding the financial targets for the year 2022 slightly more than the same excess in 2021.

The total amount of the variable remuneration due for the 2022 fiscal year will be paid in 2023, after approval of the financial statements by the General Meeting, it being noted that its payment is conditional on the approval by a General Meeting of the elements of remuneration paid during or awarded in respect of the 2022 fiscal year to Mr Benoît Potier, in his quality as Chairman and Chief Executive Officer.

C. Total fixed and variable remuneration for 2022 – Changes

In light of the above, the fixed and variable remuneration of the Chairman and Chief Executive Officer for the fiscal year 2022 in annualized value is almost stable (+0.6%) compared to 2021 ⁽⁴⁾.

D. Other elements of annual remuneration

The benefits in kind paid to the Company Officer in 2022 include the use of a company car, as well as the contributions paid for unemployment insurance for company managers and corporate officers during the term of office as Chairman and Chief Executive Officer exercised by Mr Benoît Potier for the 2022 fiscal year, namely from January 1 to May 31.

2.1.2. LTI: OPTIONS AND PERFORMANCE SHARES

In accordance with the provisions of the AFEP/MEDEF Code, **Mr Benoît Potier did not benefit from the 2022 LTI award** in respect of his term of office as Chairman and Chief Executive Officer.

However, Mr Benoît Potier remains subject to the shareholding and share ownership obligations for shares and options resulting from plans prior to 2022 in his capacity as Company Officer and remains bound by the other rules applicable to Company Officers relating in particular to hedging transactions.

Shareholding obligation pursuant to the French Commercial Code

The shareholding obligations defined by the Board of Directors in accordance with articles L. 225-185 and L. 225-197-1 of the French Commercial Code continue to apply to Mr Benoît Potier, for subscription options and performance shares granted to him in respect of his term of office as Chairman and Chief Executive Officer from September 28, 2015 until the 2021 performance share plan.

Furthermore, the previous obligations to hold shares resulting from the exercise of stock options, decided by the Board of Directors on May 9, 2007, which apply with effect from the grant of stock options on May 9, 2007 for Mr Benoît Potier, remain in force with regard to the relevant stock option plans, up until the September 22, 2014 stock option plan inclusive.

The application of this rule was reported to the Board of Directors on February 15, 2023.

Additional share ownership obligation – Recommendation made by the AFEP/MEDEF Code

Mr Benoît Potier also continues to be subject to the shareholding rule defined by the Board of Directors for Company Officers, in accordance with an internal rule defined by the Board since 2008, according to which the Chairman and Chief Executive Officer must hold in registered form a number of shares equivalent to twice his gross annual fixed remuneration. This obligation will remain in force until it is exceeded by the effect of the rules resulting from the French Commercial Code. The number of shares required to be held is assessed as of January 1 and July 1 of each year. The Board noted that the valuation of the shares held by Mr Benoît Potier as at January 1 and July 1, 2022 was much greater than the amount required and concluded that the shareholding obligation was complied with by the Company Officer.

Recommendations encouraging the ownership of a minimum number of Company shares equivalent to 0.5 times their gross fixed annual remuneration have also been made to members of the Executive Committee since 2009.

Other rules applicable to the Company Officers

- Restriction on the exercise of stock options and the sale of performance shares during the “black-out periods” prior to the publication of the financial statements. These abstention periods open 30 days before the announcement of the annual and half-year consolidated results and 15 calendar days prior to the publication of the quarterly financial information. They end on the date of publication of the information at close of business.
- Commitment not to carry out hedging transactions with regard to the risk concerning the performance shares awarded/options arising from the exercise of options, throughout the length of their term of office. Mr Benoît Potier remains bound by this commitment for the subscription options and performance shares granted to him under his term of office as Chairman and Chief Executive Officer until the 2021 performance share plan.

TABLE 6. PERFORMANCE SHARES GRANTED DURING THE 2022 FISCAL YEAR TO THE COMPANY OFFICER

Not applicable (no performance shares granted in 2022)

Options exercised/remaining to be exercised in 2022 by the Company Officer – Performance shares that became available in 2022

TABLE 4. STOCK OPTIONS GRANTED DURING THE FISCAL YEAR TO THE COMPANY OFFICER

Not applicable (no stock options granted in 2022)

⁽⁴⁾ In absolute terms, the fixed and variable remuneration of Mr Benoît Potier for his term of office as Chairman and Chief Executive Officer for the year 2022 (i.e., from January 1 to May 31, 2022), prorata temporis, is down by 58.1% compared to the fixed and variable remuneration for the year 2021.

TABLE 5. SHARE SUBSCRIPTION OPTIONS EXERCISED DURING THE 2022 FISCAL YEAR BY THE COMPANY OFFICER

	Plan grant date	Number of options exercised during the fiscal year	Exercise price ^(a) (in euros)
Benoît Potier	N/A	0	N/A

(a) Exercise price on the date of exercise.

TOTAL ADJUSTED STOCK OPTIONS REMAINING TO BE EXERCISED BY THE COMPANY OFFICER AS AT DECEMBER 31, 2022

	Total number of outstanding adjusted options	Average price (in euros)
Benoît Potier	305,455	74.07

For more details on the adjusted number of stock options by plan, see table page 239.

TABLE 7. PERFORMANCE SHARES THAT BECAME AVAILABLE DURING THE 2022 FISCAL YEAR FOR THE COMPANY OFFICER

	Plan grant date	Number of shares that became available during the fiscal year
Benoît Potier	09/20/2017	24,051

It should be noted that, in agreement with Mr Benoît Potier and in accordance with best governance practices, the Board, at its meeting of February 15, 2022, decided to apply the principle of prorating to Mr Benoît Potier on the occasion of the termination of his term of office as Chief Executive Officer on May 31, 2022. The LTI granted to Mr Benoît Potier in 2020 and 2021 were therefore calculated pro rata, to the effect that the 2020 LTI grant to Mr Benoît Potier was reduced by -19.5% and the 2021 grant by -52.9%, while the definitive award remains subject to performance conditions and all other conditions (including shareholding obligations) continue to apply.

TABLE 8 – PAGE 238, TABLE 9 – PAGE 239 AND TABLE 10 – PAGE 241⁽⁵⁾

2.1.3. LONG-TERM COMMITMENTS

The items presented below, from which Mr Benoît Potier benefited until he claimed his pension (see below), were taken into account in the determination of his total remuneration.

A. Company pension and similar benefit obligations

In addition to the mandatory basic and supplementary pension schemes (Agirc-Arrco) with which he is, or was affiliated, Mr Benoît Potier has been authorized to benefit from various supplementary social benefit schemes set up by L'Air Liquide S.A.

1. Collective pension insurance contract with individual and optional subscription (as of January 1, 2020)

Pursuant to the PACTE Law and Ordinance No. 2019-697 of July 3, 2019, the supplementary pension plans which make the vesting of rights conditional upon the beneficiaries' presence at the Company at the time of retirement can no longer grant a right to acquire supplementary conditional rights as from January 1, 2020. For the period up until this date, Mr Benoît Potier's conditional rights under the defined benefit pension plan ("plan S") remain frozen and subject in their entirety to the pension plan regulations (see details below).

Since January 1, 2020, a collective pension insurance contract with individual and optional subscription replaced the acquisition of rights under the defined benefit pension plan above. Pursuant to the PACTE Law and Ordinance No. 2019-1234 of November 27, 2019, implementation of this new scheme for the benefit of Mr Benoît Potier was approved by the General Meeting of May 5, 2020, pursuant to the remuneration policy (11th resolution).

In this scheme, the amount paid by the Company is split between a payment to the insurer and a payment to Mr Benoît Potier intended to cover the social security contributions and taxes due on the payments made to the insurer. This amount is paid in arrears every year for the period until the end of the executive office. These contributions are deductible from the corporate income tax base and are subject to social security contributions.

This scheme was selected from among several alternatives and represented the lowest cost for the Company, being over 20% less than that of the previous defined benefit plan (see description of this plan below). For Mr Benoît Potier, it simply supplemented the rights accumulated under the aforementioned defined benefit pension plan and made it possible to maintain rights which were equivalent to those which would have existed under such plan, if it had been possible for Mr Benoît Potier to continue to acquire rights under this plan after December 31, 2019. Although, pursuant to the new legislation, this pension insurance contract is not subject to a condition of the beneficiary's presence at the Company at the end of his career, in any event, with regard to Mr Benoît Potier, the application of this condition under the defined benefit pension plan had become totally theoretical: a beneficiary who is over 55 years of age and has at least five years' length of service (which is the case for Mr Benoît Potier) shall retain his rights even if his term of office is terminated, provided that he does not resume any professional activity before his retirement. Consequently, the fact that this condition does not apply to the new mechanism is neutral in this specific situation.

The gross annual contribution amounts to approximately 10% of the target fixed and variable remuneration for 2022 (for the period January 1 to May 31, 2022), subject to the achievement of identical performance conditions to those which apply to the defined benefit pension plan, which had been determined by the Board of Directors and approved by the General Meeting of May 16, 2018 in its 10th resolution. Consequently, the total amount of contributions for a fiscal year depends on the average annual gap between the Return on Capital Employed after tax (ROCE) and the Weighted Average Cost of Capital (WACC) (net equity method), calculated (on the basis of the certified Consolidated financial statements, approved by the General Meeting) for the last three fiscal years prior to the said fiscal

⁽⁵⁾ For informational purposes.

year. For the purposes of this calculation, the gap between the ROCE and the WACC is measured for each fiscal year and the average of the three annual gaps is calculated for the last three fiscal years prior to the said fiscal year.

The performance coefficient applied to the nominal amount pursuant to the collective pension insurance contract is determined as shown in the table below, with a growth of the increase per linear segment between each of the thresholds between 100 bps and 300 bps inclusive:

Average of the annual gaps (ROCE – WACC) over three years in bps ^(a)	Performance coefficient applied to the nominal amount
≥ 300	100%
250	66%
200	50%
100	25%
< 100	0%

(a) bps: basis points.

Finally, the pension rights acquired under this contract are taken into account when determining the upper limit of 45% of the Reference Remuneration that applies to the defined benefit pension plan (see below), this upper limit not being reached.

Compliance with the conditions set forth above is verified on an annual basis, before the Ordinary General Meeting convened to approve the financial statements for the last completed fiscal year, by the Board of Directors.

In respect of 2022, the Board of Directors on February 15, 2023, took note of the 100% achievement of the performance conditions. Accordingly, the amount to be paid in 2023 in respect of fiscal year 2022 under the pension scheme with individual and optional subscription, for the period January 1, 2022 to May 31, 2022, will amount overall to 141,667 euros (split, in accordance with the remuneration policy approved by the General Meeting of May 4, 2022, between a payment of 70,834 euros (gross) to the insurer in the form of an insurance premium, and a payment of 70,834 euros (gross) to Mr Benoît Potier intended to cover the social security contributions and similar charges and taxes due on the payments made to the insurer). For the record, the amount of contributions paid in 2022 (in respect of 2021) under this scheme in favor of Mr Benoît Potier is 340,000 euros (split, in accordance with the remuneration policy approved by the General Meeting of May 4, 2022, between a payment of 170,000 euros (gross) to the insurer in the form of an insurance premium, and a payment of 170,000 euros (gross) to Mr Benoît Potier intended to cover the social security contributions and similar charges and taxes due on the payments made to the insurer).

Consequently, in respect of this fiscal year (for the period from January 1, 2022 to May 31, 2022), as part of the collective pension insurance contract with individual and optional enrollment:

- the total amount paid corresponds to 10.3% of annual target fixed and variable remuneration in respect of 2022 (for the period from January 1, 2022 to May 31, 2022);
- in the event of a conversion of the capital paid to the insurer into a life annuity, Mr Benoît Potier's rights under this scheme are estimated, at December 31, 2022, and including the payment to be made in 2023 in respect of the 2022 fiscal year (for the period from January 1 to May 31, 2022), at 17,247 euros gross per year.

This collective pension insurance contract with individual and optional subscription thus replaced the acquisition of conditional rights under the defined benefit pension plan ("plan S"), which was frozen and since January 1, 2020 has allowed no acquisition of supplementary conditional rights. The conditional rights to which Mr Benoît Potier is entitled pursuant to this plan for the period running up until December 31, 2019 remain subject to the provisions of the plan's regulations, including in particular the condition that he ends his professional career at the Company.

For the record, pursuant to articles L. 911-1 and L. 911-2 of the French Social Security Code, and in accordance with article L. 137-11 of the same Code, the collective defined benefit pension plan "S" had been set up by Air Liquide for the benefit of the employee senior executives and corporate officers:

- (i) whose remuneration exceeded 24 times the annual social security ceiling (PASS);
- (ii) who had a total of three years' length of service with the Air Liquide Group, in accordance with the AFEP/MEDEF Code of Corporate Governance; and
- (iii) who were not classed as a participant under the supplementary defined benefit pension plan with guaranteed cover ("garantie de ressources") which was closed in 1996.

Mr Benoît Potier's conditional rights under this scheme:

- (i) could be applied for, if the beneficiary definitively ended his professional career at the Company and decided to claim his mandatory basic and supplementary pension (Agirc-Arrco) entitlements, whether or not at the full rate. This liquidation took place on June 1, 2022 (see below);
- (ii) are equal to 1% for each year of service (as at December 31, 2019) of the average of the three best years in the last five years of remuneration exceeding 24 times the annual social security ceiling ("PASS") (the "Reference Remuneration"). The basis for calculation of the pension annuity is limited to the fixed and variable remuneration only, to the exclusion of any other form of remuneration, whether paid by the Company or by any French or foreign subsidiary. For this calculation, the average of the total variable portions taken into account cannot exceed 100% of the average of the total fixed portions taken into account. Where applicable, an annuity equal to 60% of the aforementioned benefits will be paid to the surviving spouse, subject to certain conditions, notably with regard to age;
- (iii) are capped, in all cases, as they are for all the senior executives benefiting from the defined benefit plan, and for all pension plans combined, whether public or private, in France or abroad, at 45% of the Reference Remuneration. Should this ceiling be reached, the amount paid under the defined benefit plan would be reduced accordingly;
- (iv) have been the subject of:
 - contributions paid to an insurance body, that are deductible from the corporate income tax base, and
 - provisions in the Group's Consolidated financial statements;

- (v) are estimated, as at December 31, 2022, at 648,379 euros gross per year, Mr Benoît Potier having a total of 38.6 years' length of service in the Group as at December 31, 2019;
- (vi) will be subject to the employer's contribution due on pension annuities provided for by article L. 137-11 of the French Social Security Code at a rate of 32%.

The application of this scheme to Mr Benoît Potier had been authorized by decisions of the Board of Directors on February 12, 2010, February 17, 2014 and February 14, 2018 and approved, in resolutions specific to Mr Benoît Potier, by the General Meetings on May 5, 2010 (9th resolution), May 7, 2014 (10th resolution) and May 16, 2018 (10th resolution). Between May 16, 2018 and December 31, 2019 (when this scheme was frozen as per Ordinance No. 2019-697 of July 3, 2019), an increase in Mr Benoît Potier's conditional entitlements under the scheme was subject to performance conditions. These performance conditions were similar to those applicable to Mr Benoît Potier under the collective pension insurance contract with individual and optional subscriptions set up on January 1, 2020 to replace the frozen defined benefit pension plan, until May 31, 2022.

2. Mandatory company retirement savings plan (PERO) and senior executive contribution pension plan

- For the record, pursuant to articles L. 911-1 and L. 911-2 of the French Social Security Code, and in accordance with article L. 242-1, paragraphs 6 and 7 of the same Code, the Air Liquide Group has set up, at several companies including L'Air Liquide S.A., a defined contribution pension plan for the benefit of all the employees (article 83 of the French Tax Code).

The individual application of this plan to Mr Benoît Potier had been authorized by a decision of the Board of Directors on February 12, 2010, in accordance with the regulated agreements and commitments procedure, and approved by the General Meeting on May 5, 2010 (9th resolution).

In order to bring it into line with the new legal and regulatory plan arising from the PACTE Law, this defined contribution pension plan was transferred collectively to a mandatory company retirement savings plan (PERO) on January 1, 2021.

The application of this plan to Mr Benoît Potier as from January 1, 2021 was authorized by the Board of Directors on February 9, 2021 and this item was incorporated into the remuneration policy approved by the General Meeting of May 4, 2021.

In keeping with the prior plan, Mr Benoît Potier benefits from the "PERO" defined contribution pension plan which applies to all the employees and the Executive Officers, contributions to which are paid in equal shares by the employer and the beneficiary on the fraction of remuneration which does not exceed eight times the annual social security ceiling (PASS).

These contributions are assessed on bracket 1 (formerly bracket A) (the portion of remuneration that is less than one PASS) at a rate of 2.30%, and on bracket 2 (formerly brackets B and C) (those portions of remuneration amounting, respectively, to between one PASS and eight times the PASS) at a rate of 6.45%, and are distributed in the following manner: 50% borne by the Company and 50% borne by the beneficiary.

Furthermore, they are deductible from the corporate income tax base, are subject to the social levy at the rate of 16%, and are excluded from the basis for assessment of the social security contributions, within the limit of the higher of the following two values: 5% of the PASS or 5% of the remuneration taken into account within the limit of five times the PASS.

For information purposes, contributions paid in respect of 2022, until May 31, 2022, by the Company for Mr Benoît Potier totaled 4,066 euros. This amount is also indicated in the notes to Table 2.

The pension rights of Mr Benoît Potier under this plan are estimated, as at December 31, 2022, at 9,830 gross euros per year.

- In addition, pursuant to articles L. 911-1 and L. 911-2 of the French Social Security Code, and in accordance with article L. 242-1, paragraphs 6 and 7 of the same Code, L'Air Liquide S.A. set up a defined contribution pension plan for the benefit of the senior executives, defined by reference to a collective bargaining agreement coefficient, and of corporate officers who have at least one year's length of service.

Since 2015, Mr Benoît Potier no longer benefits from this defined contribution pension plan set up for the benefit of the senior executives, the contribution paid for his benefit having been transferred to the life insurance plan (see below).

Mr Benoît Potier's pension entitlements under this defined contribution plan implemented for the benefit of senior executives:

- were financed by annual contributions paid in their entirety by the Company. These contributions were last set at 2.5% of the portion of remuneration that is lower than eight times the PASS. Furthermore, they were subject to the same tax and social security treatment as those paid pursuant to the defined contribution pension plan set up for the benefit of all the staff (see above);
- are estimated, as at December 31, 2022, at 194,829 euros gross per year.

Claiming of pension rights

Mr Benoît Potier claimed his pension rights under the various pension plans described above on June 1, 2022, date on which he claimed his pension rights under the general social security pension, with the exception of the collective pension insurance contract with individual and optional subscription (which may only be claimed after the last payment of contributions, which will be made in 2023 for the 2022 fiscal year for the period from January 1, 2022 to May 31, 2022) ⁽⁶⁾.

B. Other life benefits

1. Life insurance plan

Since Mr Benoît Potier is no longer a beneficiary of the defined contribution pension plan for senior executives (see above), L'Air Liquide S.A. has entered into a collective life insurance contract which enables him to create savings which are available at any time.

The insurance contract provides that the beneficiary can ask for the payment of a single capital sum or conversion of the capital into a life annuity.

⁽⁶⁾ The amount that will be paid in 2023 in respect of the 2022 fiscal year under the pension scheme with individual and optional subscription, for the period from January 1, 2022 to May 31, 2022, is specified in the notes to Table 2.

The Executive Officer's rights under this plan were financed by contributions paid by the Company to an insurance body and concerned the brackets of remuneration ranging from 0 to 24 times the PASS, with the following rates:

- 2.5% on the remuneration fraction up to 8 PASS;
- 25% on the remuneration fraction between 8 and 16 PASS;
- 40% on the remuneration fraction between 16 and 24 PASS.

In the event of a conversion of the capital into a life annuity, Mr Benoît Potier's rights under this plan are estimated, at December 31, 2022, at 12,871 euros gross per year.

The opening of this plan, for the third bracket (16 to 24 times PASS) and then the second bracket (8 to 16 times PASS), and finally its extension to the first bracket (0 to 8 times PASS) of the Reference Remuneration, at an unchanged cost for the Company, responded to a concern for good management. The contributions paid by the Company to the third-party plan manager were assessed on the basis of the portions of the Reference Remuneration of the beneficiaries corresponding to each of the three brackets, in accordance with conditions identical to those of the previous plan.

The contributions were reviewed each year on the basis of the amount of the PASS. These contributions are deductible from the corporate income tax base and are subject to social security contributions.

For Mr Benoît Potier, the signature of this contract, for the third and then the second bracket, was authorized by decisions of the Board of Directors on November 20, 2012 and February 13, 2013 in accordance with the regulated agreements and commitments procedure, and approved by the General Meeting on May 7, 2013 in a specific resolution (7th resolution). The extension of the plan to the first bracket concerning the band of Reference Remuneration amounting to between 0 and 8 times the annual social security ceiling was authorized by decision of the Board of Directors on November 20, 2014, in accordance with the regulated agreements and commitments procedure, and approved by the General Meeting on May 6, 2015, in a specific resolution for Mr Benoît Potier (7th resolution).

The amount paid by the Company in 2022 in respect of the 2021 fiscal year to the insurance body pursuant to the life insurance plan for the benefit of Mr Benoît Potier is disclosed in the footnotes to Table 2. The amount to be paid in 2023 for the period from January 1 to May 31, 2022 ⁽⁷⁾, is also indicated in these notes.

2. Death and disability benefits plan

Mr Benoît Potier benefits from the additional "incapacity, disability, death" benefits plan, unified as from January 1, 2015, covering all the personnel and the corporate officers who are duly authorized to benefit from such plan, which provides in particular for:

- the grant to the beneficiaries:
 - of additional daily indemnities in the event of incapacity and a disability annuity set, all benefits combined, at a maximum annual amount of 460,723 euros, and
 - of a death benefit, the maximum amount of which is set at 120 times the PASS in the event of an accident.

The life insurance contract entered into with the insurer specifies the limits of the incapacity/disability and death benefits for the same insured party;
- the payment in full, by the Company, of the contributions calculated as a percentage of the Reference Remuneration which is capped at:
 - 16 times the PASS for the incapacity and disability cover, and
 - 24 times the PASS for the death cover.

The contribution rate for 2022 amounts to 1.10% of the Reference Remuneration up to 16 PASS and to 0.89% between 16 and 24 PASS. These contributions are deductible from the corporate income tax base, are subject to the social levy at a rate of 8%, and are excluded from the basis for assessment of the social security contributions, within the limit of an amount equal to the sum of 6% of the PASS and 1.5% of the remuneration, taken into account within the limit of 12% of the PASS.

The individual application to Mr Benoît Potier of this unified benefit plan covering all the personnel, in respect of his duties as Chairman and Chief Executive Officer, was authorized by decision of the Board of Directors on November 20, 2014, in accordance with the regulated agreements and commitments procedure, and approved by the General Meeting on May 6, 2015 in a specific resolution (7th resolution).

The contribution paid in 2022 by L'Air Liquide S.A. in respect of the death and disability benefits plan for Mr Benoît Potier, for the period from January 1 to May 31, 2022, was 4,237 euros and is also indicated in the notes to Table 2 (see page 181).

C. Commitments relating to termination of duties

1. Indemnities relating to termination of duties

Benoît Potier was entitled to an indemnity relating to termination of duties, in the cases listed below, in his capacity as Chairman and Chief Executive Officer.

The main terms of the termination indemnity applicable to Mr Benoît Potier were:

- only the cases of forced departure of Mr Benoît Potier from his terms of office as Chairman and Chief Executive Officer (removal from office, request for resignation) related to a change of strategy or a change in control (in the latter case, the termination indemnity is due, if the departure occurs within six months of the change of control) may give rise to an indemnity;
- the amount of the indemnity in any of these cases is set at 24 months of gross fixed and variable remuneration;
- the amount of the indemnity due decreases gradually as Mr Benoît Potier, in his capacity as Chairman and Chief Executive Officer, approaches the age limit defined in the Company's articles of association; in the event of a forced departure in the 24 months preceding the date of departure due to the age limit set by the articles of association, the amount of the indemnity due will be capped at the number of months' gross remuneration separating the date of forced departure from the date when he reaches such age limit; in any event, no indemnity shall be paid should the beneficiary claim his pension entitlements on the date of his forced departure;

⁽⁷⁾ Corresponding to the last contribution paid by the Company in respect of the life insurance plan.

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- the right to payment of the indemnity is subject to the achievement of the performance conditions, the proportion of the indemnity due decreasing depending on the rate of achievement of such conditions (see below for details of the performance conditions).

Performance conditions applicable to the termination indemnity

Payment of the termination indemnity concerning Mr Benoît Potier was subject to compliance, duly acknowledged by the Board of Directors at the time of or subsequent to the termination of his duties, with conditions related to the beneficiary's performance assessed in light of the Company's performance, defined as of today as follows:

Entitlement to the indemnity referred to above shall depend on, and the amount of the indemnity paid would be adjusted on the basis of, the average of the annual gap between the Return on Capital Employed after tax (ROCE) and the Weighted Average Cost of Capital (WACC) (assessed using the net equity method), calculated (on the basis of the certified Consolidated financial statements, approved by the General Meeting) with respect to the last three fiscal years prior to the fiscal year during which the departure occurs. For the purposes of this calculation, the gap between the ROCE and the WACC would be measured with regard to each fiscal year, and the average of the three annual gaps would be calculated on the last three fiscal years prior to the fiscal year during which such departure takes place.

Given the fundamental importance, in the highly capital-intensive industrial gas industry, of the management and control of investment processes, this gap would make it possible to measure the regular creation of value over the three years prior to the departure.

The proportion of the indemnity due would be established as indicated in the table below, with an increase in the indemnity by straight-line segments between each of the thresholds between 100 bps and 300 bps inclusive:

Average of the annual gaps (ROCE – WACC) over three years in bps ^(a)	Proportion of indemnity due
≥ 300	100%
250	66%
200	50%
100	25%
< 100	0%

(a) bps: basis points.

The decision of the Board of Directors on February 14, 2018⁽⁶⁾ relating to this indemnity was made in accordance with the regulated agreements and commitments procedure and published on the Company's website on February 16, 2018. It was approved by the General Meeting on May 16, 2018 in a specific resolution (9th resolution).

This mechanism was maintained for Mr Benoît Potier until the date on which he ended his term of office as Chief Executive Officer (CEO), i.e. May 31, 2022. It was never implemented and is now obsolete.

2. Unemployment insurance for company managers and corporate officers

By decision of the Board of Directors in May 2006, Mr Benoît Potier benefited, in his capacity as a corporate officer, from the unemployment insurance for company managers and corporate officers taken out by the Company. The contributions paid by the Company are added back to Mr Benoît Potier's 2022 remuneration as benefits in kind.

This decision had been approved by the General Meeting on May 9, 2007, in accordance with the regulated agreements procedure (7th resolution).

The Board of Directors confirmed, at its meeting on May 16, 2018, that Mr Benoît Potier continued to benefit from this unemployment insurance within the scope of the latest renewal of his duties as Chairman and Chief Executive Officer.

This mechanism was maintained for Mr Benoît Potier until the date on which he ended his term of office as Chief Executive Officer (CEO), i.e. May 31, 2022. It is now obsolete.

⁽⁶⁾ You are reminded that, in order to take account of the expectations of certain Shareholders, the Board of Directors on February 14, 2018 amended the terms of the agreement applicable to Mr Benoît Potier before the renewal of his term of office in 2018. The Board thus decided (i) to remove the non-renewal of the term of office from the list of cases of forced departure giving rise to a right to an indemnity; (ii) that when the departure is linked to a change of control, the termination indemnity is only due if the departure occurs within six months of the change of control, compared to 24 months previously; (iii) to modify the performance conditions, the thresholds for progression having been made more demanding than previously.

TABLE 11.

The table shown below presents a summary of the commitments relating to the termination of the duties of the Company Officer, as set out above.

Company Officer	Employment contract	Supplementary pension plan (see details above)	Indemnities or benefits due or that may be due on termination or a change of duties (see details above)	Indemnity relating to a non-compete clause
Benoît Potier Chairman and CEO Start date of term of office: 2006 Date of renewal of term of office: 2018 Date of end of term of office: May 31, 2022	NO	Defined benefits pension plan: no conditional rights acquired since January 1, 2020 (following the reform undertaken at the end of 2019) Collective pension insurance contract with individual and optional subscription implemented as from January 1, 2020: YES Mandatory company pension savings plan from January 1, 2021 (formerly defined contribution pension plan): YES Defined contribution pension plan for senior managers and executives: NO (Mr Benoît Potier no longer benefits from this plan, since the Company does not pay contributions to this plan anymore)	Termination indemnity: YES <ul style="list-style-type: none"> ■ Applicable in the event of a forced departure related to a change of strategy or control; ■ Maximum amount of 24 months of gross fixed and variable remuneration; ■ Subject to performance conditions; ■ Reduction as he approaches the age limit in the articles of association, exclusion if the beneficiary claims his pension entitlements on the date of forced departure. 	NO

N.B.: the stock options and the performance shares are lost in the event of a resignation or removal from office for serious cause during the vesting period. In other cases of departure, the principle of proration applies depending on the Company Officer's actual presence in the Group during the period of assessment of the performance conditions.

2.2. REMUNERATION OF THE CHIEF EXECUTIVE OFFICER (AS FROM JUNE 1, 2022)

2.2.1. SHORT-TERM BENEFITS

The gross annual remuneration before tax of the Chief Executive Officer ⁽⁹⁾, including benefits in kind, from June 1 to December 31, 2022 is indicated in Table 2 below:

TABLE 2. SUMMARY OF THE REMUNERATION OF THE CHIEF EXECUTIVE OFFICER (FROM JUNE 1, 2022) ⁽¹⁰⁾

(in thousands of euros, rounded off)	2022	
	Amounts awarded	Amounts paid
François Jackow – Chief Executive Officer ^{(a) (b)}		
Fixed remuneration	642	642
<i>including remuneration in respect of his term of office as Director</i>	—	—
Variable annual remuneration	912	—
Benefits in kind	8	8
TOTAL	1,562	650

(a) In accordance with the recommendations of the AFEP/MEDEF Code of Corporate Governance, François Jackow unilaterally terminated his employment contract by resignation at the start of his term of office, on June 1, 2022. Mr François Jackow receives all of his remuneration for his position as Chief Executive Officer.

(b) During the 2022 fiscal year, the Company also paid contributions to external organizations for the benefit of François Jackow for the period from June 1 to December 31, 2022 in respect of defined contribution pension plans (10,876 euros), the collective death and disability benefits plan (5,932 euros) and the collective healthcare plan (231 euros), i.e. a total of 17,039 euros. In 2023, the Company will also pay contributions for the period from June 1 to December 31, 2022, under the collective pension insurance contract, for an amount of 202,274 euros (split between a payment to the insurer and a payment to Mr François Jackow to cover social security contributions and taxes due on payments made to the insurer). Details of these plans are set forth below.

NB.: The amounts allocated for the year 2022 are calculated on a pro rata basis for the period from June 1 to December 31, 2022.

Within the fixed remuneration and the variable remuneration in respect of 2022, after recording the achievement of the criteria for the variable remuneration in respect of the 2022 fiscal year by the Board of Directors on February 15, 2023, the fixed remuneration represents 41% and the variable remuneration represents 59% ⁽¹¹⁾.

A. Fixed remuneration for 2022

In accordance with the policy approved by the General Meeting on May 4, 2022, the fixed remuneration was determined taking account of the level of responsibilities, the experience in executive management duties and market practices.

As announced, the 2022 annual fixed remuneration of the Chief Executive Officer amounts to: **1,100,000 euros**. The latter **calculated pro rata** over the period from June 1 to December 31, 2022, amounts to a total of **641,667 euros**.

⁽⁹⁾ The Chief Executive Officer does not receive any remuneration from Group companies other than L'Air Liquide S.A.

⁽¹⁰⁾ In addition, for the period from January 1 to May 31, 2022, the fixed and short-term variable remuneration of Mr François Jackow as an employee of the Company corresponds to a total amount of 458,333 euros. In respect of this period, Mr François Jackow, also benefited from (i) employer contributions for collective retirement contracts, death and disability benefit plans and health insurance cost plans for a total amount of 267,214 euros and (ii) an attribution of LTI for an IFRS value at the grant date of 565,978 euros (specified in the notes to Table 6).

⁽¹¹⁾ At the target, the fixed remuneration represents 45% and the variable remuneration 55%.

B. Variable remuneration for 2022

The principles and criteria for the variable remuneration of the Chief Executive Officer, as decided upon by the Board of Directors on February 15, 2022, were approved by the General Meeting on May 4, 2022 (15th resolution).

The Chief Executive Officer's variable remuneration due in respect of 2022 was calculated pro-rata for the period from June 1 to December 31, 2022. On the proposal of the Remuneration Committee, the Board of Directors on February 15, 2023 assessed the performance of the Company Officer in 2022 over the period.

The criteria for the variable remuneration, their weighting and their rate of achievement are detailed in the following summary table.

Quantifiable financial criteria

In accordance with the remuneration policy approved by the General Meeting of May 4, 2022, the variable remuneration for 2022 is based on two financial criteria: increase in recurring net earnings (excluding exceptional and significant transactions which do not impact operating income recurring) excluding currency impact, per share (hereinafter "**recurring EPS**") and comparable growth in consolidated revenue (excluding significant scope impact and the impact of currency and energy). Details of these criteria are contained in the summary table below (page 195).

The increase in the recurring EPS criterion makes it possible to take into account all the items in the income statement. The criterion of an increase in sales reflects the momentum of the activity. These two criteria, growth in revenue and the recurring EPS, reflect the Group's ambition to achieve profitable growth. Moreover, the achievement of the efficiency objectives contributes to the increase in the recurring EPS.

For each criterion, the Board of Directors had defined a target objective. The target objectives were exacting and were completely consistent with the trajectory of the main objectives of the company program.

A formula adopted by the Board makes it possible to calculate the amount of the variable remuneration due (within a maximum limit) by taking into account, on the basis of the Consolidated financial statements for the fiscal year, the value achieved for the criterion as compared to the target objective set. Thus, in the event of a performance that exceeds the objective set, the value of the variable part is adjusted upward within the maximum limit set for each criterion. **In the event of a performance that is below the lower limit set for each objective, the variable remuneration corresponding to this criterion is equal to zero.** The achievement of each performance condition is assessed without any set-off between criteria.

Furthermore, according to this formula, the **rate of achievement** of each objective is calculated **linearly** as follows:

- an initial linear gradient between the lower limit of the objective, corresponding to the trigger threshold (0% below this threshold) and the target (corresponding to a 100% achievement of the objective);
- a second linear gradient between the target (100%) and the maximum achievement level (125% of the target).

The objectives are not made public for confidentiality reasons. Nevertheless, the rate of achievement of each objective for the variable remuneration (as a percentage of the fixed remuneration and as a percentage of the target variable remuneration allocated to that criterion) is communicated in the summary table on page 195.

Following an excellent year in 2022, the quantifiable criteria objectives were achieved at the maximum threshold.

Qualitative personal criteria

Pursuant to the remuneration policy approved by the General Meeting on May 4, 2022, the variable remuneration for 2022 is also based on (qualitative) personal criteria. The latter, defined in keeping with the continuity of qualitative objectives of the Executive Officer during prior years, making changes however corresponding to developments in strategy and extra-financial performance criteria, are as follows:

- **CSR: ESG objectives published by the Group on Sustainability Day on March 23, 2021:**
 - Safety and reliability: continue efforts to improve safety (lost-time accident frequency rate, road traffic accidents and job-related accidents),
 - Roll-out of Action plans linked to the Group's new sustainability objectives; Progress made on the various key indicators and alignment with the 2025 trajectory linked to these new objectives;
- **Organization / Human Resources** (talent development, management succession plans, diversity policy);
- **Individual performance:** this criterion responds to the Board of Directors' desire to keep a part of the variable remuneration subject to the Board's assessment, in order to take account of the unpredictability of the environment. This may be beneficial to the Executive Officer, if the Company is facing an unfavorable environment which was not anticipated at the time the objectives were set, or disadvantageous if the environment ultimately turns out to be more favorable than anticipated.

A target weighting and a maximum weighting are set for each qualitative criterion.

For 2022, after a detailed analysis by the Remuneration Committee of the achievements for the fiscal year, the Board of Directors noted the following elements concerning each of the personal criteria:

CSR:

Performance was considered very good:

- **Safety and reliability**

Based on the estimated hours worked, the lost-time accident frequency rate of Group employees stood at 0.94 in 2022, compared to 1.06 in 2021. This indicator has improved compared to 2021, with a significant reduction (-11%) in the number of workplace accidents involving Group employees. A similar trend can be observed for subcontractors. Overall, 26 fewer people (whether employees or subcontractors) were injured in connection with Group activities in 2022, by comparison with 2021.

2022 was marked by the death of a subcontracted driver involving a road traffic accident. For the record, 2021 had been marked by the deaths of four subcontractors.

Since taking office, Mr François Jackow has constantly stressed the importance of safety, notably during his numerous site visits in Operations, as shown in the video made during his trip to Poland on June 1, 2022. These opportunities have enabled him to promote the Group's Safety Culture, taking advantage of each of these visits to initiate a dialogue on safety with the employees encountered.

He has also regularly reiterated, for example in the editorial he wrote for the Group's HSE newsletter published in September, that the goal of "zero accidents" for employees and partners remains the Group's top priority.

In terms of action plans, he built on previous programs, stressing the need to remain focused in order to bring them to a successful conclusion, before launching other major projects. Accordingly, he continued to supervise, both personally and together with all the Executive Committee members, the progress of the IMS Streamlining program and the plan to upgrade more than 600 air separation units. In four years, more than 600 units will have been upgraded. It can be noted that Air Liquide played a leading role in influencing its peers and inviting them to work together to develop harmonized international standards for everyone's benefit.

In addition, Mr François Jackow regularly reiterated the importance of Road Safety in Air Liquide Operations, notably at the Group Management Meeting in October 2022, where he confirmed his support and involvement in the roll-out of the Group's Road Safety action plan.

Finally, in addition to these main programs, actions aimed at improving the understanding of major industrial risks were initiated in the second half of 2022, in order to enhance the safety culture among Air Liquide employees; these actions will be rolled out across the Group over the course of 2023 and 2024.

■ **Roll-out of Action plans linked to the Group's new sustainability objectives; Progress made concerning the various key indicators and alignment with the 2025 trajectory for these new objectives**

The Advance Plan communicated in March 2022, prepared as a result of close coordination between Mr François Jackow and Mr Benoît Potier, confirmed that sustainable development issues are placed at the heart of the Group's development strategy.

The objectives announced have been rolled out throughout the year and considerable progress has been made with respect to each of the ACT program commitments.

– **ACT for the Climate:**

Governance, reporting and processes for monitoring and managing CO₂ emissions have been actively rolled out across the whole Group. Annual CO₂ budgets, which may be positive or negative depending on local factors, are now allocated to the operating entities every year. Each quarter, compliance with these budgets and the impact of activities on the 2025 Carbon trajectory are analyzed and presented to the Executive Committee. The Group's CO₂ emissions are also reported and consolidated each quarter.

During the second half, several new projects were signed that contribute to the decarbonization of the Group's assets or those of its customers, together with projects for the production of low-carbon hydrogen, demonstrating the proactive implementation of the Climate objectives announced by the Group (agreement with TotalEnergie in November 2022 to produce and recover renewable, low-carbon hydrogen for the Grandpuits refinery using innovative processes; the first contracts for the production of carbon-free hydrogen in China; obtaining European subsidies for a project to decarbonize the Antwerp port platform and the backing of the Dutch government for two major electrolyzer projects in the Netherlands in December 2022). In addition, the signing of long-term renewable energy supply agreements has accelerated (e.g. the execution by Air Liquide of its largest renewable energy supply agreement in the Netherlands in June 2022).

Active communication was also maintained concerning hydrogen as an accelerator of the energy transition (the Hydrogen Generation broadcast on September 28, 2022).

Finally, all the extra-financial ratings obtained were stable in 2022 or improved by comparison with the previous fiscal year. Air Liquide was included in the Dow Jones Sustainability Europe index for the first time.

– **ACT for Health:**

The Group's objective in Mature Countries is to improve the quality of life of patients living at home with chronic diseases. In this sector, the Healthcare teams continued to develop personalized care pathways that are tailored to comply with local regulations. The proportion of patients receiving care who benefited from these pathways increased significantly over the fiscal year.

In low and middle-income countries, the objective is to provide an increasing number of people with access to medical oxygen. Once again, thanks to new projects, notably in South Africa, the number of people benefiting from the "Access Oxygen" program increased over the course of the fiscal year.

– **ACT for the whole of Society:**

The programs to increase gender diversity within the population of Managers and Professionals continued, even if the result of 31.5%, at the end of 2022, is slightly lower than expected for 2022, and the objective is not called into question.

On the other hand, the generalization of a common basic social security cover for all employees and the roll-out of the Citizen at Work program, allowing employees to participate in social or societal projects during their working hours, saw considerable progress throughout the fiscal year and are currently ahead of the 2025 roadmap. Roll-out of care coverage at the end of 2022 has already reached 42%.

The action and progress described above confirm that, thanks to a structured and proactive implementation of the objectives set, the Group is well-positioned with regard to the various pillars of the ACT commitments, in line with the 2025 trajectory for these new objectives.

Organization and Human Resources:

The Group's talent development policy continued as before, with regular reviews. As in previous years, these reviews were conducted at the level of our operational clusters right up to the Executive Committee. Special focus was placed on international development opportunities in the context of reduced mobility due to the Covid crisis. The diversity of profiles was also carefully reviewed, in order to promote the many cultures within the Group at key positions, and to continue to improve the gender balance.

Remuneration of L'Air Liquide S.A. corporate officers

A detailed review of the top international talent took place with the Appointments and Governance Committee in the second half of 2022, in order to prepare for future changes in management.

Specific attention was paid to the review of the technical talent (appointments through the TCL program) as well as to commercial profiles, with the involvement of Mr François Jackow in recognizing the Key Account salespeople at the dedicated international meeting.

In addition, a review was carried out with the Board of Directors of the talent policy and its implementation in current market conditions (tight labor market, new technological challenges, new ways of working), together notably with the developments that are required for the Hydrogen market.

Alongside the work on governance and preparation for the succession to the Company's General Management, close attention was paid to the Executive Committee's work. In June, a dedicated session lasting several days was organized with the support of external partners, in order to define how the Executive Committee will operate under Mr François Jackow's leadership. Changes have also been made to the Executive Committee, notably with the appointment of M. Ronnie Chalmers, Vice President of the Africa, Middle-East and India hub, as well as adjustments to some members' perimeters.

Moreover, in connection with his taking office, in addition to the "handover" sessions, Mr François Jackow organized numerous trips within the Group (in particular to Asia and the Americas) in order to meet the teams directly in the field in as short a timeframe as possible, including notably those teams who did not come under his responsibility in his former roles.

At Mr François Jackow's request, Executive Committee sessions were dedicated to diversity issues during the review of the ESG objectives and, more broadly, to the inclusion policy. Gender equality targets were reviewed, as well as their implementation throughout the Group, and Mr François Jackow expressed his strong commitment concerning the policy for the inclusion of disabled workers, notably at the various events organized during Disability Week.

Individual performance:

The Chief Executive Officer's individual performance is considered remarkable. At the pivotal moment of the succession and his taking up office, in a macroeconomic environment marked by an unprecedented increase in costs, notably energy costs, and an unfavorable geopolitical situation, he demonstrated strong commitment to the Group's success while also expressing his gratitude to the teams. Performance in this regard was assessed at 110%.

SUMMARY TABLE OF THE VARIABLE REMUNERATION FOR 2022

Indicator	Approved elements by the General Meeting in 2022:				Achievement ^(d)			
	Target ^(a)		Maximum		As a % of the target remuneration for this criterion	As a % of the fixed remuneration	As a % based on 100	In thousands of euros (rounded off)
	As a % of the fixed remuneration	As a % based on a 100	As a % of the fixed remuneration	As a % based on a 100				
Quantifiable financial criteria including:	84	70	105	70	125	105	74	674
Increase in recurring net earnings ^(b) excluding the foreign exchange impact per share (recurring EPS)	60	50	75	50	125	75	53	481
Comparable growth in consolidated revenue ^(c)	24	20	30	20	125	30	21	193
Qualitative personal criteria including:	36	30	45	30	103	37	26	239
CSR:								
<ul style="list-style-type: none"> ■ Safety and reliability: continue efforts to improve safety (lost time accident frequency rate, road traffic accidents and job-related accidents) ■ Roll-out of the action plans relating to the Group's new sustainable development objectives; Progress made concerning the various key indicators and harmonization with the 2025 trajectory for these new objectives 	12	10	15	10	100	12	8	77
Organization/Human Resources (talents development, management succession plans, diversity policy)	12	10	15	10	100	12	8	77
Individual performance: assessment by the Board of Directors, notably in light of the external environment for the year	12	10	15	10	110	13	9	85
TOTAL (FINANCIAL AND PERSONAL CRITERIA)	120	100	150	100	119	142	100	912

(a) The target corresponds to 100% achievement of the performance criterion.

(b) Excluding significant and exceptional transactions that do not impact the operating income recurring. The calculation is based on the 2022 recurring net profit (Group share) excluding the foreign exchange impact (as compared to 2021), reconciled in chapter 1 – page 62 of this 2022 Universal Registration Document.

(c) Excluding significant scope impact, foreign exchange impact and energy. See reconciliation in chapter 1 – page 61 of this 2022 Universal Registration Document.

(d) As per decision of the Board of Directors on February 15, 2023.

In total, the amount of the variable remuneration **calculated pro rata** over the period from June 1 to December 31, 2022 is therefore higher than the target and amounts to 912,450 euros.

The total amount of the variable remuneration due for the 2022 fiscal year will be paid in 2023, after approval of the financial statements by the General Meeting, it being noted that its payment is conditional on the approval by a General Meeting of the elements of remuneration paid during or awarded in respect of the 2022 fiscal year to Mr François Jackow in his quality as Chief Executive Officer.

C. Total fixed and variable remuneration for 2022 – Changes

In view of the very recent appointment of Mr François Jackow as Chief Executive Officer, information related to the change in his fixed and total variable remuneration will be presented in the 2023 Universal Registration Document.

D. Other elements of annual remuneration

Benefits in kind paid to the Executive Officer in 2022 include the use of a company car and the contributions paid for unemployment insurance for company managers and corporate officers, during the term of office of the Chief Executive Officer exercised by Mr François Jackow from June 1 to December 31, 2022.

Death and disability benefits and healthcare cost plan

As an employee, Mr François Jackow benefited, until May 31, 2022, from the additional “incapacity, disability, death” benefits plan, unified as from January 1, 2015, covering all the personnel and the corporate officers who are duly authorized to benefit from such plan. Mr François Jackow also benefited from the healthcare cost plan covering all employees. The continuation of these unified death and disability and healthcare cost plans for the benefit of Mr François Jackow, from his appointment as Chief Executive Officer, was authorized by the Board of Directors on February 15, 2022, and approved by the General Meeting of May 4, 2022 as part of the remuneration policy for the Chief Executive Officer (15th resolution).

The supplementary death and disability (“incapacity, invalidity, death”) benefits plan provides in particular for:

- the grant to the beneficiaries:
 - of additional daily indemnities in the event of incapacity and a disability annuity set, all benefits combined, at a maximum annual amount of 460,723 euros, and
 - of a death benefit, the maximum amount of which is set at 120 times the PASS in the event of an accident.

The life insurance contract entered into with the insurer specifies the limits of the incapacity/disability and death benefits for the same insured party;

- the payment in full, by the Company, of the contributions calculated as a percentage of the Reference Remuneration which is capped at:
 - 16 times the PASS for the incapacity and disability cover, and
 - 24 times the PASS for the death cover.

The contribution rate for 2022 amounts to 1.10% of the Reference Remuneration up to 16 PASS and to 0.89% between 16 and 24 PASS. These contributions are deductible from the corporate income tax base, are subject to the social levy at a rate of 8%, and are excluded from the basis for assessment of the social security contributions, within the limit of an amount equal to the sum of 6% of the PASS and 1.5% of the remuneration, taken into account within the limit of 12% of the PASS.

The contributions paid by L'Air Liquide S.A. for the benefit of Mr François Jackow in 2022, for the period from June 1, 2022 to December 31, 2022, amounted to 5,932 euros in respect of the death and disability plan and 231 euros in respect of the healthcare cost plan (i.e. a total of 6,163 euros) and are also indicated in the notes to Table 2 (page 191).

2.2.2. LTI: STOCK OPTIONS AND PERFORMANCE SHARES

A. 2022 performance share plan (plan dated September 29, 2022)

1. Principles of grant for 2022

For the Chief Executive Officer, the grant for 2022 forms part of the 2022 remuneration policy defined by the Board of Directors on February 15, 2022 and approved by the General Meeting on May 4, 2022.

The grant of LTI to Mr François Jackow in his capacity as Chief Executive Officer in 2022 represents, for the period from June 1 to December 31, 2022, an IFRS valuation of **961,965 euros**.

Moreover, since 2019, the Board of Directors decided, following the general market trend, to grant only performance shares (instead of a mix of stock options and performance shares) to all the beneficiaries, in order to simplify and standardize the LTI scheme.

2. Performance conditions of the 2022 plans

All the performance shares granted to any beneficiary are subject to performance conditions which are calculated over three years. The performance conditions were set by the Board of Directors at the start of the year, at the February meeting, in order to comply with a reference period of three full years.

For reasons of confidentiality, the exact objectives set for each performance condition will be made public ex post, at the end of the Board of Directors' meeting at the time when the financial statements are adopted for the 2024 fiscal year. The results achieved, the rate of achievement of the performance conditions and the percentage of performance shares vested will also be published at the end of this meeting. The percentage of performance shares definitively awarded may in no event exceed 100% of the initial grant. The achievement of each performance condition is assessed **without any set-off between criteria**.

In keeping with the Group's responsible growth approach, the 2022 performance share plans incorporate, as they did in 2021, **a performance condition linked to the Group's Climate Objectives**.

Accordingly, the number of performance shares definitively awarded pursuant to the 2022 Plans will depend:

- (i) **for 50% of the performance shares granted**, on the rate of achievement of an objective, set by the Board, consisting of the Return on Capital Employed after tax (ROCE)⁽¹²⁾ recorded at the end of the 2024 fiscal year.

At the objective set, the grant is 100% and then decreases on a straight-line basis to a lower limit below which there will be no award. This lower limit corresponds to a ROCE level which is 200 basis points less than the objective set, which provides a degree of flexibility, notably making it possible to take advantage of external growth opportunities.

The objective has been set within the trajectory of the ROCE target announced by the Company that is maintained at more than 10% for 2023-2024, reflecting the impact of the crisis as well as a pro-active investment policy in a context of numerous and qualitative opportunities, notably in relation to the energy transition;

- (ii) **for 40% of the performance shares granted:**

- for 50% of the performance shares referred to in sub-paragraph (ii): on an objective of Total Shareholder Return set by the Board, defined as the average annual growth rate of an investment in Air Liquide shares, dividends reinvested, for the 2022, 2023 and 2024 fiscal years (“**AL TSR**”). The objective of an absolute TSR is set in accordance with historic performances. At the objective set, the grant is 100% and then decreases on a straight-line basis to a lower limit below which there will be no award,
- for 50% of the performance shares referred to in sub-paragraph (ii): on the rate of Total Shareholder Return from an investment in Air Liquide shares, dividends reinvested – source: Bloomberg (“**B TSR**”), as compared to the CAC 40 TSR index, dividends reinvested (source: Bloomberg) for the 2022, 2023 and 2024 fiscal years.

The rate of achievement will be 0%, if the average of the Air Liquide TSR is lower than the average of the CAC 40 TSR, 50% if it is equal to the average of the CAC 40 TSR and 100%, if it is at least higher than 2% of the average of the CAC 40 TSR on the basis of a straight-line change. Any grant for a performance lower than the average of the CAC 40 TSR is impossible.

⁽¹²⁾ For the purposes hereof, the Return on Capital Employed after tax (ROCE) is calculated as follows: ((recurring net profit after tax before deduction of minority interests – cost of net debt after taxes) for the period 2024)/(weighted average of (shareholders' equity + minority interests + net debt) at the end of the last three half years (H2 2024, H1 2024, H2 2023)).

The TSR criteria make it possible to align the Company's performance with Shareholders' expectation of steady profits;

- (iii) for 10% of the performance shares granted, change in the Group's absolute CO₂ emissions over the period 2022-2024 in line with the objective for a shift in 2025 in accordance with the Climate Objectives announced by the Group on March 23, 2021 (ACT for a sustainable future), as follows:

Comparison of the Air Liquide Group's CO₂ Emissions for the year 2024, expressed in millions of tonnes, to those same emissions for the year 2021, the 2021 basis of comparison being adjusted to take account of any possible takeovers of existing units at the Group's customers over the period 2022-2024, on a 12-month pro-forma basis and notably the takeover of the Sasol units in South Africa.

For the purposes hereof, the greenhouse gas emissions include direct emissions (Scope 1) and indirect emissions (Scope 2). These emissions are accounted for as "market based" ⁽¹³⁾.

DIAGRAM SHOWING THE PERFORMANCE CONDITIONS APPLICABLE TO THE PERFORMANCE SHARES IN 2022

	40% TSR over 3 years		10% CO ₂ Emissions reduction
50% ROCE	50% AL TSR	50% B TSR (AL TSR / CAC 40 TSR)	-

3. Rules applicable to Executive Officers

In accordance with the remuneration policy, the grant to the Executive Officer is examined by the Remuneration Committee at the same time as the allocation to Group employees and is decided by the Board of Directors.

The grant of performance shares was examined in light of the total amount of the Executive Officer's annual remuneration, taking into account several external market surveys and ensuring that the interests of the Shareholders are respected.

Before the grant, it was verified that the conditions provided for in article L. 22-10-60 of the French Commercial Code, which aims at involving all staff in France in the Company's performance, are satisfied. Therefore in 2022, over 98% of all the employees in the Company and in the Group's French entities are covered by an incentive plan or a special or voluntary profit-sharing plan.

Limits on the grants to Executive Officers

Within the scope of the sub-limits authorized by the General Meeting for 38 months, the Board of Directors sets lower annual limits for the grants to the Executive Officers, expressed (i) as a percentage of the share capital and (ii) as a multiple of their remuneration, in accordance with the recommendations of the AFEP/MEDEF Code.

The limits set by the Board of Directors for 2022 are identical to those for 2021 and are as follows (no subscription option having been attributed in 2022):

- (i) the total number of performance shares granted in 2022 to the sole Executive Officer cannot give rise to a number of shares exceeding 0.012% of the share capital (it being understood that an allocation sub-limit of 0.1% of the share capital for 38 months was set by the General Meeting on May 4, 2022);
- (ii) the total aggregate IFRS value of the performance shares granted to the Executive Officer cannot exceed approximately 1.5 times the amount of the Executive Officer's maximum gross annual remuneration (fixed + variable maximum), it being noted that the performance shares granted represent approximately 40% of the total target annual remuneration.

Maintaining the proration principle

Pursuant to the decision made by the Board on February 15, 2022 and the policy approved by the General Meeting on May 4, 2022, the 2022 grant of LTI to the Executive Officer remains subject to the principle of a pro rata calculation.

In practice, if the Executive Officer leaves the Group for a reason other than his resignation or removal from office for serious cause ⁽¹⁴⁾, the total allocation rate (after applying the performance conditions) would be reduced pro-rata for the duration of actual presence of the Executive Officer within the Group during the period of assessment of the performance criteria. Furthermore, no grant is made to the Executive Officer at the time of this departure, in accordance with the AFEP/MEDEF Code.

The Executive Officer will remain subject to all the provisions of the plans and, more specifically, those relating to the duration of the vesting, lock-up and holding periods in respect of the shares and stock options granted.

⁽¹³⁾ See definition of Scopes in paragraph 2.1.1 of the Extra-financial Performance Declaration, page 354, and scope calculation methodology in paragraph 2.2.4 of the Annual reporting section of Chapter 5 – pages 426 and 427.

⁽¹⁴⁾ Situations which will result in the loss of the LTI.

Shareholding and share ownership obligations**Shareholding obligation pursuant to the French Commercial Code**

On the recommendation of the Remuneration Committee, the Board defined the shareholding obligations resulting from articles L. 225-185 and L. 225-197-1 of the French Commercial Code applicable to the shares resulting from the exercise of stock options and performance shares, respectively, as from September 28, 2015, as follows:

For each stock option/performance share plan granted to Company Officers with effect from September 28, 2015, the Company Officers shall hold, in registered form, until the termination of their duties, a minimum quantity of shares corresponding to 50% of the capital gain on acquisition, net of social security charges and tax, resulting from each exercise of stock options/each definitive award of performance shares.

However, this percentage will be lowered to 5%, as soon as the quantity of shares held by the Company Officer resulting from the exercise of stock options or the definitive award of performance shares represents a minimum amount equal to at least three times the Company Officer's gross annual fixed remuneration.

This rule is regularly reviewed by the Board at the time of each grant. In 2022, the Board of Directors decided to maintain this rule in identical form.

These lock-up obligations are applicable to Mr François Jackow in his capacity as Chief Executive Officer from the 2022 performance share plan.

Additional share ownership obligation – Recommendation made by the AFEP/MEDEF Code

The Board of Directors' meeting of February 15, 2022 defined, as an extension of the internal rule defined by the Board since 2008, the shareholding rule according to which the Company Officers must hold, in a registered share account, a number of shares equivalent to twice his gross annual fixed remuneration for the Chief Executive Officer or the Chairman of the Board of Directors and one time the gross annual fixed remuneration for a Senior Executive Vice President. This obligation will remain in force until it is exceeded by the effect of the rules resulting from the French Commercial Code. The number of shares required to be held is assessed as of January 1 and July 1 of each year.

The Board of Directors decided, in line with the previous practice, that this rule would apply to the newly appointed Chief Executive Officer, who would have to comply within four years of his appointment. The assessment of the application of this rule for Mr François Jackow will therefore take place from July 1, 2026.

Recommendations encouraging the ownership of a minimum number of Company shares equivalent to 0.5 times their gross fixed annual remuneration, have also been made to members of the Executive Committee since 2009.

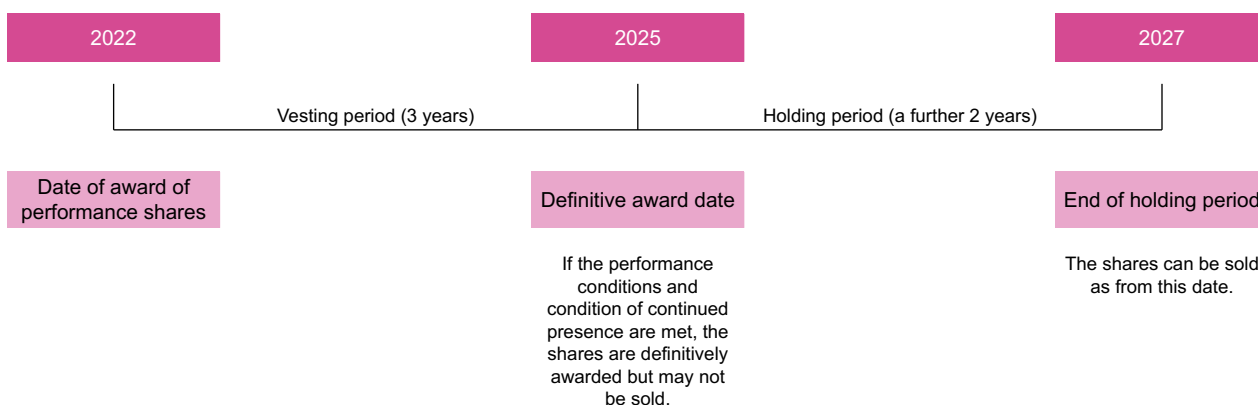
Other rules applicable to the Company Company Officers

- Restriction on the exercise of stock options and the sale of performance shares during the "black-out periods" prior to the publication of the financial statements. These abstention periods open 30 days before the announcement of the annual and half-year consolidated results and 15 calendar days prior to the publication of the quarterly financial information. They end on the date of publication of the information at close of business.
- Commitment not to carry out hedging transactions with regard to the risk concerning the performance shares awarded/options arising from the exercise of options, throughout the length of their term of office.

B. Grants to the Chief Executive Officer within the scope of the September 29, 2022 performance share plan Regulations

The grant to the Chief Executive Officer is governed by the September 29, 2022 "France" performance share plan which applies to all the beneficiaries in France. This plan contains:

- a three-year vesting period;
- followed by a two-year holding period during which the shares cannot be sold.

DIAGRAM OF THE PERFORMANCE SHARE MECHANISM – 2022 PLAN (FRANCE)

Continued presence in the Company is a condition under the plan in order to qualify for performance shares at the end of the vesting period, the loss of rights for the Chief Executive Officer occurring in the event of resignation or removal from office for serious cause.

The Chief Executive Officer is also subject to additional conditions as described above.

Volume

The table below shows the number and value of the performance shares awarded to Mr François Jackow on September 29, 2022 in compliance with the authorization given to the Board of Directors by the General Meeting of May 4, 2022 (21st resolution).

TABLE 6. PERFORMANCE SHARES AWARDED DURING THE 2022 FISCAL YEAR TO THE CHIEF EXECUTIVE OFFICER

	Plan grant date	Number of performance shares awarded	Value of the performance shares (pursuant to IFRS 2) ^(a) (in euros)	Definitive award date	Availability date	Performance conditions
François Jackow in his position as Chief Executive Officer ^(b)	29/09/2022	9,790	961,965	09/29/2025	09/29/2027	Three performance conditions calculated over three years: ■ ROCE ■ TSR, including an element of relative comparison ■ Climate Objectives

(a) As of September 29, 2022.

(b) For the period from June 1 to December 31, 2022.

(c) This grant of performance shares in his capacity as Chief Executive Officer is in addition to a grant in his capacity as an employee for the period from January 1 to May 31, 2022 (5,760 shares corresponding to a valuation under IFRS 2 of 565,978 euros), under the same conditions (performance conditions, vesting dates and availability of shares).

The performance shares awarded to Mr François Jackow on September 29, 2022 as Chief Executive Officer represent 0.0019% of the number of shares comprising the share capital⁽¹⁵⁾. This award is made by the Company to the exclusion of any other Group company.

C. Options exercised/remaining to be exercised in 2022 by the Chief Executive Officer – Performance shares that became available in 2022⁽¹⁶⁾

Stock option plan mechanism

As the Board of Directors has not granted share subscription options since 2018, the chart below illustrates previous plans (the 2018 Plan in this example).

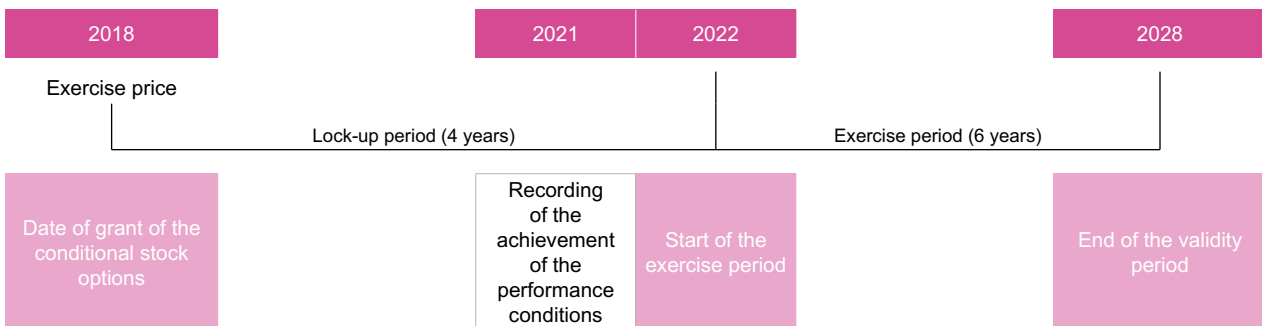


TABLE 4. STOCK OPTIONS GRANTED DURING THE FISCAL YEAR TO THE CHIEF EXECUTIVE OFFICER

Not applicable (no stock options granted in 2022)

TABLE 5. SHARE SUBSCRIPTION OPTIONS EXERCISED DURING THE 2022 FISCAL YEAR BY THE CHIEF EXECUTIVE OFFICER

	Plan grant date	Number of options exercised during the fiscal year	Exercise price ^(a) (in euros)
François Jackow^(b)	09/22/2014	3,205	77.67
	09/22/2014	320	77.67
	09/22/2014	4,057	77.67

(a) Exercise price on the date of exercise.

(b) Stock options granted to Mr François Jackow as an employee.

⁽¹⁵⁾ The performance shares granted to Mr François Jackow on September 29, 2022 as an employee represent 0.0011% of the number of shares comprising the share capital.

⁽¹⁶⁾ For informational purposes.

TOTAL ADJUSTED STOCK OPTIONS REMAINING TO BE EXERCISED BY THE CHIEF EXECUTIVE OFFICER AS AT DECEMBER 31, 2022

	Total number of outstanding adjusted options	Average price (in euros)
François Jackow ^(a)	8,644	76.15

(a) Stock options granted to Mr François Jackow as an employee.

TABLE 7. PERFORMANCE SHARES THAT BECAME AVAILABLE DURING THE 2022 FISCAL YEAR FOR THE CHIEF EXECUTIVE OFFICER

	Plan grant date	Number of shares that became available during the fiscal year
François Jackow ^(a)	09/20/2017	7,233

(a) Performance shares granted to Mr François Jackow as an employee.

D. Recording of the achievement of the performance conditions under the September 29, 2020 performance share plans ⁽¹⁷⁾

On the basis of the financial statements for the 2022 fiscal year submitted for the approval of the General Meeting of May 3, 2023, the Board of Directors on February 15, 2023, recorded the rate of achievement of the performance conditions, which apply to the whole of the performance shares awarded to any beneficiary and were determined at the time of the grant of the September 29, 2020 performance share plans.

As in 2019, the Board decided to grant only performance shares to any beneficiaries, for reasons of simplification and homogenization.

The 2020 annual plans provided that the number of performance shares definitively awarded would depend on the rate of achievement of the following objectives:

- (i) for 50% of the performance shares granted on the rate of achievement of a target, set by the Board, comprising the after-tax Return on Capital Employed ("ROCE") recorded at the end of the 2022 fiscal year.

At the objective set, the grant is 100% and then decreases on a straight-line basis to a lower limit below which there will be no award. This lower limit corresponds to a ROCE level which is 200 basis points less than the objective set, which provides a degree of flexibility, notably making it possible to take advantage of external growth opportunities.

The objective had been set within the trajectory of the NEOS company program which aimed at a ROCE of more than 10% in 2021-2022.

The ROCE level for the aforementioned period was 10.3%, i.e. an objective achieved at 100%;

- (ii) for 40% of the performance shares granted:

- for 50% of the performance shares referred to in sub-paragraph (ii): an objective of Total Shareholder Return ("AL TSR") set by the Board, defined as the average annual growth rate of an investment in Air Liquide shares, dividends reinvested, for the 2020, 2021 and 2022 fiscal years. At the objective set of +6%, the grant of shares is 100%, and then decreases on a straight-line basis to +2%. This growth, over the aforementioned period, amounted to 9.25% per year, i.e. a target achieved at 100%.
- for 50% of the performance shares referred to in sub-paragraph (ii): the rate of Total Shareholder Return from an investment in Air Liquide shares, dividends reinvested – source: Bloomberg ("B TSR"), as compared to the CAC 40 TSR index, dividends reinvested (source: Bloomberg) for the 2020, 2021 and 2022 fiscal years.

The applicable formula provided that the rate of achievement of this performance condition was (i) 0% if the average Air Liquide TSR was lower than the average CAC 40 TSR, (ii) 50% if the average Air Liquide TSR was equal to the average CAC 40 TSR, and (iii) 100% if the average Air Liquide TSR was at least 2% higher than the average CAC 40 TSR on the basis of a straight-line change. Any grant for a performance lower than the average of the CAC 40 TSR was impossible.

The rate of return for Air Liquide over the aforementioned period is 7.34%. That of the CAC 40 index over the same period is 6.74%. This gives the difference between the average rate of return for Air Liquide and the average rate of return for the CAC 40 as 0.60%, i.e. an objective achieved at 65.08%;

- (iii) for 10% of the performance shares granted, the reduction in Air Liquide's carbon intensity, defined as the following ratio, recorded as at December 31, 2022: Greenhouse gas emissions of the Air Liquide Group for the year 2022 in kg-equivalent CO₂/2022 EBITDA (calculated at constant exchange rate on the basis of the 2015 foreign exchange rates) expressed in euros. For the purposes hereof, the greenhouse gas emissions include direct emissions (Scope 1) and indirect emissions (Scope 2).

The objective was determined within the trajectory of the Group's Climate Objectives announced at the end of 2018 which aim to reduce the carbon intensity by -30% between 2015 and 2025.

The achievement rate was set at 0% for carbon intensity above 4.8, 50% for carbon intensity at 4.7 and 100% for carbon intensity up to 4.6, based on a linear progression from 0% to 100% between those bounds.

The ratio recorded as at December 31, 2022 is 4.28, i.e. a target achieved at 100%.

Consequently, the Board of Directors recorded that the rate of achievement of the performance conditions for the September 29, 2020 performance share plans amounts to 93.02%.

⁽¹⁷⁾ For informational purposes.

2.2.3. LONG-TERM COMMITMENTS

A. Company's pension and similar benefit obligations

In accordance with the remuneration policy approved by the General Meeting of May 4, 2022, Mr François Jackow benefits, in addition to the mandatory basic and supplementary pension plans (Agirc-Arrco) to which he is, or has been, affiliated, from various supplementary pension plans set up by L'Air Liquide S.A.

1. Mandatory company retirement savings plan (PERO)

Until May 31, 2022, Mr François Jackow, in his capacity as an employee, benefited, in addition to the mandatory pension plans, from the supplementary defined contribution pension plan applicable to all employees and Company Officers.

The continued application of this plan to Mr François Jackow, from his appointment as Chief Executive Officer, was authorized by the Board of Directors on February 15, 2022, and approved by the General Meeting as part of the remuneration policy for the Chief Executive Officer (15th resolution).

This plan, applicable to all employees and Company Officers, is financed by contributions paid equally by the employer and the beneficiary on the portion of remuneration not exceeding eight times the annual social security ceiling (PASS).

These contributions are assessed on bracket 1 (formerly bracket A) (the portion of remuneration that is less than one PASS) at a rate of 2.30%, and on bracket 2 (formerly brackets B and C) (those portions of remuneration amounting, respectively, to between one PASS and eight times the PASS) at a rate of 6.45%, and are distributed in the following manner: 50% borne by the Company and 50% borne by the beneficiary.

Furthermore, they are deductible from the corporate income tax base, are subject to the social levy at the rate of 16%, and are excluded from the basis for assessment of the social security contributions, within the limit of the higher of the following two values: 5% of the PASS or 5% of the remuneration taken into account within the limit of five times the PASS.

For information purposes, the contributions paid by the Company in 2022, for the period from June 1 to December 31, 2022, to the third party responsible for managing the aforementioned supplementary defined contribution pension plan, in favor of Mr François Jackow, amounted to 5,693 euros.

Mr François Jackow's pension entitlements under this plan:

- may be applied for, at the earliest, when he has claimed his pension entitlements under the French general social security scheme;
- are estimated, as at December 31, 2022, at 14,598 euros gross per year. This amount takes into account the contributions paid by the Company for the benefit of Mr François Jackow in his capacity as an employee and then as Chief Executive Officer.

2. "Senior executive" defined contribution pension plan

Pursuant to articles L. 911-1 and L. 911-2 of the French Social Security Code, and in accordance with article L. 242-1, paragraphs 6 and 7 of the same Code, L'Air Liquide S.A. set up a defined contribution pension plan for the benefit of the senior executives, defined by reference to a collective bargaining agreement coefficient, and of corporate officers who have at least one year's length of service.

Mr François Jackow benefited from this defined contribution pension plan as a senior executive until May 31, 2022. The continued application of this plan to Mr François Jackow, from his appointment as Chief Executive Officer and until the end of his term of office, was authorized by the Board of Directors on February 15, 2022, and approved by the General Meeting as part of the remuneration policy for the Chief Executive Officer (15th resolution).

For information purposes, the contributions paid by the Company in 2022, for the period from June 1 to December 31, 2022, in favor of Mr François Jackow, amounted to 5,183 euros.

Mr François Jackow's pension entitlements under this defined contribution plan implemented for the benefit of senior executives:

- may be applied for, at the earliest, when he has claimed his pension entitlements under the French general social security scheme;
- are financed by annual contributions paid in their entirety by the Company. These contributions were set at 2.7% of the portion of remuneration that is lower than eight times the PASS. Furthermore, they are subject to the same tax and social security treatment as those paid under the PERO set up for the benefit of all the staff (see above);
- are estimated, as at December 31, 2022 at 26,115 euros gross per year.

3. Collective pension insurance contract with individual and optional subscription

Until May 31, 2022, Mr François Jackow benefited, in addition to the PERO and the defined contribution pension plan for the aforementioned senior executives, from a supplementary pension scheme applicable under certain conditions to the Group's senior executives. As this scheme is not applicable to Company Officers, Mr François Jackow could no longer benefit from it as from his appointment as a Company Officer, i.e. beginning on June 1, 2022.

To replace this plan, from June 1, 2022 until the end of his term of office as Chief Executive Officer, Mr François Jackow benefits from a collective pension insurance contract with individual and optional subscription (known as "article 82 of the French General Tax Code") for the reference portion of his remuneration [fixed remuneration + target variable remuneration] exceeding eight times the PASS.

The implementation of this scheme for the benefit of Mr François Jackow was approved by the General Meeting of May 4, 2022 as part of the Chief Executive Officer's remuneration policy (15th resolution).

Application of this mechanism to the Chief Executive Officer was determined taking into account the overall balance of his remuneration and the market conditions, and for the Company represents, for the same efficiency for the beneficiary, a 31% lower cost to the Company than that which would result from implementing a new supplementary pension plan with defined vested benefits under article L. 137-11-2 of the French Social Security Code.

Remuneration of L'Air Liquide S.A. corporate officers

Under this system, which is similar to that applying to the "article 82" supplementary pension plan applicable to Mr Benoît Potier from January 1, 2020 to May 31, 2022, the amount paid by the Company is divided between a payment to the insurer and a payment to Mr François Jackow intended to cover the social security contributions and taxes due on the payments made to the insurer. This amount is paid in arrears every year after recording the performance conditions associated with this pension plan, for the period until the end of the executive office. These contributions are deductible from the corporate income tax base and are subject to social security contributions.

Mr François Jackow cannot apply for the entitlements under this pension insurance contract in the form of capital and/or life annuity before the age at which he becomes entitled to claim his pension entitlements under the French general social security scheme.

This supplementary pension plan for the fraction of remuneration exceeding 8 PASS is entirely subject to performance conditions. The gross annual amount of payments is approximately 14.3% of the target annual fixed and variable remuneration for 2022, subject to the achievement of performance conditions: the total amount to be paid in respect of a fiscal year depends on the average annual difference between the after-tax Return on Capital Employed (ROCE) and the Weighted Average Cost of Capital (WACC) (measured on the basis of the book value of equity), calculated (on the basis of the Consolidated financial statements certified and approved by the General Meeting) over the last three fiscal years preceding the said fiscal year. For the purposes of this calculation, the gap between the ROCE and the WACC is measured for each fiscal year and the average of the three annual gaps is calculated for the last three fiscal years prior to the said fiscal year.

The performance coefficient applied to the nominal amount pursuant to the collective pension insurance contract will be determined as shown in the table below, with a growth of the increase per linear segments between each of the thresholds between 100 bps and 300 bps inclusive:

Average of the annual gaps (ROCE – WACC) over three years in bps ^(a)	Performance coefficient applied to the nominal amount
≥ 300	100%
250	66%
200	50%
100	25%
< 100	0%

(a) bps: basis points.

Compliance with the conditions set forth above is verified on an annual basis, before the Ordinary General Meeting convened to approve the financial statements for the last completed fiscal year, by the Board of Directors.

In respect of 2022, the Board of Directors on February 15, 2023, took note of the 100% achievement of the performance conditions. Accordingly, the amount to be paid in 2023 in respect of 2022 under the pension scheme with individual and optional subscription, for the period June 1, 2022 to December 31, 2022, will amount overall to 202,274 euros (split, in accordance with the remuneration policy approved by the General Meeting of May 4, 2022, between a payment of 101,137 euros (gross) to the insurer in the form of an insurance premium, and a payment of 101,137 euros (gross) to Mr François Jackow intended to cover the social security contributions and similar charges and taxes due on the payments made to the insurer).

Consequently, in respect of this fiscal year (for the period June 1, 2022 to December 31, 2022), as part of the collective pension insurance contract with individual and optional subscription:

- the total amount paid corresponds to around 14.3% of the target annual fixed and variable remuneration for 2022;
- in the event of a conversion of the capital paid to the insurer into a life annuity, Mr François Jackow's rights under this scheme are estimated, at December 31, 2022, and including the payment to be made in 2023 in respect of the 2022 fiscal year, at 4,045 euros gross per year.

B. Commitments relating to termination of duties

1. Termination indemnities

Mr François Jackow, who decided to end his employment contract unilaterally as of his appointment as Chief Executive Officer, benefits from a termination indemnity, subject to very strict triggering conditions similar to those that applied to the Chairman and Chief Executive Officer.

This scheme was authorized by the Board of Directors on February 15, 2022, on the recommendation of the Remuneration Committee, and approved by the General Meeting of May 4, 2022 as part of the Chief Executive Officer's remuneration policy (15th resolution).

The main terms of the termination indemnity applicable to Mr François Jackow are as follows:

- only the cases of forced departure of Mr François Jackow from his term of office as Chief Executive Officer (removal from office, request for resignation) related to a change of strategy or a change in control (in the latter case, the termination indemnity is due, if the departure occurs within six months of the change of control) may give rise to an indemnity;
- the amount of the indemnity in any of these cases is set at 24 months of annual gross fixed and variable remuneration actually paid (24 months of fixed remuneration + last two annual variable remuneration amounts actually paid) on the date of termination of his duties (subject to the exceptions described below and in paragraph B.2). As an exception to this rule, in the event of departure during the course of the 2022 fiscal year, the amount of indemnity would have been limited to 12 months of fixed and variable remuneration (sum of the annual fixed remuneration for 2022 and the target annual variable remuneration for 2022); in the event of departure during the two following fiscal years (2023 or 2024), for the calculation of the indemnity of 24 months of fixed and variable remuneration, will be taken into account, concerning the variable remuneration, the target variable remuneration awarded in the absence of variable remuneration paid in respect of a fiscal year (for each fiscal year concerned), and the annual fixed remuneration of the ongoing fiscal year and that of the previous fiscal year;

- the amount of the indemnity due decreases gradually as Mr François Jackow, in his capacity as Chief Executive Officer, approaches the age limit defined in the Company's articles of association; in the event of a forced departure in the 24 months preceding the date of departure due to the age limit set by the articles of association, the amount of the indemnity due will be capped at the number of months' gross remuneration separating the date of forced departure from the date when he reaches such age limit; in any event, no indemnity shall be paid should the beneficiary claim his pension entitlements on the date of his forced departure;
- the right to payment of the indemnity is subject to the achievement of the performance conditions, the proportion of the indemnity due decreasing depending on the rate of achievement of such conditions (see below for details of the performance conditions).

Performance conditions applicable to the termination indemnity

The payment of the termination indemnity concerning Mr François Jackow is subject to compliance, duly acknowledged by the Board of Directors at the time of or subsequent to the termination of his duties, with conditions related to the beneficiary's performance assessed in light of the Company's performance, defined as of today as follows:

Entitlement to the indemnity referred to above shall depend on, and the amount of the indemnity paid will be adjusted on the basis of, the average of the annual gap between the Return on Capital Employed after tax (ROCE) and the Weighted Average Cost of Capital (WACC) (assessed using the net equity method), calculated (on the basis of the certified Consolidated financial statements, approved by the General Meeting) with respect to the last three fiscal years prior to the fiscal year during which the departure occurs. For the purposes of this calculation, the gap between the ROCE and the WACC will be measured with regard to each fiscal year, and the average of the three annual gaps for the last three fiscal years prior to the fiscal year during which such departure takes place will be calculated.

Given the fundamental importance, in the highly capital-intensive industrial gas industry, of the management and control of investment processes, this gap makes it possible to measure the regular creation of value over the three years prior to the departure.

The proportion of the indemnity due will be established as indicated in the table below, with an increase in the indemnity by straight-line segments between each of the thresholds between 100 bps and 300 bps inclusive:

Average of the annual gaps (ROCE – WACC) over three years in bps ^(a)	Proportion of indemnity due
≥ 300	100%
250	66%
200	50%
100	25%
< 100	0%

(a) bps: basis points.

2. Indemnity relating to a non competition commitment

As Chief Executive Officer, Mr François Jackow receives a non-competition indemnity in exchange for his commitment not to serve, directly or indirectly, a business competing with that of the Group, for a period of two years from the date of termination of his term of office.

This scheme, authorized by the Board of Directors on February 15, 2022 and approved by the General Meeting of May 4, 2022 as part of the remuneration policy for the Chief Executive Officer (15th resolution), was put in place to protect the Company's legitimate interests.

The amount of this indemnity, payable monthly, would be equal to one year of gross annual fixed and variable remuneration received by the Chief Executive Officer (excluding sums received in respect of long-term variable remuneration), wherein the **aggregated termination indemnity and non-competition indemnity are capped at 24 months of annual gross fixed and variable remuneration** paid to the Chief Executive Officer on the date on which he ends his term of office.

Payment of the non-competition indemnity shall not apply from the moment the Chief Executive Officer exercises his pension entitlements. In any event, no indemnity shall be paid beyond age 65.

The Board of Directors reserves the right to fully or partially waive the non-competition commitment upon the departure of the Chief Executive Officer, in which case no indemnity will be owed.

3. Unemployment insurance for company managers and corporate officers

As a Company Officer and in view of the fact that he decided to terminate his employment contract as from his appointment as Chief Executive Officer, Mr François Jackow benefits from the unemployment insurance for company managers and corporate officers taken out by the Company since June 1, 2022.

This scheme was authorized by the Board of Directors on February 15, 2022 and approved by the General Meeting of May 4, 2022 as part of the Chief Executive Officer's remuneration policy (15th resolution).

The contributions paid by the Company under this scheme are included in Mr François Jackow's remuneration as benefits in kind.

TABLE 8 – PAGE 238, TABLE 9 – PAGE 239 AND TABLE 10 – PAGE 241

TABLE 11.

The table shown below presents a summary of the commitments relating to the termination of the duties of the Executive Officer, as set out above.

Executive Officer	Employment contract	Supplementary pension plan (see details above)	Indemnities or benefits due or that may be due on termination or a change of duties (see details above)	Indemnity relating to a non-compete clause
François Jackow Chief Executive Officer (CEO) Start date of term of office: 2022 Date of end of term of office: May 31, 2026	NO	Collective pension insurance contract with individual and optional subscription: YES Mandatory company pension savings plan from January 1, 2021 (formerly defined contribution pension plan): YES Defined contribution pension plan for senior managers and executives: YES	Termination indemnity: YES <ul style="list-style-type: none"> ■ Applicable in the event of a forced departure related to a change of strategy or control; ■ Maximum amount of 24 months of gross fixed and variable remuneration (exception to this rule, in the event of departure during the 2022 fiscal year); ■ Subject to performance conditions; ■ Reduction as he approaches the age limit in the articles of association, exclusion if the beneficiary claims his pension entitlements on the date of forced departure. 	YES <ul style="list-style-type: none"> ■ Amount equal to one year of gross annual fixed and variable remuneration; ■ Cumulative termination indemnity and non-competition indemnity capped at 24 months of gross annual fixed and variable remuneration at the date of termination of duties; ■ Exclusion if the person concerned claims his / her pension rights. No indemnity may be paid beyond the age of 65; ■ The Board of Directors reserves the right to waive all or part of the non-competition commitment upon the departure of the Chief Executive Officer.

N.B.: the stock options and the performance shares are lost in the event of a resignation or removal from office for serious cause during the vesting period. In other cases of departure, the principle of proration applies depending on the Executive Officer's actual presence in the Group during the period of assessment of the performance conditions – see page 197.

2.3. REMUNERATION OF THE CHAIRMAN OF THE BOARD OF DIRECTORS (FROM JUNE 1, 2022)

The gross annual remuneration before tax of the Chairman of the Board of Directors ⁽¹⁸⁾, including benefits in kind, from June 1 to December 31, 2022 is indicated in Table 2 below:

TABLE 2. SUMMARY OF THE REMUNERATION OF THE CHAIRMAN OF THE BOARD OF DIRECTORS (SINCE JUNE 1, 2022)

	For information, reminder of previous years:		2022	
	2021			
	Amounts awarded	Amounts paid	Amounts awarded	Amounts paid
<i>(in thousands of euros, rounded off)</i>				
Benoît Potier – Chairman of the Board ^(a)				
Fixed remuneration	N/A	N/A	467	467
<i>including remuneration in respect of his term of office as Director</i>	N/A	N/A	N/A	N/A
Variable annual remuneration	N/A	N/A	N/A	N/A
Benefits in kind	N/A	N/A	2	2
TOTAL	0	0	468	468

(a) During the 2022 fiscal year, the Company also paid contributions to external organizations for the benefit of Mr Benoît Potier for the period from June 1 to December 31, 2022, in respect of the collective death and disability plan (5,932 euros). This plan is detailed below.

⁽¹⁸⁾ The Chairman of the Board of Directors does not receive any remuneration from Group companies other than L'Air Liquide S.A.

Pursuant to the provisions of the AFEP/MEDEF Code (article 26-2) and in accordance with the policy approved by the General Meeting of May 4, 2022, the Chairman under the separate governance mode was awarded only fixed remuneration, excluding any variable remuneration, LTI or any exceptional remuneration.

2.3.1. Fixed remuneration

In accordance with the policy approved by the General Meeting of May 4, 2022, the fixed remuneration was determined taking into account the specific role of the Chairman of the Board of Directors in a context of managerial succession and the missions that the Board of Directors wished to entrust Mr Benoît Potier for the duration of the transition in order to benefit from his experience, his in-depth knowledge of the Group and its businesses, its Shareholders and stakeholders and its strategic challenges.

As announced, Mr Benoît Potier's annual fixed remuneration for 2022 amounts to 800,000 euros. For the 2022 fiscal year, the latter, calculated on a pro rata basis for the period from June 1 to December 31, 2022, amounts to a total of 466,667 euros.

2.3.2. Other elements of annual remuneration

Mr Benoît Potier exercised his rights to mandatory retirement as from the termination of his duties as Chief Executive Officer, as well as his rights acquired under the various supplementary pension schemes set up within the Company with the exception of the collective pension insurance contract with individual and optional enrollment (see below). No new amounts are due from the Company in respect of the pension rights of Mr Benoît Potier as Chairman of the Board of Directors.

The Chairman of the Board of Directors has a company car as a benefit in kind.

Death and disability benefits plan

In respect of his duties as Chairman and Chief Executive Officer, Mr Benoît Potier benefited, until May 31, 2022, from the additional "incapacity, disability, death" benefits plan, unified as from January 1, 2015, covering all the personnel and the corporate officers who are duly authorized to benefit from such plan. The continuation of this insurance plan (life insurance only) for the benefit of Mr Benoît Potier, from his appointment as Chairman of the Board of Directors, was authorized by the Board of Directors on February 15, 2022, and approved by the General Meeting as part of the remuneration policy for the Chairman of the Board (16th resolution).

This unified pension plan provides, in particular, for life insurance:

- the granting to beneficiaries of a death benefit, the maximum amount of which is set at 120 times the PASS in the event of an accident;

The life insurance contract entered into with the insurer specifies the limits of the benefits for the same insured party:

- full coverage by the Company of contributions calculated as a percentage of the Reference Remuneration, which is capped at 24 times the PASS for the death benefit.

The contribution rate for 2022 amounts to 1.10% of the Reference Remuneration up to 16 PASS and to 0.89% between 16 and 24 PASS. These contributions are deductible from the corporate income tax base, are subject to the social levy at a rate of 8%, and are excluded from the basis for assessment of the social security contributions, within the limit of an amount equal to the sum of 6% of the PASS and 1.5% of the remuneration taken into account within the limit of 12% of the PASS.

The contribution paid by L'Air Liquide S.A. in 2022, for the period from June 1, 2022 to December 31, 2022, in respect of the death and disability benefits plan for the benefit of Mr Benoît Potier, amounts to 5,932 euros and this amount is also disclosed in the footnotes to Table 2 - supra).

2.4. REMUNERATION RATIOS – ANNUAL VARIATION IN THE REMUNERATION, PERFORMANCE AND RATIOS

Pursuant to article L. 22-10-9 of the French Commercial Code, the ratios between the level of remuneration of the Chairman and Chief Executive Officer, Chief Executive Officer and Chairman of the Board of Directors (and of the Senior Executive Vice President for the period of exercise of this mandate) and the average and median remunerations ⁽¹⁹⁾ of L'Air Liquide S.A.'s employees are disclosed below, as well as, where applicable, their annual change and the change in the Company's performances and in the average remuneration of the Company's employees over the five most recent fiscal years. To take into account the comments of certain investors along with the AMF and the Haut Comité de gouvernement d'entreprise (French High Committee on Corporate Governance), the following table includes a comparison (since the previous year) with the "whole of France" consolidated scope. This scope represents more than 95% of the employees present in France. The calculations for this scope are given for four fiscal years for the Chairman and Chief Executive Officer (i.e. 2019, 2020, 2021 and 2022) and only for the past fiscal year for the Chief Executive Officer and the Chairman of the Board of Directors.

It is specified that in order to comply with the spirit of the AFEP guidelines, allow a relevant comparison with employees, and ensure continuity in the information communicated in successive Universal Registration Documents, the remuneration of the Chairman and Chief Executive Officer (who held these positions until May 31, 2022), as well as of the Chief Executive Officer and the Chairman of the Board of Directors (who held these positions from June 1, 2022) have been annualized.

⁽¹⁹⁾ On a full-time equivalent basis.

REMUNERATION RATIOS ^(a)

Chairman and Chief Executive Officer (Benoît Potier, from May 10, 2006 to May 31, 2022)	2017	2018	2019	2020 ^(g)	2021 ^{(b) (g)}	2022 ^{(c) (g) (e)}
Remuneration ratio compared to the Company employees average ^(d)	50	50	50	40	40	28
N/N-1 change in %	-12.3%	—%	0.0%	-20.0%	-1.4%	-29.4%
Remuneration ratio compared to the Company employees median ^(d)	72	73	73	57	58	40
N/N-1 change in %	-8.9%	1.4%	0.0%	-21.9%	0.4%	-29.7%
Remuneration ratio compared to the Group employees average in France ^(f)			95	76	77	56
N/N-1 change in %			N/A	-20.0%	1.7%	-28.0%

Chief Executive Officer (François Jackow, as from June 1, 2022)	2017	2018	2019	2020	2021	2022 ^{(e) (e) (h)}
Remuneration ratio compared to the Company employees average ^(d)	N/A	N/A	N/A	N/A	N/A	33
N/N-1 change in %	N/A	N/A	N/A	N/A	N/A	
Remuneration ratio compared to the Company employees median ^(d)	N/A	N/A	N/A	N/A	N/A	48
N/N-1 change in %	N/A	N/A	N/A	N/A	N/A	
Remuneration ratio compared to the Group employees average in France ^(f)	N/A	N/A	N/A	N/A	N/A	65
N/N-1 change in %	N/A	N/A	N/A	N/A	N/A	

Chairman of the Board (Benoît Potier, as from June 1, 2022)	2017	2018	2019	2020	2021	2022 ^{(c) (e)}
Remuneration ratio compared to the Company employees average ^(d)	N/A	N/A	N/A	N/A	N/A	6
N/N-1 change in %	N/A	N/A	N/A	N/A	N/A	
Remuneration ratio compared to the Company employees median ^(d)	N/A	N/A	N/A	N/A	N/A	9
N/N-1 change in %	N/A	N/A	N/A	N/A	N/A	
Remuneration ratio compared to the Group employees average in France ^(f)	N/A	N/A	N/A	N/A	N/A	13
N/N-1 change in %	N/A	N/A	N/A	N/A	N/A	

Senior Executive Vice President (Pierre Dufour, from November 8, 2007 to May 3, 2017)	2017 ^(e)
Remuneration ratio compared to the Company employee average ^(d)	18
N/N-1 change in %	-18.2%
Remuneration ratio compared to the Company employee median ^(d)	26
N/N-1 change in %	-16.1%

(a) Per the AFEF guidelines, the remuneration is presented in respect of the year in question and includes:

For Executive Officers and employees:

Base salary, variable remuneration in respect of the year (paid in year N+1), benefits in kind, attribution of performance shares/stock options valued in accordance with the IFRS standard at their attribution date. For the Company Officers, these elements and the corresponding amounts due or awarded in respect of 2022 are contained on pages 210 to 214, 217 to 222 and 226 of the Universal Registration Document.

For employees:

Individual bonuses (seniority bonuses, study bursary, vacation, accommodation, transportation, etc.), profit-sharing bonus, incentives, and employer's contribution on profit-sharing/incentives.

The post-employment benefits, and notably the pension and similar commitments have not been taken into account in the calculations. For the Chairman and Chief Executive Officer, these elements are presented on pages 214 to 216. The only amount that will be paid directly to Mr Benoît Potier in 2023 in respect of 2022 relates to the collective pension insurance contract that has been set up, following legislative changes and in accordance with the remuneration policy, as of January 1, 2020, to replace the acquisition of conditional rights under the defined benefit pension plan with effect from that date and in order to maintain equivalent rights to those that would have existed under this plan, if it could have been maintained for Mr Benoît Potier. This amount stands at 70,834 euros in respect of the period from January 1 to May 31, 2022 and is intended to cover the social security contributions and taxes due on the payments made to the insurer pursuant to the collective pension insurance contract. Taking this amount into consideration, the ratios for 2022 on the Company scope amount to 28 (remuneration ratio compared to the employee average) and 41 (remuneration ratio compared to the employee median), and to 57 for the whole of France scope (remuneration ratio compared to the employee average in France), i.e. a low impact.

For the Chief Executive Officer, these elements are presented on pages 223 to 225. The only amount that will be paid directly to Mr François Jackow in 2023 in respect of 2022 relates to the collective pension insurance contract from which he benefits from June 1, 2022. This amount stands at 101,137 euros in respect of the period from June 1 to December 31, 2022 and is intended to cover the social security contributions and taxes due on the payments made to the insurer pursuant to the collective pension insurance contract. Taking this amount into consideration, the ratios for 2022 for the Company amount to 34 (remuneration ratio compared to the employee average) and 49 (remuneration ratio compared to the employee median), and to 67 for the whole of France scope (remuneration ratio compared to the employee average in France), i.e. a low impact.

- (b) The data for 2021, which had been presented as an estimate, based on the nominal/target variable component in the 2021 Universal Registration Document, has been updated.
- (c) The data for 2022 is presented as an estimate, based on the nominal/target variable component (value of variable components in respect of 2022 not known for the entire scope of the Company at the date of publication). The final ratios based on the variable remunerations paid in respect of 2022 will be published in the 2023 Universal Registration Document.
- (d) L'Air Liquide S.A. is the listed company, which has more than 1,000 employees (Head Office, R&D, Innovation, and European Projects). The calculation takes into account employees continuously in post over two consecutive years from 2017 to 2022.
- (e) On an annual basis.
- (f) The scope of the Group in France represents more than 95% of the Group's employees present in France (representing more than 11,500 employees). The calculation takes into account employees continuously in post over two consecutive years from 2018 to 2022.
- (g) The ratios are presented after taking into account the proration of LTI grants under the 2021 and 2022 plans for Mr Benoît Potier.
NB: No LTI grant to Mr Benoît Potier in 2022 (year of departure).
- (h) Allocation of Chief Executive Officer's LTI in 2022 (annualized basis).

COMPARATIVE CHANGES IN REMUNERATION ⁽²⁰⁾ AND PERFORMANCES

	2018/2017	2019/2018	2020/2019	2021/2020 ^(a)	CAGR ^(d) 5 years	
					2022/2021 ^{(a) (b)}	2017-2022 ^(b)
Chief Executive Officer	N/A	N/A	N/A	N/A	N/A	N/A
Chairman	N/A	N/A	N/A	N/A	N/A	N/A
Chairman and CEO	4.8%	1.1%	-18.5% ^(f)	-0.4% ^(f)	-26.7% ^(f)	-8.2% ^(f)
Senior Executive Vice President	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Company employee average	4.1%	1.5%	1.9%	1.9%	3.7%	3.2%

	2018/2017	2019/2018	2020/2019	2021/2020	CAGR ^(d) 5 years	
					2022/2021	2017-2022
Published growth in revenue	3.3%	4.3%	-6.5%	13.9%	28.3%	8.0%
Comparable growth in revenue ^(c)	6.1%	3.2%	-1.3%	8.2%	7.0%	nd
Published growth in net profit (Group share)	-3.9%	6.1%	8.6%	5.6%	7.3%	4.6%
Growth in net profit recurring (Groupe share) ^(e)	4.2%	11.1%	1.5%	9.9%	22.9%	9.3%

- (a) The data for 2021, which had been presented as an estimate, based on the nominal/target variable component in the 2021 Universal Registration Document, has been updated.
- (b) On an annual basis.
The data for 2022 is presented as an estimate, based on the nominal/target variable component (value of variable components in respect of 2022 not known for the entire scope of the Company at the date of publication).
- (c) See definition on page 61 of this 2022 Universal Registration Document.
- (d) CAGR: Compound Annual Growth Rate.
- (e) See definition of net profit recurring (Group share) on page 62 of the 2022 Universal Registration Document and reconciliations respectively on page 49 of the 2017 Reference Document, page 69 of the 2018 Reference Document, page 61 of the 2019 Universal Registration Document, page 57 of the 2020 Universal Registration Document, page 58 of the 2021 Universal Registration Document.
- (f) The ratios are presented after taking into account the proration of LTI grants under the 2021 and 2022 plans for Mr Benoît Potier.
NB: No LTI grant to Mr Benoît Potier in 2022 (year of departure).

⁽²⁰⁾ See definition on the preceding page.

3. Remuneration of the non-executive Directors (including information stated in article L. 22-10-9 I of the French Commercial Code)

The remuneration referred to below is paid to the non-executive Directors pursuant to article L. 22-10-14 of the French Commercial Code. Remuneration of non-Executive Directors in respect of the 2022 fiscal year was calculated according to the remuneration policy approved by the General Meeting on May 4, 2022 (17th resolution) and outlined in the 2021 Universal Registration Document (on page 212 of the document for these Directors).

3.1. REMUNERATION IN RESPECT OF 2020, 2021 AND 2022

TABLE 3. REMUNERATION RECEIVED BY THE GROUP'S NON-EXECUTIVE AND NON-EMPLOYEE CORPORATE OFFICERS

(in euros)		Amounts paid in 2021 in respect of 2020	Amounts paid in 2022 in respect of 2021	Amounts paid in 2023 in respect of 2022
Thierry Peugeot ^(a)	Total	-	29,333	-
	% fixed remuneration	29	28	-
	% variable remuneration	71	72	-
Karen Katen ^(b)	Total	28,833	-	-
	% fixed remuneration	29	-	-
	% variable remuneration	71	-	-
Jean-Paul Agon ^{(c) (d)}	Total	104,250	141,500	60,167
	% fixed remuneration	48	42	44
	% variable remuneration	52	58	56
Siân Herbert-Jones ^(e)	Total	92,250	95,500	90,000
	% fixed remuneration	43	42	44
	% variable remuneration	57	58	56
Sin Leng Low ^(d)	Total	62,250	81,500	29,833
	% fixed remuneration	32	25	28
	% variable remuneration	68	75	72
Annette Winkler ^(f)	Total	93,416	151,000	136,500
	% fixed remuneration	29	26	29
	% variable remuneration	71	74	71
Geneviève Berger	Total	64,000	87,500	83,500
	% fixed remuneration	31	23	24
	% variable remuneration	69	77	76
Brian Gilvary ^(g)	Total	76,750	64,000	-
	% fixed remuneration	26	23	-
	% variable remuneration	74	77	-
Xavier Huillard ^(h)	Total	79,000	121,500	124,833
	% fixed remuneration	38	33	43
	% variable remuneration	62	67	57
Pierre Dufour ⁽ⁱ⁾	Total	32,166	-	-
	% fixed remuneration	36	-	-
	% variable remuneration	64	-	-
Anette Bronder ^{(j) (m)}	Total	29,833	71,000	88,000
	% fixed remuneration	45	28	23
	% variable remuneration	55	72	77
Kim Ann Mink ⁽ⁱ⁾	Total	29,833	59,000	91,000
	% fixed remuneration	45	34	22
	% variable remuneration	55	66	78
Pierre Breber ^{(k) (l)}	Total	-	22,667	-
	% fixed remuneration	-	51	-
	% variable remuneration	-	49	-
Bertrand Dumazy ^(k)	Total	-	29,833	61,000
	% fixed remuneration	-	45	33
	% variable remuneration	-	55	67
Aiman Ezzat ^(k)	Total	-	29,833	65,500
	% fixed remuneration	-	45	31
	% variable remuneration	-	55	69
TOTAL		692,581	984,166	830,333

(a) Term of office ended on May 4, 2021.

(b) Term of office ended on May 5, 2020.

(c) The indicated amounts include additional remuneration for acting as Chair of the Appointments and Governance Committee (10,000 euros from 2017 to 2020 and 20,000 euros as of 2021) and additional remuneration of 20,000 euros (calculated pro rata in 2022 for the period from January to May, 2022) for acting as Lead Director.

(d) Term of office ended on May 4, 2022.

(e) The indicated amounts include additional remuneration of 20,000 euros for acting as Chair of the Audit and Accounts Committee.

(f) The indicated amounts include additional remuneration of 20,000 euros for acting as Chair of the Environment and Society Committee since May 2020.

(g) Term of office ended (by resignation) on September 15, 2021.

(h) The indicated amounts include additional remuneration for acting as Chair of the Remuneration Committee (10,000 euros from 2018 to 2020 and 20,000 euros as of 2021) and additional remuneration of 20,000 euros (calculated pro rata for the period from May to December, 2022) for acting as Lead Director since May 2022.

(i) Term of office ended on May 5, 2020. Mr Pierre Dufour received remunerations as Director since July 14, 2017 (date on which his executive duties in the Group ended).

(j) Term of office begun on May 5, 2020.

(k) Term of office begun on May 4, 2021.

(l) Term of office ended (by resignation) on November 26, 2021.

(m) Term of office ended (by resignation) on January 3, 2023.

The non-executive Directors did not receive any remuneration other than that mentioned in the above table.

In accordance with the remuneration policy, the Chairman and Chief Executive Officer did not receive any remuneration pursuant to article L. 225-45 paragraph 1 in respect of his office as Director when he performed executive duties at L'Air Liquide S.A. The Chief Executive Officer, since his appointment effective June 1, 2022, does not receive any remuneration in respect of his office as Director.

Within the scope of the agreement entered into with the various stakeholders and pursuant to the provisions in force at the Group, which apply to all employees who serve on the Boards of Directors of Group companies, it was agreed that the employee Directors would not receive any remuneration for their office as Director ⁽¹⁾.

3.2. CRITERIA

The maximum amount of the sum to be allocated in total to the members of the Board of Directors was set by the General Meeting on May 5, 2020 at 1.3 million euros per fiscal year (12th resolution).

As per the remuneration policy approved by the General Meeting on May 4, 2022, the formula for allocating Directors' remuneration seeks to ensure **pay is competitive with international peers to attract the best and most suitable talent and expertise, in accordance with the Board's diversity policy.**

It comprises fixed remuneration and variable remuneration based on lump-sum amounts per meeting, thereby taking into account the **actual participation of each Director in the work of the Board and its Committees/working group**, as well as a fixed amount per trip for Directors traveling from abroad. **The variable remuneration for participation at the Board and Committee meetings is more important than the fixed remuneration.**

Pursuant to the policy approved by the General Meeting of May 4, 2021, (i) the fixed remuneration allocated to Committee Chairs has now been harmonized, as their functions involve significantly comparable responsibilities, likewise the amount of the remuneration allocated for attending each Committee meeting and (ii) remote attendance of meetings is remunerated in the same way as attending in person in order to take into account the quality of means of communication allowing members connecting via video-conference to attend meetings and take part in discussions under conditions that are equivalent to them being physically present at meetings. While it does not alter the preference of the Board and its members to attend meetings in person where possible, it recognizes the advances in communication technologies. Since the end of the health crisis, meetings have been held mainly in person.

For 2022, the amounts applied, unchanged since last year, break down as follows:

3.2.1. Fixed remuneration (for an entire fiscal year)

- Each member receives fixed annual remuneration set at 20,000 euros.
- The Chairs of the Audit and Accounts Committee, the Appointments and Governance Committee, the Remuneration Committee and the Environment and Society Committee receive additional fixed annual remuneration of 20,000 euros.
- The Lead Director receives additional fixed annual remuneration of 20,000 euros.

3.2.2. Variable remuneration

Attendance at the various meetings is remunerated as follows:

■ a meeting of the Board of Directors	5,500 euros
■ a meeting of the Audit and Accounts Committee	4,500 euros
■ a meeting of the Appointments and Governance Committee	4,500 euros
■ a meeting of the Remuneration Committee	4,500 euros
■ a meeting of the Environment and Society Committee	4,500 euros
■ a joint session of the Audit Committee and the Environment and Society Committee	4,500 euros
■ a meeting of the Working Group "Shareholder Relations"	3,500 euros
■ one trip for a non-resident:	
– in Europe	3,000 euros
– Intercontinental	6,000 euros

Travel expenses incurred by non-French residents at the time of their trips to meetings are reimbursed by the Company.

⁽¹⁾ Mr Philippe Dubrulle receives remuneration pursuant to his employment contract with Air Liquide Advanced Technologies. Ms Fatima Tighlaline receives remuneration pursuant to her employment contract with VitalAire.

4. Elements of the 2022 remuneration of the Company Officers on which the General Meeting of May 3, 2023 is invited to vote (pursuant to article L.22-10-34 II of the French Commercial Code)

4.1. ELEMENTS OF THE 2022 REMUNERATION OF THE CHAIRMAN AND CHIEF EXECUTIVE OFFICER (FROM JANUARY 1, 2022 TO MAY 31, 2022)

ELEMENTS OF THE TOTAL REMUNERATION AND BENEFITS OF ANY KIND PAID DURING OR AWARDED IN RESPECT OF THE FISCAL YEAR ENDED DECEMBER 31, 2022 TO MR BENOÎT POTIER (FOR THE PERIOD FROM JANUARY 1, 2022 TO MAY 31, 2022) AND ON WHICH THE GENERAL MEETING OF MAY 3, 2023 IS INVITED TO VOTE:

	Amounts in respect of the past fiscal year or accounting valuation	Comments
Fixed remuneration	€ 552,083	In accordance with the remuneration policy established by the Board of Directors on February 15, 2022 and approved by the General Meeting on May 4, 2022, the fixed remuneration was determined taking account of the level of responsibilities, the experience in executive management duties and market practices. As announced, the amount of the 2022 fixed annual remuneration of the Chairman and Chief Executive Officer is 1,325,000 euros, identical since 2018, calculated pro rata over the period from January 1 to May 31, 2022, amounts to 552,083 euros .
Annual variable remuneration	€ 921,979	Variable remuneration in respect of 2022 (from January 1 to May 31, 2022): The target variable remuneration is equal to 150% of the fixed remuneration. The variable remuneration is limited to 167% of the fixed remuneration. The target variable remuneration is linked in 2022: <ul style="list-style-type: none"> ■ For 105% of the fixed remuneration (with a maximum of 122% of the fixed remuneration), to two (quantifiable) financial criteria which are based on: (i) for 75% (a max. of 87%) of the fixed remuneration, an objective of an increase in recurring net earnings ^(a) excluding foreign exchange impact per share (hereinafter the "recurring EPS"); (ii) for 30% (a max. of 35%) of the fixed remuneration, an objective of comparable growth in consolidated revenue ^(b). <p>For each criterion, the Board of Directors had defined a target objective. The target objectives were exacting and were completely consistent with the trajectory of the main objectives of the company program.</p> <p>A formula adopted by the Board makes it possible to calculate the amount of the variable remuneration due (within a maximum limit) by taking into account, on the basis of the Consolidated financial statements for the fiscal year, the value achieved for the criterion as compared to the target objective set.</p> <p>The achievement of each performance condition is assessed without any set-off between criteria.</p> <p>The objectives are not made public for confidentiality reasons. Nevertheless, the rate of achievement of each objective for the variable remuneration (as a percentage of the fixed remuneration and as a percentage of the target variable remuneration allocated to that criterion) is communicated hereafter;</p> <ul style="list-style-type: none"> ■ For 45% of the fixed remuneration (target and maximum variable remuneration), personal criteria (qualitative) related to: (i) for one third, Corporate Social Responsibility (hereinafter "CSR") (Safety and reliability: continue efforts to improve safety (lost time accident frequency rate, road traffic accidents and job-related accidents); Roll-out of the action plans relating to the Group's new sustainable development objectives; progress made concerning the various key indicators and harmonization with the 2025 trajectory for these new objectives); (ii) for one third, Organization/Human Resources (management succession plans, hand-over in the context of succession); (iii) for one third, individual performance (this criterion responds to the Board of Directors' desire to keep a part of the variable remuneration subject to the Board's assessment, in order to take account of the unpredictability of the environment. This may be beneficial to the Executive Officer, if the Company is facing an unfavorable environment which was not anticipated at the time the objectives were set, or disadvantageous if the environment ultimately turns out to be more favorable than anticipated.)

(a) Excluding significant and exceptional transactions that do not impact the operating income recurring. The calculation is based on the 2022 recurring net profit (Group share) excluding the foreign exchange impact (as compared to 2021).

(b) Excluding significant scope impact, foreign exchange impact and energy.

Amounts in respect
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year or accounting
valuation

Comments

Assessment for 2022:

Following an excellent year in 2022, the objectives of the quantifiable criteria were carried out to the maximum achievement level.

The amount of the variable remuneration relating to the financial criteria is as follows:

- **Recurring EPS:** 87% of the fixed remuneration, representing 116% of the target remuneration for this criterion;
- **Revenue:** 35% of the fixed remuneration, representing 116% of the target remuneration for this criterion.

The amount of the variable remuneration relating to the qualitative criteria is as follows:

- **CSR:** 15% of the fixed remuneration, representing 100% of the target remuneration for this criterion;
- **Organization/Human Resources:** 15% of the fixed remuneration, representing 100% of the target remuneration for this criterion;
- **Individual performance:** 15% of the fixed remuneration, representing 100% of the target remuneration for this criterion.

The amount of the variable remuneration relating to the personal objectives is thus 45% of the fixed remuneration, representing 100% of the target remuneration for the personal objectives.

The Board of Directors noted the following elements:

CSR:

Performance was considered excellent:

■ **Safety and reliability:**

Based on the estimated hours worked, the lost-time accident frequency rate for Group employees stood at 0.94 in 2022, compared to 1.06 in 2021. This indicator has improved compared to 2021, with a significant reduction (-11%) in the number of workplace accidents involving Group employees. A similar trend can be observed for subcontractors. Overall, 26 fewer people (whether employees or subcontractors) were injured in connection with Group activities in 2022, by comparison with 2021.

2022 was marked by the death of a subcontracted driver involving a road traffic accident. For the record, 2021 had been marked by the deaths of four subcontractors.

In 2022, under Mr Benoît Potier's supervision, the main safety programs launched in previous years were continued, notably the IMS Streamlining program, the major cornerstone of industrial safety management for the Group. In this post-Covid period, the main focus was on continuity. Mr Benoît Potier, together with all the Executive Committee members, paid considerable attention to Process Safety issues, notably by monitoring the implementation of an ambitious plan to upgrade more than 600 air separation units. It made it possible to improve safety at the Group's production sites. Its implementation continued in 2022. Almost all of the 600 units will have been upgraded over the course of these three years. The remaining units concerned will be upgraded at the start of 2023. It can be noted that Air Liquide played a leading role in influencing its peers and inviting them to work together to develop harmonized international standards for everyone's benefit.

■ **Roll-out of Action plans linked to the Group's new sustainability objectives; Progress made on the various key indicators and alignment with the 2025 trajectory linked to these objectives**

The ADVANCE Plan communicated in March 2022 confirmed the positioning of sustainable development issues at the heart of the Group's development strategy, following on from the ACT program announced by Mr Benoît Potier at the Sustainability Day on March 23, 2021.

Based on its climate commitment and the first stages of its implementation, the CDP awarded Air Liquide, in January 2022, the highest level ("Leadership Level") for its environmental commitment, which includes some of the most ambitious sustainability objectives in the sector.

In 2022, work continued and considerable progress has been made, with regard to each of the ACT program commitments.

Amounts in respect
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Comments

– **Act for the climate:**

Governance, reporting and processes for monitoring and managing CO₂ emissions were established throughout the Group at the start of 2022. Annual CO₂ budgets, which may be positive or negative depending on local factors, are now allocated to the operating entities every year and instruments have been in place for quarterly monitoring of compliance with these budgets and the impact of the activities on the 2025 Carbon trajectory since the start of the year.

During the first half, several projects were launched that contribute to the decarbonization of the Group's assets or those of its customers, and renewable energy supply agreements started to be signed around the world, following on from the previous fiscal year (construction by Air Liquide of its largest biomethane production unit in the world in the United States; memoranda of understanding signed in South Korea to explore the use of hydrogen in the decarbonization of the aviation industry, and the development of the hydrogen supply chain for mobility markets; development of hydrogen mobility in Europe; development of shipping solutions for carbon management; execution of a ten-year renewable energy purchase agreement in Italy in May 2022 with Shell Energy Europe Limited). In March 2022, Air Liquide received support from the French State for its 200 MW electrolyzer project in Normandy for which it has requested a substantial European subsidy and, in April 2022, the project to transform EQIOM's Lumbres plant, in the Hauts-de-France region, into one of the first carbon-neutral cement plants in Europe, was selected by the European Commission for funding through its Innovation Fund.

In May 2022, Air Liquide's trajectory to reduce CO₂ by 2035 was validated by the Science Based Targets initiative (SBTi) as being in line with a "below 2°" Scenario consistent with the Paris Agreement.

Finally, Mr Benoît Potier pursued his actions and maintained his involvement on the Hydrogen Council, which he co-chaired for 5 years up until the end of 2021, and for which he is now the official representative in Europe, and on the National Hydrogen Council of which he is co-Chair. He continued to play an active role in the work of the ERT (European Round Table), notably on topics related to the energy transition and Hydrogen.

– **Act for Health:**

Pursuant to the ADVANCE Plan, the Group's objective in Mature Countries is to improve the quality of life of patients living at home with chronic diseases. In this sector, the teams have continued to develop personalized care pathways that are tailored to comply with local regulations. The proportion of patients receiving care who benefited from these pathways increased significantly over the fiscal year.

In low and middle-income countries, the objective is to provide an increasing number of people with access to medical oxygen. Once again, thanks to new projects, notably in South Africa, the number of people benefiting from the "Access Oxygen" program increased in line with the previous fiscal year.

– **Act for the whole of Society:**

The programs to increase gender diversity within the population of Managers and Professionals continued, even if the result obtained of 31.5%, at the end of 2022, is slightly lower than that expected for 2022, and the objective is not called into question.

The objective has been set to extend a common basic social security cover to all employees and the roll-out of the Citizen at Work program, allowing employees to participate in social or societal projects during their working hours, has also been determined and is well on track.

The progress described above confirms that the Group has been well-positioned, since the start of 2022, with regard to the various pillars of the ACT Plan, in line with the stated goals for 2025.

Amounts in respect
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valuation

Comments

Organization and Human Resources:

Work on governance and the preparation for the succession to the Company's General Management intensified with the preparation of the February 2022 Board meeting which finalized the new governance structure, and continued up until the General Meeting at which it was presented and approved. At the same time, substantial work was carried out in the first part of the year to prepare for the changeover of management. The Human Resources objectives of the ADVANCE plan were finalized in close collaboration with Mr François Jackow and the talent management policy, in line with earlier reviews, was also transferred, in particular to anticipate changes in management teams. Close attention was paid to the changes to the Executive Committee, in preparation for the handover to Mr François Jackow and the transfer of his previous responsibilities, with notably the appointment of Mr. Ronnie Chalmers, Vice President of the Africa, Middle-East and India hub, as a member of the Executive Committee.

Numerous specific "Handover" sessions were organized on a regular basis to ensure a smooth transition and in particular the handover of subjects that were not previously under the responsibility of Mr. François Jackow in his role as Executive Vice President.

Individual performance:

Mr Benoît Potier's individual performance is considered excellent despite a mixed global context (start of the war in Ukraine, inflation, energy crisis...). His efforts to achieve the Group's objectives while at the same time preparing for his succession, the handover of responsibilities and the implementation of the new governance were highly successful. Performance in this regard was assessed at 100%.

Therefore, the total amount of the variable remuneration is above target and amounts to 921,979 euros, up by 0.91% on an annualized basis as compared to the variable remuneration for 2021. This variation between 2021 and 2022 is the result of exceeding the financial targets for the year 2022 slightly more than the same excess in 2021.

The total amount of the variable remuneration due for the 2022 fiscal year will be paid in 2023, after approval of the financial statements by the General Meeting, it being noted that its payment is conditional on the approval by a General Meeting of the elements of remuneration paid during or awarded in respect of the 2022 fiscal year to Mr Benoît Potier, in his quality as Chairman and Chief Executive Officer.

For the record, the variable remuneration paid in 2022 in respect of 2021 totaled 2,192,875 euros. It was paid following approval of the resolution relating to elements of remuneration paid or awarded to Mr Benoît Potier for 2021 (12th resolution) by the General Meeting of May 4, 2022.

There is no deferred annual variable remuneration mechanism, multi-annual variable remuneration mechanism or exceptional remuneration.

Remuneration of L'Air Liquide S.A. corporate officers

	Amounts in respect of the past fiscal year or accounting valuation	Comments												
Stock options, performance shares or any other long-term incentive	0 stock option 0 performance shares Accounting valuation of the performance shares (according to IFRS 2 norm): € 0	September 29, 2022 plan (performance shares) Principles of grant for 2022 In accordance with the provisions of the AFEP/MEDEF Code, Mr Benoît Potier did not benefit from the 2022 LTI award in respect of his term of office as Chairman and Chief Executive Officer. However, Mr Benoît Potier remains subject to the shareholding and share ownership obligations for shares and options resulting from plans prior to 2022, awarded to him in his capacity as Executive Officer, and remains bound by the other rules applicable to Company Officers relating in particular to hedging transactions.												
Other elements	N/A	No allocation.												
Remuneration as a Director	N/A	Mr Benoît Potier does not receive any remuneration in respect of his term of office as Director.												
Other benefits	€ 4,494	Benefits in kind (accounting valuation) include the use of a company car and the contributions paid to an external organization for unemployment insurance for company managers and corporate officers during the term of office as Chairman and Chief Executive Officer, exercised by Mr Benoît Potier in fiscal year 2022, i.e. for the period from January 1 to May 31, 2022.												
Termination indemnity	€ 0 received	<p>The terms of the obligation applicable since the renewal of Mr Benoît Potier's term of office as Chairman and Chief Executive Officer in 2018 were as follows: (i) only the case of forced departure linked to a change in strategy or change of control shall give rise to an indemnity; (ii) the amount of the indemnity is set at 24 months of gross fixed and variable remuneration; (iii) it shall be gradually reduced as the age limit provided in the articles of association nears; (iv) entitlement to the indemnity shall be subject to performance conditions which were adjusted in 2018, with the advancement thresholds having been made more demanding: the amount of the indemnity paid depends on the average of the annual gap between the Return on Capital Employed after tax (ROCE) and the Weighted Average Cost of Capital (WACC) (assessed using the book value of equity), over the last three fiscal years prior to the departure. This gap, in a highly capital-intensive business activity, makes it possible to measure the regular creation of value.</p> <p>An average gap of 300 basis points between ROCE and WACC over three years is required to be able to benefit from the total indemnity.</p> <p>The proportion of the indemnity due would be established as follows, with an increase by straight-line segments between each of the thresholds inclusive:</p> <table border="1"> <thead> <tr> <th>Average of the annual gaps (ROCE – WACC) over three years in bps (a)</th> <th>Proportion of indemnity due</th> </tr> </thead> <tbody> <tr> <td>≥ 300</td> <td>100 %</td> </tr> <tr> <td>250</td> <td>66 %</td> </tr> <tr> <td>200</td> <td>50 %</td> </tr> <tr> <td>100</td> <td>25 %</td> </tr> <tr> <td>< 100</td> <td>0 %</td> </tr> </tbody> </table> <p>(a) bps: basis points.</p> <p>The decision of the Board of Directors on February 14, 2018 relating to this indemnity was made in accordance with the regulated agreements and commitments procedure and published on the Company's website on February 16, 2018. It was approved by the General Meeting on May 16, 2018 in a specific resolution (9th resolution).</p> <p>This mechanism was maintained for Mr Benoît Potier until the date on which he ended his term of office as Chief Executive Officer (CEO), i.e. May 31, 2022. It was never implemented and is now obsolete.</p>	Average of the annual gaps (ROCE – WACC) over three years in bps (a)	Proportion of indemnity due	≥ 300	100 %	250	66 %	200	50 %	100	25 %	< 100	0 %
Average of the annual gaps (ROCE – WACC) over three years in bps (a)	Proportion of indemnity due													
≥ 300	100 %													
250	66 %													
200	50 %													
100	25 %													
< 100	0 %													
Non-competition indemnity: there is no commitment with regard to a non-competition indemnity.														

	Amounts in respect of the past fiscal year or accounting valuation	Comments												
Supplementary pension plans	€ 70,834 received (i.e. 50% of the amounts due under this plan – see comments opposite)	<p>Collective pension insurance contract</p> <p>Since supplementary conditional rights can no longer be acquired under the defined benefit pension plan as of January 1, 2020, a collective pension insurance contract with individual and optional subscription (known as "article 82 of the French General Tax Code") was introduced to replace the acquisition of rights under the defined benefit pension plan as of this date.</p> <p>Implementation of this new scheme for the benefit of Mr Benoît Potier was approved by the General Meeting of May 5, 2020 pursuant to the remuneration policy (11th resolution).</p> <p>In this scheme, the amount paid by the Company is split between a payment to the insurer and a payment to Mr Benoît Potier intended to cover the social security contributions and taxes due on the payments made to the insurer. This amount will be paid in arrears every year for the period until the end of the executive office. These contributions are deductible from the corporate income tax base and are subject to social security contributions.</p> <p>The performance conditions that apply are similar to those that applied to the defined benefit plan: the total amount of contributions for a fiscal year depends on the average annual gap between the Return on Capital Employed after tax (ROCE) and the Weighted Average Cost of Capital (WACC) (net equity method), calculated (on the basis of the certified Consolidated financial statements, approved by the General Meeting) for the last three fiscal years prior to the said fiscal year. For the purposes of this calculation, the gap between the ROCE and the WACC is measured for each fiscal year and the average of the three annual gaps is calculated for the last three fiscal years prior to the said fiscal year.</p> <p>The performance coefficient applied to the nominal amount pursuant to the collective pension insurance contract is determined as shown in the table below, with a growth of the increase per linear segment between each of the thresholds between 100 bps and 300 bps inclusive:</p> <table border="1"> <thead> <tr> <th>Average of the annual gaps (ROCE – WACC) over three years in bps ^(a)</th> <th>Performance coefficient applied to the nominal amount</th> </tr> </thead> <tbody> <tr> <td>≥ 300</td> <td>100 %</td> </tr> <tr> <td>250</td> <td>66 %</td> </tr> <tr> <td>200</td> <td>50 %</td> </tr> <tr> <td>100</td> <td>25 %</td> </tr> <tr> <td>< 100</td> <td>0 %</td> </tr> </tbody> </table> <p><i>(a) bps: basis points.</i></p> <p>In respect of 2022, the Board of Directors on February 15, 2023 took note of the 100% achievement of the performance conditions.</p> <p>Accordingly, the amount to be paid in 2023 in respect of fiscal year 2022 under the pension scheme with individual and optional subscription, for the period January 1, 2022 to May 31, 2022, will amount overall to 141,667 euros (split, in accordance with the remuneration policy approved by the General Meeting of May 4, 2022, between a payment of 70,834 euros (gross) to the insurer in the form of an insurance premium, and a payment of 70,834 euros (gross) to Mr Benoît Potier intended to cover the social security contributions and similar charges and taxes due on the payments made to the insurer).</p> <p>For the record, the amount of contributions paid in 2022 (in respect of 2021) under this scheme in favor of Mr Benoît Potier is 340,000 euros (split, in accordance with the remuneration policy approved by the General Meeting of May 4, 2022, between a payment of 170,000 euros (gross) to the insurer in the form of an insurance premium, and a payment of 170,000 euros (gross) to Mr Benoît Potier intended to cover the social security contributions and similar charges and taxes due on the payments made to the insurer).</p> <p>Pension commitment pursuant to a defined contribution pension plan ("PERO")</p> <p>Mr Benoît Potier benefits from the "PERO" defined contribution pension plan which applies to all the employees and the Company Officers, contributions to which are paid in equal shares by the employer and the beneficiary on the fraction of remuneration which does not exceed eight times the annual social security ceiling (PASS). The application of this plan to Mr Benoît Potier as from January 1, 2021 was authorized by the Board of Directors on February 9, 2021 and this item was incorporated into the remuneration policy approved by the General Meeting of May 4, 2021.</p> <p>The amount of the contributions paid in 2022, until May 31, 2022, under the supplementary defined contribution pension plan for the benefit of Mr Benoît Potier amounts to 4,066 euros.</p>	Average of the annual gaps (ROCE – WACC) over three years in bps ^(a)	Performance coefficient applied to the nominal amount	≥ 300	100 %	250	66 %	200	50 %	100	25 %	< 100	0 %
Average of the annual gaps (ROCE – WACC) over three years in bps ^(a)	Performance coefficient applied to the nominal amount													
≥ 300	100 %													
250	66 %													
200	50 %													
100	25 %													
< 100	0 %													

	Amounts in respect of the past fiscal year or accounting valuation	Comments
Collective life insurance plan	€ 0 received	<p>Since Mr Benoît Potier is no longer a beneficiary of the defined contribution pension plan for senior managers, a collective life insurance plan was entered into which makes it possible to create savings for the benefit of the beneficiary which are available at any time. The contributions paid by the Company are calculated on identical terms to those of the previous plan. The opening of this plan, for the third bracket (16 to 24 times PASS) and then the second bracket (8 to 16 times PASS), and finally its extension to the first bracket (0 to 8 times PASS) of the Reference Remuneration, at an unchanged cost for the Company, responded to a concern for good management.</p> <p>For Mr Benoît Potier, the signature of this contract, for the third and then the second bracket, was authorized by decisions of the Board of Directors on November 20, 2012 and February 13, 2013 in accordance with the regulated agreements and commitments procedure, and approved by the General Meeting on May 7, 2013 in a specific resolution (7th resolution). The extension of the plan to the first bracket concerning the band of Reference Remuneration amounting to between 0 and 8 times the annual social security ceiling was authorized by decision of the Board of Directors on November 20, 2014, in accordance with the regulated agreements and commitments procedure, and approved by the General Meeting on May 6, 2015, in a specific resolution for Mr Benoît Potier (7th resolution).</p> <p>The amount of the contributions paid in 2022 (in respect of 2021) pursuant to the life insurance plan for the benefit of Mr Benoît Potier is 222,134 euros. The amount of contributions to be paid in 2023 (in respect of 2022 for the period from January 1st to May 31, 2022) will amount to 91,897 euros.</p>
Collective death and disability benefits plan	€ 0 received	<p>Mr Benoît Potier benefits from the additional "incapacity, disability, death" benefits plan, unified as from January 1, 2015, covering all the personnel and the corporate officers who are duly authorized to benefit from such plan, in which (a) the remuneration taken into account for the calculation of the contributions is capped at (i) 16 times the annual social security ceiling for the incapacity and disability cover, (ii) 24 times the annual social security ceiling for the death cover; and (b) the rate of the employer's contribution in 2022 amounts to 1.10% up to 16 PASS and to 0.89% between 16 and 24 PASS.</p> <p>The individual application to Mr Benoît Potier of this unified benefit plan covering all the personnel, in respect of his duties as Chairman and Chief Executive Officer, was authorized by decision of the Board of Directors on November 20, 2014, in accordance with the regulated agreements and commitments procedure, and approved by the General Meeting on May 6, 2015 in a specific resolution (7th resolution).</p> <p>The amount of the contributions paid in 2022 (for the period from January 1st to May, 2022) under the death and disability benefits plan for Mr Benoît Potier amounted to 4,237 euros in respect of his duties as Chairman and Chief Executive Officer.</p>

4.2. ELEMENTS OF THE CHIEF EXECUTIVE OFFICER'S REMUNERATION IN 2022 (FROM JUNE 1 TO DECEMBER 31, 2022)

ELEMENTS OF THE TOTAL REMUNERATION AND BENEFITS OF ANY KIND PAID DURING OR AWARDED IN RESPECT OF THE FISCAL YEAR ENDED DECEMBER 31, 2022 TO MR FRANÇOIS JACKOW (FOR THE PERIOD FROM JUNE 1, 2022 TO DECEMBER 31, 2022) AND ON WHICH THE GENERAL MEETING OF MAY 3, 2023 IS INVITED TO VOTE:

	Amounts in respect of the past fiscal year or accounting valuation	Comments
Fixed remuneration	€ 641,667	In accordance with the remuneration policy established by the Board of Directors on February 15, 2022 and approved by the General Meeting on May 4, 2022, the fixed remuneration was determined taking account of the level of responsibilities, the experience in executive management duties and market practices. As announced, the amount of the 2022 fixed annual remuneration of the Chairman and CEO is 1,100,000 euros . Calculated pro-rata over the period from June 1 st to December 31, 2022, this amounts to 641,667 euros .
Annual variable remuneration	€ 912,450	<p>Variable remuneration in respect of 2022:</p> <p>The target variable remuneration is equal to 120% of the fixed remuneration. The variable remuneration is limited to 150% of the fixed remuneration. The target variable remuneration is linked in 2022:</p> <ul style="list-style-type: none"> ■ For 84% of the fixed remuneration (with a maximum of 105% of the fixed remuneration), to two (quantifiable) financial criteria which are based on: (i) for 60% (a max. of 75%) of the fixed remuneration, an objective of an increase in recurring net earnings^(a) excluding foreign exchange impact per share (hereinafter the "recurring EPS"); (ii) for 24% (a max. of 30%) of the fixed remuneration, an objective of comparable growth in consolidated revenue^(b). <p>For each criterion, the Board of Directors had defined a target objective. The target objectives were exacting and were completely consistent with the trajectory of the main objectives of the company program.</p> <p>A formula adopted by the Board makes it possible to calculate the amount of the variable remuneration due (within a maximum limit) by taking into account, on the basis of the Consolidated financial statements for the fiscal year, the value achieved for the criterion as compared to the target objective set.</p> <p>The achievement of each performance condition is assessed without any set-off between criteria.</p> <p>The objectives are not made public for confidentiality reasons. Nevertheless, the rate of achievement of each objective for the variable remuneration (as a percentage of the fixed remuneration and as a percentage of the target variable remuneration allocated to that criterion) is communicated hereafter;</p> <ul style="list-style-type: none"> ■ For 36% of the fixed remuneration (with a maximum of 45%) to personal criteria (qualitative) related to: (i) for one third, Corporate Social Responsibility (hereinafter "CSR") (Safety and reliability: continue efforts to improve safety (Lost time accident frequency rate, road traffic accidents and job-related accidents) / Roll-out of Action plans related to the Group's new sustainable development objectives; Progress made concerning the various key indicators and harmonization with the 2025 trajectory for these new objectives); (ii) for one third, Organization / Human Resources (talent development, management succession plans, diversity policy); (iii) for one third, individual performance (this criterion responds to the Board of Directors' desire to keep a part of the variable remuneration subject to the Board's assessment, in order to take account of the unpredictability of the environment. This may be beneficial to the Executive Officer, if the Company is facing an unfavorable environment which was not anticipated at the time the objectives were set, or disadvantageous if the environment ultimately turns out to be more favorable than anticipated.)

(a) Excluding significant and exceptional transactions that do not impact the operating income recurring. The calculation is based on the 2022 recurring net profit (Group share) excluding the foreign exchange impact (as compared to 2021).

(b) Excluding significant scope impact, foreign exchange impact and energy.

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Assessment for 2022:

Following an excellent year in 2022, the objectives of the quantifiable criteria were carried out to the maximum achievement level.

The amount of the variable remuneration relating to the financial criteria is as follows:

- **Recurring EPS:** 75% of the fixed remuneration, representing 125% of the target remuneration for this criterion;
- **Revenue:** 30% of the fixed remuneration, representing 125% of the target remuneration for this criterion.

The amount of the variable remuneration relating to the qualitative criteria is as follows:

- **CSR:** 12% of the fixed remuneration, representing 100% of the target remuneration for this criterion;
- **Organization/Human Resources:** 12% of the fixed remuneration, representing 100% of the target remuneration for this criterion;
- **Individual performance:** 13% of the fixed remuneration, representing 110% of the target remuneration for this criterion.

The amount of the variable remuneration relating to the personal objectives is thus 37 of the fixed remuneration, representing 103% of the target remuneration for the personal objectives.

The Board of Directors noted the following elements:

CSR:

Performance was considered very good:

■ **Safety and reliability:**

Based on the estimated hours worked, the lost-time accident frequency rate of Group employees stood at 0.94 in 2022, compared to 1.06 in 2021. This indicator has improved compared to 2021, with a significant reduction (-11%) in the number of workplace accidents involving Group employees. A similar trend can be observed for subcontractors. Overall, 26 fewer people (whether employees or subcontractors) were injured in connection with Group activities in 2022, by comparison with 2021.

2022 was marked by the death of a subcontracted driver involving a road traffic accident. For the record, 2021 had been marked by the deaths of four subcontractors.

Since taking office, Mr François Jackow has constantly stressed the importance of safety, notably during his numerous site visits in Operations, as shown in the video made during his trip to Poland on June 1, 2022. These opportunities have enabled him to promote the Group's Safety Culture, taking advantage of each of these visits to initiate a dialogue on safety with the employees encountered.

He has also regularly reiterated, for example in the editorial he wrote for the Group's HSE newsletter published in September, that the goal of "zero accidents" for employees and partners remains the Group's top priority.

In terms of action plans, he built on previous programs, stressing the need to remain focused in order to bring them to a successful conclusion, before launching other major projects. Accordingly, he continued to supervise, both personally and together with all the Executive Committee members, the progress of the IMS Streamlining program and the plan to upgrade more than 600 air separation units. In four years, more than 600 units will have been upgraded. It can be noted that Air Liquide played a leading role in influencing its peers and inviting them to work together to develop harmonized international standards for everyone's benefit.

In addition, Mr François Jackow regularly reiterated the importance of Road Safety in Air Liquide Operations, notably at the Group Management Meeting in October 2022, where he confirmed his support and involvement in the roll-out of the Group's Road Safety action plan.

Finally, in addition to these main programs, actions aimed at improving the understanding of major industrial risks were initiated in the second half of 2022, in order to enhance the safety culture among Air Liquide employees; these actions will be rolled out across the Group over the course of 2023 and 2024.

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■ **Roll-out of Action plans linked to the Group's new sustainability objectives; Progress made concerning the various key indicators and alignment with the 2025 trajectory for these new objectives**

The ADVANCE Plan communicated in March 2022, prepared as a result of close coordination between Mr François Jackow and Mr Benoît Potier, confirmed that sustainable development issues are placed at the heart of the Group's development strategy.

The objectives announced have been rolled out throughout the year and considerable progress has been made with respect to each of the ACT program commitments.

– **ACT for the Climate :**

Governance, reporting and processes for monitoring and managing CO₂ emissions have been actively rolled out across the whole Group. Annual CO₂ budgets, which may be positive or negative depending on local factors, are now allocated to the operating entities every year. Each quarter, compliance with these budgets and the impact of activities on the 2025 Carbon trajectory are analyzed and presented to the Executive Committee. The Group's CO₂ emissions are also reported and consolidated each quarter.

During the second half, several new projects were signed that contribute to the decarbonization of the Group's assets or those of its customers, together with projects for the production of low-carbon hydrogen, demonstrating the proactive implementation of the Climate objectives announced by the Group (agreement with TotalEnergie in November 2022 to produce and recover renewable, low-carbon hydrogen for the Grandpuits refinery using innovative processes; the first contracts for the production of carbon-free hydrogen in China; obtaining European subsidies for a project to decarbonize the Antwerp port platform and the backing of the Dutch government for two major electrolyzer projects in the Netherlands in December 2022). In addition, the signing of long-term renewable energy supply agreements has accelerated (e.g. the execution by AL of its largest renewable energy supply agreement in the Netherlands in June 2022).

Active communication was also maintained concerning hydrogen as an accelerator of the energy transition (the Hydrogen Generation broadcast on September 28, 2022).

Finally, all the extra-financial ratings obtained were stable in 2022 or improved by comparison with the previous fiscal year. Air Liquide was included in the Dow Jones Sustainability Europe index for the first time.

– **ACT for Health :**

The Group's objective in Mature Countries is to improve the quality of life of patients living at home with chronic diseases. In this sector, the Healthcare teams continued to develop personalized care pathways that are tailored to comply with local regulations. The proportion of patients receiving care who benefited from these pathways increased significantly over the fiscal year.

In low and middle-income countries, the objective is to provide an increasing number of people with access to medical oxygen. Once again, thanks to new projects, notably in South Africa, the number of people benefiting from the "Access Oxygen" program increased over the course of the fiscal year.

– **ACT for the whole of Society :**

The programs to increase gender diversity within the population of Managers and Professionals continued, even if the result obtained of 31.5%, at the end of 2022, is slightly lower than expected for 2022, and the objective is not called into question.

On the other hand, the generalization of a common basic social security cover for all employees and the roll-out of the Citizen at Work program, allowing employees to participate in social or societal projects during their working hours, saw considerable progress throughout the fiscal year and are currently ahead of the 2025 roadmap. Roll-out of care coverage at the end of 2022 has already reached 42%.

The action and progress described above confirm that, thanks to a structured and proactive implementation of the objectives set, the Group is well-positioned with regard to the various pillars of the ACT Commitments, in line with the 2025 trajectory for these new objectives.

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Organization and Human Resources:

The Group's talent development policy continued as before, with regular reviews. As in previous years, these reviews were conducted at the level of our operational clusters right up to the Executive Committee. Special focus was placed on international development opportunities in the context of reduced mobility due to the Covid crisis. The diversity of profiles was also carefully reviewed, in order to promote the many cultures within the Group at key positions, and to continue to improve the gender balance.

A detailed review of our top international talent took place with the Appointments and Governance Committee in the second half of 2022, in order to prepare for future changes in management.

Specific attention was paid to the review of the technical talent (appointments through the TCL program) as well as to commercial profiles, with the involvement of Mr François Jackow in recognizing the Key Account salespeople at the dedicated international meeting.

In addition, a review was carried out with the Board of Directors of our talent policy and its implementation in current market conditions (tight labor market, new technological challenges, new ways of working), together notably with the developments that are required for the Hydrogen market.

Alongside the work on governance and preparation for the succession to the Company's General Management, close attention was paid to the Executive Committee's work. In June, a dedicated session lasting several days was organized with the support of external partners, in order to define how the Executive Committee will operate under M. François Jackow's leadership. Changes have also been made to the Executive Committee, notably with the appointment of Ronnie Chalmers, Vice President of the Africa, Middle-East and India hub, as well as adjustments to some members' perimeters.

Moreover, in connection with his taking office, in addition to the "handover" sessions, Mr François Jackow organized numerous trips within the Group (in particular to Asia and the Americas) in order to meet the teams directly in the field in as short a timeframe as possible, including notably those teams who did not come under his responsibility in his former roles.

At Mr François Jackow's request, Executive Committee sessions were dedicated to diversity issues during the review of the ESG objectives and, more broadly, to our inclusion policy. Gender equality targets were reviewed, as well as their implementation throughout the Group, and Mr François Jackow expressed his strong commitment concerning the policy for the inclusion of disabled workers, notably at the various events organized during Disability Week.

Individual performance:

The Chief Executive Officer's individual performance is considered remarkable. At the pivotal moment of the succession and his taking up office, in a macroeconomic environment marked by an unprecedented increase in costs, notably energy costs, and an unfavorable geopolitical situation, he demonstrated strong commitment to the Group's success while also expressing his gratitude to the teams. Performance in this regard was assessed at 110%.

In total, the amount of the variable part of the remuneration is above target and amounts to 912,450 euros.

The total amount of the variable remuneration due for the 2022 fiscal year will be paid in 2023, after approval of the financial statements by the General Meeting, it being noted that its payment is conditional on the approval by a General Meeting of the elements of remuneration paid during or awarded in respect of the 2022 fiscal year to Mr François Jackow, as Chief Executive Officer.

There is no deferred annual variable remuneration mechanism, multi-annual variable remuneration mechanism or exceptional remuneration.

	Amounts in respect of the past fiscal year or accounting valuation	Comments
Stock options, performance shares or any other long-term incentive	0 stock option	September 29, 2022 plan (performance shares)
	9,790 performance shares Accounting valuation of the performance shares (according to IFRS 2 norm): € 961,965	<p>Principles of grant for 2022</p> <p>For the Company Officer, the grant for 2022 forms part of the 2022 remuneration policy defined by the Board of Directors on February 15, 2022 and approved by the General Meeting on May 4, 2022.</p> <p>The grant of LTI to Mr François Jackow in his capacity of Chief Executive Officer in 2022 for the period from June 1st to December 31, 2022 represents an IFRS value of 961,965 euros. Moreover, for the record, since 2019, the Board of Directors decided, following the general market trend, to grant only performance shares (instead of a mix of stock options and performance shares) to all the beneficiaries, in order to simplify and standardize the LTI scheme.</p> <p>Limits on the grants to Executive Officers</p> <p>Within the scope of the sub-limits authorized by the General Meeting for 38 months, the Board of Directors sets lower annual limits for the grants to the Executive Officers, expressed (i) as a percentage of the share capital and (ii) as a multiple of their remuneration, in accordance with the recommendations of the AFEP/MEDEF Code.</p> <p>The limits set by the Board of Directors for 2022 are identical to those for 2021 and are as follows (no subscription option having been attributed in 2022):</p> <ul style="list-style-type: none"> ■ the total number of performance shares granted in 2022 to the Executive Officer cannot give rise to a number of shares exceeding 0.012% of the share capital (it being understood that an allocation sub-limit of 0.1% of the share capital for 38 months was set by the General Meeting on May 4, 2022); ■ the total aggregate IFRS value of the performance shares granted to the Executive Officer cannot exceed approximately 1.5 times the amount of the Executive Officer's maximum gross annual remuneration (fixed + variable maximum), it being noted that the performance shares granted represent approximately 40% of the total target annual remuneration. <p>Maintaining the proration principle</p> <p>Pursuant to the decision made by the Board on February 15, 2022 and the policy approved by the General Meeting on May 4, 2022, the 2022 grant of LTI to the Executive Officer remains subject to the principle of a pro-rata calculation.</p> <p>In practice, if the Executive Officer leaves the Group for a reason other than his resignation or removal from office for serious cause, the total allocation rate (after applying the performance conditions) would be reduced pro rata for the duration of actual presence of the Executive Officer within the Group during the period of assessment of the performance criteria. Furthermore, no grant is made to the Executive Officer at the time of this departure, in accordance with the AFEP/MEDEF Code.</p> <p>The Executive Officer will remain subject to all the provisions of the plans and, more specifically, those relating to the duration of the vesting, lock-up and holding periods in respect of the shares and stock options granted.</p> <p>Performance conditions</p> <p>The performance shares awarded are all accompanied by performance conditions calculated over three years. They are calculated:</p> <p>(i) for 50% of the performance shares granted, on the rate of achievement of an objective, set by the Board, consisting of the Return on Capital Employed after tax (ROCE)^(c) recorded at the end of the 2024 fiscal year.</p> <p>At the objective set, the grant is 100% and then decreases on a straight-line basis to a lower limit below which there will be no award. This lower limit corresponds to a ROCE level which is 200 basis points less than the objective set, which provides a degree of flexibility, notably making it possible to take advantage of external growth opportunities.</p> <p>The objective has been set within the trajectory of the ROCE target announced by the Company that is maintained at more than 10%, with achievement set for 2023-2024, which reflects the impact of the crisis but also a proactive investment policy in a context of numerous and qualitative opportunities notably in relation to the energy transition;</p>

Amounts in respect of the past fiscal year or accounting valuation	Comments
	<p>(ii) for 40% of the performance shares granted</p> <ul style="list-style-type: none"> – for 50% of the performance shares referred to in sub-paragraph (ii): on an objective of Total Shareholder Return set by the Board, defined as the average annual growth rate of an investment in Air Liquide shares, dividends reinvested, for the 2022, 2023 and 2024 fiscal years ("AL TSR"). The objective of an absolute TSR is set in accordance with historic performances. At the objective set, the grant is 100% and then decreases on a straight-line basis to a lower limit below which there will be no award, – for 50% of the performance shares referred to in sub-paragraph (ii): on the rate of Total Shareholder Return from an investment in Air Liquide shares, dividends reinvested – source: Bloomberg ("B TSR"), as compared to the CAC 40 TSR index, dividends reinvested (source: Bloomberg) for the 2022, 2023 and 2024 fiscal years. <p>The rate of achievement will be 0%, if the average of the Air Liquide TSR is lower than the average of the CAC 40 TSR, 50% if it is equal to the average of the CAC 40 TSR and 100%, if it is at least higher than 2% of the average of the CAC 40 TSR on the basis of a straight-line change. Any grant for a performance lower than the average of the CAC 40 TSR is impossible;</p> <p>(iii) for 10% of the performance shares granted, on the change in the Group's absolute emissions over the period 2022-2024 in line with objective for a shift in 2025 in accordance with the Climate Objectives announced by the Group on March 23, 2021 (ACT for a sustainable future), as follows :</p> <p>Comparison of the Air Liquide Group's CO₂ Emissions for the year 2024, expressed in millions of tonnes, to those same emissions for the year 2021, the 2021 basis of comparison being adjusted to take account of any possible takeovers of existing units at the Group's customers over the period 2022-2024, on a 12-month pro-forma basis and notably the takeover of the Sasol units in South Africa. The greenhouse gas emissions include direct emissions (Scope 1) and indirect emissions (Scope 2). These emissions are accounted for as "market based".</p> <p>Other conditions/shareholding obligation</p> <p>The shareholding obligation defined pursuant to the French Commercial Code is completed by an internal rule which requires Mr François Jackow to hold a number of shares which is equivalent to twice his annual gross fixed remuneration. The evaluation of the application of this rule for Mr François Jackow will therefore take place as of July 1, 2026.</p> <p>Mr François Jackow has made a commitment not to carry out any hedging transactions during his term of office.</p> <p>Plan Regulations</p> <p>The "France" performance share plan comprises a three-year vesting period, followed by a two-year holding period during which the shares cannot be transferred, as well as a condition of continued presence.</p>
Other elements	N/A No allocation.
Remuneration as a Director	N/A Mr François Jackow does not receive any remuneration in respect of his term of office as Director.
Other benefits	€7,956 Benefits in kind (accounting valuation) include the use of a company car and the contributions paid in 2022 to an external organization for unemployment insurance for company managers and corporate officers calculated pro rata to the performance of the duties of Chief Executive Officer (i.e. for the period from June 1 st to December 31, 2022).
<p>(c) For the purposes hereof, the Return on Capital Employed after tax (ROCE) is calculated as follows: ((recurring net profit after tax before deduction of minority interests – cost of net debt after taxes) for the period 2024)/(weighted average of (shareholders' equity + minority interests + net debt) at the end of the last three half years (H2 2024, H1 2024, H2 2023)).</p>	

	Amounts in respect of the past fiscal year or accounting valuation	Comments												
Termination indemnity	€ 0 received	<p>The main terms of the obligation applicable are as follows: (i) only the case of forced departure linked to a change in strategy or change of control shall give rise to an indemnity; (ii) the amount of the indemnity is set at 24 months of gross fixed and variable remuneration^(d); (iii) it shall be gradually reduced as the age limit provided in the articles of association nears; (iv) entitlement to the indemnity shall be subject to performance conditions: the amount of the indemnity paid depends on the average of the annual gap between the Return on Capital Employed after tax (ROCE) and the Weighted Average Cost of Capital (WACC) (assessed using the book value of equity), over the last three fiscal years prior to the departure. This gap, in a highly capital-intensive business activity, makes it possible to measure the regular creation of value.</p> <p>An average gap of 300 basis points between ROCE and WACC over three years is required to be able to benefit from the total indemnity.</p> <p>The proportion of the indemnity due shall be established as follows, with an increase by straight-line segments between each of the thresholds inclusive:</p> <table border="1"> <thead> <tr> <th>Average of the annual gaps (ROCE – WACC) over three years in bps (a)</th> <th>Proportion of indemnity due</th> </tr> </thead> <tbody> <tr> <td>≥ 300</td> <td>100 %</td> </tr> <tr> <td>250</td> <td>66 %</td> </tr> <tr> <td>200</td> <td>50 %</td> </tr> <tr> <td>100</td> <td>25 %</td> </tr> <tr> <td>< 100</td> <td>0 %</td> </tr> </tbody> </table> <p>(a) bps: basis points.</p> <p>This scheme was authorized by the Board of Directors on February 15, 2022 and approved by the Shareholders' Meeting on May 4, 2022 as part of the compensation policy for the Chief Executive Officer (15th resolution).</p>	Average of the annual gaps (ROCE – WACC) over three years in bps (a)	Proportion of indemnity due	≥ 300	100 %	250	66 %	200	50 %	100	25 %	< 100	0 %
Average of the annual gaps (ROCE – WACC) over three years in bps (a)	Proportion of indemnity due													
≥ 300	100 %													
250	66 %													
200	50 %													
100	25 %													
< 100	0 %													
Indemnity relating to a non-competition commitment	0 € received	<p>The terms of the commitment not to serve, directly or indirectly, a business competing with that of the Group for a period of two years from the termination of the term of office of Mr François Jackow as Chief Executive Officer are as follows:</p> <ul style="list-style-type: none"> ■ The amount of this indemnity, payable monthly, would be equal to one year of gross annual fixed and variable remuneration received by the Chief Executive Officer (excluding sums received in respect of long-term variable remuneration), wherein the aggregated termination indemnity and non-competition indemnity are capped at 24 months of annual gross fixed and variable remuneration paid to the Chief Executive Officer on the date on which he ends his term of office. ■ Payment of the non-competition indemnity shall not apply from the moment the Chief Executive Officer exercises his pension entitlements. In any event, no indemnity shall be paid beyond age 65. ■ The Board of Directors reserves the right to fully or partially waive the non-competition commitment upon the departure of the Chief Executive Officer, in which case no indemnity will be owed. <p>This scheme has been authorized by the Board of Directors on February 15, 2022 and approved by the General Meeting of May 4, 2022 as part of the remuneration policy for the Chief Executive Officer (15th resolution).</p>												

(d) As an exemption to this rule, in the event of departure during the 2022 financial year, the indemnity would have been limited to 12 months' fixed and variable compensation (the sum of the fixed annual compensation for 2022 and the target variable annual compensation for 2022); in the event of departure during the two following fiscal years (2023 or 2024), for the calculation of the 24 months of fixed and variable compensation, the target variable compensation awarded in the absence of variable compensation paid for a fiscal year (for each fiscal year concerned), and the annual fixed compensation for the current and previous fiscal years will be taken into account.

	Amounts in respect of the past fiscal year or accounting valuation	Comments												
Supplementary pension plans	€ 101,137 received (i.e. 50% of the amounts due under this plan – see comments opposite)	<p>Collective pension insurance contract</p> <p>Until May 31, 2022, Mr François Jackow benefited from a supplementary pension plan applicable under certain conditions to the Group's senior executives. As this system is not applicable to Company Officers, Mr François Jackow could no longer benefit from it as of his appointment as a Company Officer.</p> <p>To replace this, from June 1, 2022 until the end of his term of office as Chief Executive Officer, Mr François Jackow benefits from a collective pension insurance contract with individual and optional enrollment (known as "article 82 of the French General Tax Code") for the reference portion of his remuneration [fixed remuneration + target variable remuneration] exceeding eight times the PASS.</p> <p>Implementation of this scheme for the benefit of Mr François Jackow was approved by the General Meeting of May 4, 2022 pursuant to the remuneration policy for the Chief Executive Officer (15th resolution).</p> <p>In this scheme, the amount paid by the Company is split between a payment to the insurer and a payment to Mr François Jackow intended to cover the social security contributions and taxes due on the payments made to the insurer. This amount will be paid in arrears every year for the period until the end of the executive office. These contributions are deductible from the corporate income tax base and are subject to social security contributions.</p> <p>Mr François Jackow cannot apply for the entitlements under this pension insurance contract in the form of capital and/or life annuity before the age at which he becomes entitled to claim his pension entitlements under the French general social security scheme.</p> <p>This supplementary pension plan for the fraction of remuneration exceeding 8 PASS is entirely subject to performance conditions. The total amount of contributions for a fiscal year depends on the average annual gap between the Return on Capital Employed after tax (ROCE) and the Weighted Average Cost of Capital (WACC) (net equity method), calculated (on the basis of the certified Consolidated financial statements, approved by the General Meeting) for the last three fiscal years prior to the said fiscal year. For the purposes of this calculation, the gap between the ROCE and the WACC is measured for each fiscal year and the average of the three annual gaps is calculated for the last three fiscal years prior to the said fiscal year.</p> <p>The performance coefficient applied to the nominal amount pursuant to the collective pension insurance contract is determined as shown in the table below, with a growth of the increase per linear segment between each of the thresholds between 100 bps and 300 bps inclusive:</p> <table border="1"> <thead> <tr> <th>Average of the annual gaps (ROCE – WACC) over three years in bps (a)</th> <th>Performance coefficient applied to the nominal amount</th> </tr> </thead> <tbody> <tr> <td>≥ 300</td> <td>100 %</td> </tr> <tr> <td>250</td> <td>66 %</td> </tr> <tr> <td>200</td> <td>50 %</td> </tr> <tr> <td>100</td> <td>25 %</td> </tr> <tr> <td>< 100</td> <td>0 %</td> </tr> </tbody> </table> <p>(a) bps: basis points.</p> <p>In respect of 2022, the Board of Directors on February 15, 2023 took note of the 100% achievement of the performance conditions.</p> <p>Accordingly, the amount to be paid in 2023 in respect of fiscal year 2022 under the pension scheme with individual and optional subscription, for the period June 1st, 2022 to December 31, 2022, will amount overall to 202,274 euros (split, in accordance with the remuneration policy approved by the General Meeting of May 4, 2022, between a payment of 101,137 (gross) to the insurer in the form of an insurance premium, and a payment of 101,137 euros (gross) to Mr François Jackow intended to cover the social security contributions and similar charges and taxes due on the payments made to the insurer).</p>	Average of the annual gaps (ROCE – WACC) over three years in bps (a)	Performance coefficient applied to the nominal amount	≥ 300	100 %	250	66 %	200	50 %	100	25 %	< 100	0 %
Average of the annual gaps (ROCE – WACC) over three years in bps (a)	Performance coefficient applied to the nominal amount													
≥ 300	100 %													
250	66 %													
200	50 %													
100	25 %													
< 100	0 %													

Amounts in respect of the past fiscal year or accounting valuation		Comments
		<p>Pension commitment pursuant to a defined contribution pension plan (PERO)</p> <p>Until May 31, 2022, Mr François Jackow, in his capacity as an employee, benefited, in addition to the mandatory pension plans, from the supplementary defined contribution pension plan applicable to all employees and Executive Officers.</p> <p>The continued application of this plan to Mr François Jackow, from his appointment as Chief Executive Officer, was authorized by the Board of Directors on February 15, 2022, and approved by the General Meeting as part of the remuneration policy for the Chief Executive Officer (15th resolution).</p> <p>This plan, applicable to all employees and Company Officers, is financed by contributions paid equally by the employer and the beneficiary on the portion of remuneration not exceeding eight times the annual social security ceiling (PASS).</p> <p>The amount of the contributions paid in 2022 (from June 1) under the supplementary defined contribution pension plan for the benefit of Mr François Jackow amounts to 5,693 euros.</p>
		<p>Pension commitment pursuant to a "senior executive" defined contribution pension plan</p> <p>L'Air Liquide S.A. set up a defined-contribution pension plan for senior executives defined by reference to an agreed coefficient and corporate officers who have acquired one year of seniority.</p> <p>Mr François Jackow benefited from this defined contribution pension plan as a senior executive until May 31, 2022. The continued application of this plan to Mr François Jackow, from his appointment as Chief Executive Officer and until the end of his term of office, was authorized by the Board of Directors on February 15, 2022, and approved by the General Meeting as part of the remuneration policy for the Chief Executive Officer (15th resolution).</p> <p>Mr François Jackow's pension entitlements under this defined contribution plan implemented for the benefit of senior executives:</p> <ul style="list-style-type: none"> ■ may be applied for, at the earliest, when he has claimed his pension entitlements under the French general social security scheme; ■ are financed by annual contributions paid in their entirety by the Company. These contributions were set at 2.7% of the portion of remuneration that is lower than eight times the PASS. Furthermore, they are subject to the same tax and social security treatment as those paid under the PERO set up for the benefit of all the staff (see above). <p>The contributions paid by the Company in 2022, for the period from June 1 to December 31, 2022, in favor of Mr François Jackow, amounted to 5,183 euros.</p>
Death and disability benefits and healthcare cost plans	€ 0 received	<p>As an employee, Mr François Jackow benefited until May 31, 2022, from the additional "incapacity, disability, death" benefits plan, unified as from January 1, 2015, covering all personnel and corporate officers who are duly authorized to benefit from such plan. Mr François Jackow also benefited from the healthcare cost plan covering all employees. The continuation of these unified death and disability and healthcare plans for the benefit of Mr François Jackow, from his appointment as Chief Executive Officer, was authorized by the Board of Directors on February 15, 2022, and approved by the General Meeting of May 4, 2022 as part of the remuneration policy for the Chief Executive Officer (15th resolution).</p> <p>Under this plan, (a) the remuneration taken into account for the calculation of contributions is capped at (i) 16 times the annual social security ceiling for incapacity and disability cover, (ii) 24 times the annual social security ceiling for the death benefit; and (b) the employer contribution rate in 2022 amounts to 1.10% up to 16 PASS and 0.89% between 16 and 24 PASS.</p> <p>Contributions paid by the Company for the benefit of Mr François Jackow in 2022, for the period from June 1st to December 31, 2022 amounted to 5,932 euros for the death and disability benefits plan and 231 euros for the healthcare plan (i.e. a total of 6,163 euros).</p>

4.3. ELEMENTS OF THE 2022 REMUNERATION OF THE CHAIRMAN OF THE BOARD OF DIRECTORS (FROM JUNE 1, 2022 TO DECEMBER 31, 2022)

ELEMENTS OF THE TOTAL REMUNERATION AND BENEFITS OF ANY KIND PAID DURING OR AWARDED IN RESPECT OF THE FISCAL YEAR ENDED DECEMBER 31, 2022 TO MR BENOÎT POTIER (FOR THE PERIOD FROM JUNE 1, 2022 TO DECEMBER 31, 2022) AND ON WHICH THE GENERAL MEETING OF MAY 3, 2023 IS INVITED TO VOTE:

	Amounts in respect of the past fiscal year or accounting valuation	Comments
Fixed remuneration	€ 466,667	In accordance with the policy approved by the General Meeting of May 4, 2022 (16 th resolution), the fixed remuneration was determined taking into account the specific role of the Chairman of the Board of Directors in a context of managerial succession and the missions that the Board of Directors wished to entrust Mr Benoît Potier for the duration of the transition in order to benefit from his experience, his in-depth knowledge of the Group and its businesses, its Shareholders and stakeholders and its strategic challenges. As announced, the amount of the 2022 annual fixed remuneration for Mr Benoît Potier amounts to 800,000 euros, calculated on a pro-rata basis for the period from June 1 to December 31, 2022, i.e. a total amount of 466,667 euros .
Annual variable remuneration	N/A	The Chairman does not benefit any annual variable remuneration.
There is no deferred annual variable remuneration mechanism, multi-annual variable remuneration mechanism or exceptional remuneration.		
Stock options, performance shares or any other long-term incentive	N/A	The Chairman does not receive any items of long-term remuneration.
Other elements	N/A	No allocation.
Remuneration as a Director	N/A	Mr Benoît Potier does not receive any remuneration in respect of his term of office as Director.
Other benefits	€ 1,623	Benefits in kind (book value) include the use of a company car.
Termination indemnity	N/A	The Chairman does not receive any termination indemnity.
Non-competition indemnity	N/A	The Chairman does not receive any non-competition indemnity.
Supplementary pension plans	N/A	The Chairman does not benefit from any supplementary pension plan.
Collective life insurance plan	N/A	The Chairman does not benefit from any collective life insurance plan.
Collective death and disability benefits plan (life-insurance)	€ 0 received	The continuation of this insurance plan (life insurance only) for the benefit of Mr Benoît Potier, from his appointment as Chairman of the Board of Directors, was authorized by the Board of Directors on February 15, 2022, and approved by the General Meeting as part of the remuneration policy for the Chairman of the Board (16 th resolution). Under this plan, (a) the remuneration taken into account for the calculation of contributions is capped at 24 times the annual social security ceiling for the death benefit; and (b) the employer contribution rate in 2022 amounts to 1.10% up to 16 PASS and 0.89% between 16 and 24 PASS. The amount of the contribution paid by the Company in 2022, for the period from June 1 to December 31, 2022, in respect of the death and disability benefits plan for Mr Benoît Potier, is 5,932 euros.

5. Remuneration policy applicable to corporate officers

(submitted for the approval of the General Meeting pursuant to article L. 22-10-8 II of the French Commercial Code)

In accordance with article L. 22-10-8 II of the French Commercial Code, the remuneration policy applicable to the corporate officers of L'Air Liquide S.A., as established by the Board of Directors on February 15, 2023 and described in this section, is submitted for approval by the General Meeting on May 3, 2023, in the 15th resolution and 16th resolution for the Company Officers (section 5.1 below) and in the 17th resolution for the Directors (section 5.2 below).

5.1. REMUNERATION POLICY APPLICABLE TO COMPANY OFFICERS

The remuneration policy applicable to Company Officers presented below is part of the governance framework that came into force on June 1, 2022, which separates the functions of Chairman of the Board of Directors and Chief Executive Officer.

The remuneration policy applicable to Company Officers described below and subject to the approval of the General Meeting breaks down as follows:

- the remuneration policy for the Chief Executive Officer (applicable, in 2023, to Mr François Jackow); and
- the remuneration policy for the Chairman of the Board of Directors (applicable, in 2023, to Mr Benoît Potier).

This remuneration policy for Company Officers was established by the Board of Directors on February 15, 2023, on the recommendation of the Remuneration Committee.

During this work, the Company Officers do not attend deliberations by the Remuneration Committee relating to their personal case and do not take part in deliberations or votes by the Board of Directors on the remuneration components that concern them. The decision-making process followed to determine the policy is also applicable when said policy is reviewed and implemented.

To determine the remuneration policy, the Board of Directors takes into account the principles of completeness, balance, comparability, consistency, comprehensibility and proportionality as recommended by the AFEF/MEDEF Code of Corporate Governance.

This policy is in line with that approved by the General Meeting of May 4, 2022.

Both in terms of structure and level, the remuneration policy for Company Officers was therefore established in accordance with Group practices, its new governance context and market practices. It is competitive and aligned with the Group's strategy and medium- and long-term objectives.

5.1.1. Remuneration policy applicable to Executive Officers

A. General principles

In keeping with the Group's practices, the remuneration policy applicable to Executive Officers determined by the Board of Directors includes incentive elements reflecting the Group's strategy, which is steered toward profitable long-term growth by acting on behalf of a sustainable future, with regard to the corporate interest and the interests of all the stakeholders. In a highly capital-intensive industry, profitable long-term growth requires constant attention to be paid to each investment decision and to the competitiveness of every operation, while maintaining an ongoing effort over time in favor, in particular, of safety and security, innovation, employee development, and environmental and societal stakes. It incorporates, both in the short-term variable element and in the long-term incentive elements, criteria aligned with the ADVANCE strategic plan combining financial and extra-financial performance. It is tailored to the Group's specific situation, reflects the level of responsibility of Group executives and remains competitive. In this context, the elements taken into account for the determination of the remuneration of the Executive Officers are as follows:

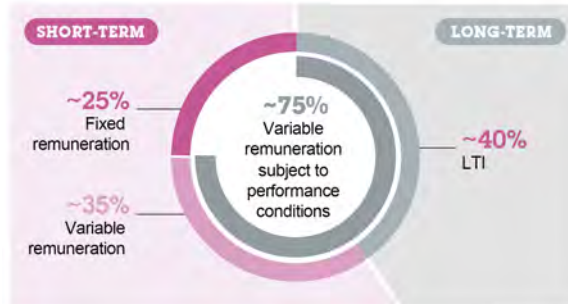
- an annual short-term component, comprising a fixed remuneration and a variable remuneration;
- a long-term incentive (hereafter "LTI") through the grant of performance shares and/or stock options, both subject in full to performance conditions calculated over three years;
- other benefits attached to the performance of the Executive Officer's term of office, specifically including:
 - a supplementary pension scheme,
 - additional social coverage in terms of death and disability benefits and healthcare expenses,
 - benefits in kind (including unemployment insurance for company managers and corporate officers),
 - commitments in the event of termination of duties (indemnity in the event of cessation of functions at the Company's initiative in certain very limited circumstances, subject to performance conditions calculated over three years and, as the case may be, a non-competition indemnity).

There are no employment contracts between the Executive Officer and any of the Group's companies. Thus, just as Mr Benoît Potier resigned from his employment contract in May 2010, Mr François Jackow unilaterally terminated his employment contract by resignation when his term of office as Chief Executive Officer came into effect on June 1, 2022.

Furthermore, if such a situation were to arise, the remuneration applicable to a Senior Executive Vice President would be determined on the basis of the policy applicable to the Chief Executive Officer of the Company, after taking into account, however, of the difference in profile, experience, and level of responsibility, consistent with the earlier practices applied at the Company for this type of Company Officer.

B. Structure and main characteristics common to the general remuneration of Executive Officers

A. The structure and principles applicable to the remuneration are in line with previous years and with the policy approved in 2022.



- The remuneration policy provides for a **proportionate balance between the three components of the total annual remuneration** (i.e. the fixed remuneration, the variable remuneration and the long-term incentives, comprising performance shares and/or stock options).
 - (i) **The fixed remuneration** represents approximately 25%, the variable remuneration approximately 35% and the LTI approximately 40% of the target total annual remuneration. The **elements subject to performance conditions** represent in principle approximately 75% of this total target remuneration. The achievement of each performance condition is assessed without any set-off between criteria.
 - (ii) The **variable remuneration** continues to be expressed as a **target** variable remuneration (as a percentage of the fixed remuneration) with a **maximum**. The total target variable remuneration set now represents approximately 80% of the Chief Executive Officer's total maximum variable remuneration, for a very good performance.
 - The **annual variable remuneration** includes quantifiable and qualitative criteria.
- B. Regarding the **weighting** of criteria chosen, a greater relative weight is given to the quantifiable criteria as compared to the qualitative criteria.

The target weighting and the maximum weighting are made public ex-ante and appear below (paragraph 5.1.2); the actual weight of each criterion for the determination of the variable remuneration due in respect of the fiscal year will be established on the basis of the performance measured for each criterion in light of the target objective, on the basis of the application of a formula for the financial criteria and the assessment of the Executive Officer's performance by the Board of Directors upon the recommendation of the Remuneration Committee for the qualitative criteria.

The **rate of achievement** of the objectives for the variable remuneration, expressed as a percentage of the fixed remuneration and as a percentage of the target variable remuneration allocated to the criterion, will be made public ex-post.

The **quantifiable elements of the annual variable remuneration** include, as in 2022:

- a criterion of an increase in the recurring net earnings (excluding exceptional and significant transactions which do not impact the operating income recurring) excluding currency impact, per share (hereinafter "recurring EPS"), which makes it possible to take into account all the items in the income statement;
- a criterion of comparable growth in consolidated revenue (excluding significant scope impact and the impact of currency and energy), which reflects the momentum of the activity.

The two criteria of the recurring EPS and the revenue reflect the Group's strategy to achieve profitable growth taking into account medium and long-term objectives. The efficiency objective contributes to the increase in the recurring EPS.

Each quantifiable criterion is assigned a target weighting (expressed as a percentage of the fixed remuneration) corresponding to a 100% achievement of the target objective set at the beginning of the year, and a maximum weighting (also expressed as a percentage of the fixed remuneration). For each quantifiable criterion, the Board of Directors has defined an exacting target objective, which is not made public for confidentiality reasons. Nonetheless, the rate of achievement of the objectives for the variable remuneration as a percentage of the fixed remuneration and as a percentage of the target variable remuneration allocated to that criterion is made public ex-post.

For each quantifiable criterion, a formula adopted by the Board of Directors makes it possible to calculate the amount of the variable remuneration due (within a maximum limit) by taking into account, on the basis of the Consolidated financial statements for the fiscal year, the value achieved for the criterion as compared to the target objective set. Thus, in the event of a performance that exceeds the objective set, the value of the variable part is adjusted upward within the maximum limit set for each criterion. In the event of a performance that is below the lower limit set for each objective, the variable remuneration corresponding to this criterion is equal to zero.

The **qualitative elements** of the annual variable remuneration continue to be based, for two-thirds, on several categories or sub-categories of objectives which are defined each year and, for one-third, on an assessment of the individual performance. For 2023, they include the pursuit of long-term objectives related to safety, sustainable development objectives linked to the ESG objectives announced by the Group on March 23, 2021 ("ACT for a sustainable future") and forming an integral part of the ADVANCE strategic program, and organization and Human Resources, thus supporting the Company's sustainability and reflecting its extra-financial performance objectives.

The grant of LTI to the Executive Officers is examined by the Remuneration Committee at the same time as the allocation to Group employees and is decided by the Board of Directors. It is made within the scope of plans, adopted at pre-established periods in autumn, in the form of performance shares and/or share subscription options granted without any discount. It is examined in light of the total amount of the Executive Officer's annual remuneration, taking into account several external market surveys and ensuring that the interests of the Shareholders are respected.

According to the principle that has been adopted since 2016, the award of LTI to the Executive Officer and its evolution over time are assessed in terms of the IFRS value (and not in terms of the volumes granted), for all stock option and performance share plans combined.

Within the scope of the sub-limits authorized by the General Meeting, the Board of Directors sets lower annual limits for the grants to the Executive Officers, expressed (i) as a percentage of the share capital and for each Executive Officer (ii) as a multiple of their remuneration, in accordance with the recommendations of the AFEP/MEDEF Code.

The total aggregate IFRS value of the LTI granted cannot exceed 1.5 times the amount of the Executive Officer's maximum gross annual remuneration (maximum annual fixed + variable), it being noted moreover that, in accordance with the relative proportion of various elements of remuneration referred to above, the grant of LTI represents approximately 40% of the Executive Officer's total annual remuneration.

LTI grants to Executive Officers are subject to the proration principle on the basis of the actual presence of the Executive Officer: in the event of a departure from the Group of the Executive Officer for a reason other than resignation or removal from office for serious cause⁽¹⁾, the total allocation rate (after applying the performance conditions) would be reduced pro rata for the duration of actual presence of the Executive Officer within the Group during the period of assessment of the performance criteria.

In addition, no grant of LTI will be made to the Executive Officer at the time of his departure, in accordance with the AFEP/MEDEF Code.

Company Officers are also subject to the following **specific obligations**:

- **Obligation to retain shares** defined by the Board of Directors pursuant to articles L. 225-185 and L. 225-197-1 of the French Commercial Code. They lead to the obligation, for the Company Officer, to hold, in registered form, until the termination of his duties, a minimum quantity of shares corresponding to 50% of the capital gain on acquisition, net of social security charges and tax, resulting from each exercise of stock options/each definitive award of performance shares. However, this percentage will be lowered to 5%, as soon as the quantity of shares held by the Company Officer resulting from the exercise of stock options or the definitive award of performance shares represents a minimum amount equal to at least three times the Company Officer's gross annual fixed remuneration. Compliance with this obligation is verified annually by the Board of Directors.
- **Additional shareholding obligation** defined by the Board in accordance with the AFEP/MEDEF Code: each Company Officer must also hold in a registered account a minimum number of shares based on his or her gross annual fixed remuneration (equivalent to twice his or her gross annual fixed remuneration for the Chief Executive Officer and the Chairman of the Board of Directors and once his or her gross annual fixed remuneration for a Senior Executive Vice President). The number of shares required to be held is assessed as of January 1 and July 1 of each year. Newly appointed Company Officers must comply within four years of their first appointment.
- Lastly, the Company Officers are subject to the requirement restricting the exercise of stock options and the sale of performance shares during the **"black-out periods"** prior to the publication of the financial statements and the commitment not to use risk hedging transactions on options/shares resulting from the exercise of options and on performance shares granted, throughout their term of office.

As with all beneficiaries, **all the LTI granted to the Executive Officers are subject to demanding performance conditions** calculated over a period of three years. The performance conditions, which apply to the plans decided upon in autumn, are set by the Board of Directors at the start of the year, at the February meeting, in order to comply with a reference period of three full years.

For each performance condition, a formula adopted by the Board makes it possible to determine, following the end of the three fiscal years during which the performance has to be achieved, the percentage of performance shares definitively awarded/stock options that can be exercised.

The demanding objectives set for each performance condition are made public ex-post, at the end of the Board meeting in the month of February following the end of the three fiscal years during which the performance has to be achieved. The rate of achievement of the performance conditions and the percentage of LTI definitively awarded/that can be exercised are also published at the end of this Board meeting.

For the beneficiaries of the "France" performance share plan, including Executive Officers, the vesting period is three years from the Board meeting which decided upon their grant. This period, at the end of which the performance shares are definitively awarded, is followed by a two-year holding period. The stock options are in principle subject to a four-year lock-up period, followed by a six-year exercise period. Added to this is a condition of presence which stipulates the loss of the stock options/rights to the performance shares in the process of being acquired, in the event of resignation or removal from office for serious cause.

On the recommendation of the Remuneration Committee, the Board has retained for 2023, for all LTI beneficiaries (Executive Officers and employees) the ROCE, Total Shareholder Return (AL TSR and relative TSR) and an objective related to the evolution of the Group's carbon emissions.

- The ROCE, which makes it possible to measure the Return on Capital Employed, is relevant in a highly capital-intensive industry.
- The Total Shareholder Return (TSR) in turn makes it possible to align the Company's performance with the regular profits expected by its Shareholders.
- Moreover, consistent with the Group's responsible growth approach, the LTI plans incorporate since 2020 a performance condition linked to the Group's Climate Objectives.

⁽¹⁾ Situations which will result in the loss of the LTI.

In total, all the performance criteria for the variable remuneration and LTI, both financial (growth in recurring EPS and comparable revenue, ROCE, shareholder return – TSR) and extra-financial (CSR and HR objectives for the qualitative portion of variable remuneration, and LTI criterion aligned with the Group's climate objectives), reflect the Group's overall performance objectives as announced in its ADVANCE strategic plan aimed at achieving a solid financial performance while developing an ambitious decarbonization plan and taking into account the interests of all its stakeholders.

The selection of the components for the remuneration of the Executive Officers by the Board of Directors on the recommendation of the Remuneration Committee, described above, is made by **taking into account the conditions of remuneration and employment of the Company's employees**. Accordingly, the quantifiable and qualitative components of the variable remuneration for the Company's Executive Officer and senior executives are identical. These objectives are also reflected in those for the Company's employees who have a short-term variable remuneration. Moreover, the LTI performance conditions are identical for all the employee beneficiaries (approximately 2,000 Group employees in 2020 and 2021, approximately 2,600 Group employees in 2022) and for the Executive Officers. These alignments provide for greater coherence of efforts in achieving the Company's performance objectives. The importance given to the safety objectives helps implement a high-quality working environment for the employees that has a direct impact on their engagement and performance. The variable remuneration also incorporates objectives of talent development, the achievement of which requires in particular the implementation of varied, relevant programs for the training and development of employees throughout their career, the implementation of new ways of working within the entire Group, and an objective relating to the implementation of the Group's diversity policy and, more generally, the promotion of a culture of inclusion.

Executive Officers also benefit from long-term commitments and commitments related to the termination of their duties described below, as well as other elements of annual remuneration (benefits in kind, supplementary social protection schemes) which may be terminated under ordinary law conditions.

5.1.2. Implementation for the determination of the Chief Executive Officer's remuneration for 2023

The elements which make up the total remuneration of the Chief Executive Officer subject to the approval of the General Meeting of May 3, 2023, are described below.

In accordance with the principles of the remuneration policy for Executive Officers set out above, the Board of Directors, at its meeting of February 15, 2023, on the recommendation of the Remuneration Committee, defined the criteria for determining, distributing and allocating the elements comprising the total remuneration of the Chief Executive Officer in line with the remuneration policy applicable to Mr François Jackow in his capacity as Chief Executive Officer as approved by the General Meeting of May 4, 2022. These are described below.

It is reminded that the positioning of the Chief Executive Officer's remuneration was drafted based on an in-depth study of industry practices, including a benchmark of remunerations at CAC 40 groups with a separated governance mode, with the assistance of an outside firm based on publicly available data. At its meeting of February 15, 2023, on the recommendation of the Remuneration Committee, the Board decided to maintain for 2023 the level of remuneration of the Chief Executive Officer at the same level as for 2022, the defined remuneration presenting necessary characteristics of competitiveness and comparability.

This remuneration is attractive and takes into account Mr François Jackow's experience and skills, and his successful career within the Group that he joined in 1993. His remuneration components, including long-term commitments, also take into account the fact that Mr François Jackow decided to unilaterally terminate his employment contract as of the start of his corporate mandate in June 2022, in accordance with the recommendations of the AFEP/MEDEF Code and best governance practices. It also takes into account the fact that Mr François Jackow will not receive any remuneration for his office as Director.

The remuneration policy for the Chief Executive Officer for the 2023 fiscal year is thus in line with the policy approved by the General Meeting of May 4, 2022, subject to a minor change concerning the methods for determining ROCE applicable to the performance condition of the Chief Executive Officer's supplementary pension plan, decided by the Board of Directors on February 15, 2023, on the recommendation of the Remuneration Committee. This change is detailed below (See paragraph E. below).

A. Fixed remuneration

The fixed remuneration is determined on the basis of the level of responsibility, the experience in the executive management duties and market practices.

The annual fixed remuneration recommended for Mr François Jackow in 2023 is unchanged from 2022 and, in application of the aforementioned principles, is an annual amount of 1,100,000 euros.

B. Variable remuneration

Pursuant to the principles set forth above ("Structure and main characteristics common to the general remuneration of Executive Officers"), the Board of Directors of February 15, 2023, on the recommendation of the Remuneration Committee, defined the elements of the variable remuneration of the Chief Executive Officer for 2023 as follows:

- **the quantifiable elements of the annual variable remuneration** include a criterion relating to the increase in the recurring net earnings (excluding exceptional and significant transactions which do not impact the operating income recurring) excluding currency impact, per share (hereinafter "recurring EPS") and a criterion relating to comparable growth in consolidated revenue (excluding significant scope impact and the impact of currency and energy). The weighting of each criterion is shown in the table below;
- **the qualitative criteria of the annual variable remuneration** were defined in keeping with the continuity of qualitative objectives of the Executive Officer during the prior fiscal year. They are detailed in the table below and relate:
 - for one-third, to CSR: Safety and reliability ; ESG objectives published by the Group on the Sustainable Development Day of March 23, 2021 (hereinafter "ESG") and forming an integral part of the ADVANCE strategic program (press release on March 22, 2022 and available on the Company's website: <https://www.airliquide.com/fr/groupe/communiqués-presse-actualités/22-03-2022/air-liquide-presente-avance-son-nouveau-plan-strategique-horizon-2025-combinant-performance>),
 - for one-third, to organization and to Human Resources,

- for one-third, to individual performance. This criterion responds to the Board of Directors' desire to keep a part of the variable remuneration subject to the Board's assessment, in order to take account of the unpredictability of the environment. This may be beneficial to the Executive Officer, if the Company is facing an unfavorable environment which was not anticipated at the time the objectives were set, or disadvantageous if the environment ultimately turns out to be more favorable than anticipated.

A target weight and a maximum weight are set for each criterion.

The allocation key for the quantifiable/qualitative criteria appears in the table below. Within each category, the target and the maximum weights for each element have been rounded and reconciled with market practices as compared to the prior practice and specifically the policy applicable to the Chairman and Chief Executive Officer, the target having been set at 120% of the fixed remuneration and the maximum of 150% of the fixed remuneration, as detailed below:

Indicator	Target ^(a)		Maximum	
	As a % of the fixed remuneration	As a % based on a 100	As a % of the fixed remuneration	As a % based on a 100
Quantifiable financial criteria including:	84	70	105	70
Increase in recurring net earnings ^(b) excluding the foreign exchange impact per share (recurring EPS)	60	50	75	50
Comparable growth in consolidated revenue ^(c)	24	20	30	20
Qualitative personal criteria including:	36	30	45	30
CSR:				
■ Safety and reliability: continue efforts to improve safety (lost time accident frequency rate, road traffic accidents and job-related accidents)				
■ Roll-out of the action plans relating to the Group's new sustainable development objectives; Progress made concerning the various key indicators ^(d) and harmonization with the 2025 trajectory for these new objectives	12	10	15	10
Organization/Human Resources (talents development, management succession plans, diversity policy)	12	10	15	10
Individual performance: assessment by the Board of Directors, notably in light of the external environment for the year	12	10	15	10
TOTAL (FINANCIAL AND PERSONAL CRITERIA)	120 ^(e)	100	150	100

(a) The target corresponds to 100% achievement of the performance criterion.

(b) Excluding significant and exceptional transactions that do not impact the operating income recurring. The calculation is based on the 2023 recurring net profit (Group share) excluding the foreign exchange impact (compared to 2022).

(c) Excluding significant scope impact, foreign exchange impact and energy.

(d) Key indicators including those required to measure CO₂ emissions for the year are disclosed in the Extra-financial Performance Statement (see chapter 5 of this Universal Registration Document).

(e) This represents variable remuneration of approximately 1,320,000 euros at target for Mr François Jackow (on a full-year basis).

The fixed remuneration represents approximately 27% and the variable remuneration 32% of the total target remuneration (including LTI), and the target variable remuneration represents 80% of the maximum variable remuneration, pursuant to the principles set forth above.

The total amount of the variable remuneration due for the 2023 fiscal year will be paid in 2024, after approval of the financial statements by the General Meeting, it being noted that its payment is conditional on approval by a General Meeting of the elements of the Executive Officer's remuneration, under the conditions provided for in article L. 22-10-34 II of the French Commercial Code.

C. Other elements of annual remuneration

The benefits in kind include the use of a company car as well as contributions to the unemployment insurance for company managers and corporate officers. The Board of Directors decided that Mr François Jackow would, as a corporate officer and given the fact that he ended his employment contract as from his appointment as Chief Executive Officer on June 1, 2022, benefit from the unemployment insurance for company managers and corporate officers taken out by the Company. The contributions paid by the Company are included in Mr François Jackow's remuneration as benefits in kind. By way of information, these benefits amount to around 18,635 euros on an annual basis, around 13,000 euros of which is for the unemployment insurance for company managers and corporate officers.

Death and disability benefits and healthcare cost plan

The Board of Directors has decided to continue to provide Mr François Jackow with the following benefits, from his appointment as Chief Executive Officer and until the end of his term of office:

- the additional "incapacity, disability, death" benefits plan, unified as from January 1, 2015, covering all the personnel and the corporate officers duly authorized to benefit from such plan in which the remuneration taken into account for the calculation of the contributions is capped at (i) 16 times the annual social security ceiling for the incapacity and disability cover, (ii) 24 times the annual social security ceiling for the death cover;
- the healthcare cost plan covering all employees.

The estimates for the 2023 fiscal year are as follows:

- employer's contribution to Healthcare Costs: 396 euros;
- employer's contribution to Death and Disability benefits: 10,169 euros.

D. Long-term remuneration components

At its meeting of February 15, 2023, on the recommendation of the Remuneration Committee, the Board of Directors provided for the allocation of performance shares to Mr François Jackow, in respect of his office as Chief Executive Officer, for the 2023 fiscal year, in an annual amount of 1,650,000 euros (based on an IFRS valuation), as in 2022.

Pursuant to the principles of the remuneration policy applicable to Executive Officers, the LTIs represent around 41% of the total target remuneration (fixed remuneration, target variable remuneration and LTI), and the **remuneration elements subject to performance conditions (variable remuneration + LTI) represent approximately three quarters of the total target remuneration.**

The performance conditions which apply to the Chief Executive Officer (and to all the beneficiaries of the LTI Plans which will be allocated in 2023) were determined by the Board of Directors on February 15, 2023. The number of LTI that will be definitively awarded/can be exercised pursuant to the 2023 Plans will depend:

(i) for 50% of the LTI granted, on the rate of achievement of an objective, set by the Board, consisting of the recurring ROCE recorded at the end of the 2025 fiscal year.

At the objective set, the grant is 100% and then decreases on a straight-line basis to a **lower limit** below which there will be no award. This **lower limit** corresponds to a ROCE level which is **200 basis points less** than the objective set, which provides a degree of flexibility, notably making it possible to take advantage of external growth opportunities.

The objective was set in line with the ROCE objective announced by the Company, i.e. a level maintained at more than 10% at the end of 2025;

(ii) for 40% of the LTI granted:

- for 50% of the LTI referred to in sub-paragraph (ii): on an objective of Total Shareholder Return set by the Board, defined as the average annual growth rate from an investment in Air Liquide shares, dividends reinvested, for the 2023, 2024 and 2025 fiscal years ("**AL TSR**"). The objective of an absolute TSR is set in accordance with historic performances. At the objective set, the grant is 100% and then decreases on a straight-line basis to a lower limit below which there will be no award;
- for 50% of the LTI referred to in sub-paragraph (ii): on the rate of Total Shareholder Return from an investment in Air Liquide shares, dividends reinvested – source: Bloomberg ("**B TSR**"), as compared to the **CAC 40 TSR** index, dividends reinvested (source: Bloomberg) for the 2023, 2024 and 2025 fiscal years. The rate of achievement will be 0%, if the average of the Air Liquide TSR is lower than the average of the CAC 40 TSR, 50% if it is equal to the average of the CAC 40 TSR and 100%, if it is at least higher than 2% of the average of the CAC 40 TSR on the basis of a straight-line change. Any grant for a performance lower than the average of the CAC 40 TSR is impossible;

(iii) for 10% of the LTI granted: change in the Group's absolute CO₂ emissions over the period 2023-2025 in line with the objective for a decline in 2025 in accordance with the Climate Objectives announced by the Group on March 23, 2021 (ACT for a sustainable future), as follows:

Comparison of the Air Liquide Group's CO₂ emissions for the year 2025, expressed in millions of tonnes, to those same emissions for the year 2022, the 2022 basis of comparison being adjusted to take account of any possible perimeter impacts (possible takeovers of existing units at the Group's customers or companies, asset or company disposals) over the period 2023-2025, on a 12-month pro-forma basis, in line with the method used to monitor the Group's carbon trajectory as communicated.

For the purposes hereof, the greenhouse gas emissions include direct emissions (Scope 1) and indirect emissions (Scope 2). These emissions are accounted for as "market based"⁽²⁾.

The rate of achievement of the performance conditions will be recorded in 2026 by the Board at the time when the financial statements are approved for the 2025 fiscal year.

All of the rules and conditions applying to LTI grants to the Executive Officers described above (limits on volume and value, condition of presence, proration, shareholding and share ownership⁽³⁾ and other specific regulations) apply to the allocation of performance shares in 2023 to Mr François Jackow in his capacity as Chief Executive Officer.

E. Long-term commitments

The Board of Directors on February 15, 2023, on the recommendation of the Remuneration Committee, defined the elements of the pension schemes from which Mr François Jackow will benefit for the duration of his term of office as Chief Executive Officer, in line with the remuneration policy approved in 2022. These elements, including, in particular, a supplementary pension plan, were defined by taking into account the results of a detailed benchmark formed from a panel of CAC 40 companies and European companies with separated governance, the plan currently applicable to the Group's senior executives, the overall balance of the remuneration of the Chief Executive Officer, and an effort to outline a plan ensuring competitive coverage at the best cost for the Company.

All of these elements are, as with other remuneration elements, subject to the approval of the General Meeting voting on the remuneration policy applicable to the Chief Executive Officer.

The overall amount of the Company's contributions to the supplementary pension plans detailed below represents approximately 14.9% of the target annual Reference Remuneration (fixed remuneration + target variable remuneration), a value close to the benchmark averages.

⁽²⁾ See definition of Scopes in paragraph 2.1.1 of the Extra-financial Performance Declaration – page 354, and scope calculation methodology in paragraph 2.2.4 of the Annual reporting section of Chapter 5 – pages 426 and 427.

⁽³⁾ The additional shareholding obligation will apply to Mr François Jackow within four years of his appointment, i.e. on June 1, 2026.

Mandatory company retirement savings plan (PERO)

The Board of Directors, on the recommendation of the Remuneration Committee, decided that Mr François Jackow would continue to benefit from the PERO ⁽⁴⁾ (from which he had previously benefited as an employee), until the end of his term of office.

This plan is financed by monthly contributions based on remuneration not exceeding eight PASS and equally distributed between the employer and the beneficiary. They are deductible from the corporate income tax, are subject to the social levy at the rate of 16%, and are excluded from the basis for assessment of the social security contributions, within the limit of the higher of the following two values: 5% of the PASS or 5% of the remuneration taken into account within the limit of five times the PASS.

The amount of the employer's contribution to this plan, for the 2023 fiscal year, is estimated at 10,437 euros.

"Senior managers" defined contribution pension plan

The Board of Directors, on the recommendation of the Remuneration Committee, decided that Mr François Jackow would continue to benefit from the "article 83" defined contribution pension plan, set up for the benefit of senior executives for the portion of his remuneration between 0 and 8 times the PASS until the end of his term of office.

This plan is financed by annual contributions paid in their entirety by the company on the remuneration fraction below eight PASS and are subject to the same tax and social security treatment as those paid under the PERO.

The amount of the employer's contribution to this plan for the 2023 fiscal year is estimated at 9,502 euros.

Collective pension insurance contract with individual and optional subscription

Before his appointment as Executive Officer, Mr François Jackow benefited, in addition to the PERO and the defined contribution pension plan for the aforementioned senior executives, from a supplementary pension scheme applicable under certain conditions to the Group's senior executives. As this scheme is not applicable to Company Officers, Mr François Jackow no longer benefits from it since his appointment as Chief Executive Officer on June 1, 2022.

In order to replace the pension plan from which he benefited previously and to enable Mr François Jackow to benefit from a supplementary pension plan in his capacity as Company Officer, the Board of Directors having decided that, from his appointment as Chief Executive Officer and until the end of his term of office, Mr François Jackow would benefit from a collective pension insurance contract with individual and optional subscription (known as "article 82 of the French General Tax Code") for the fraction of his Reference Remuneration [Fixed remuneration + Target variable remuneration] exceeding 8 PASS. The amount paid by the Company is split between a payment to the insurer and a payment to Mr François Jackow intended to partially cover the social security contributions and taxes due on the payments made to the insurer. This amount is paid in arrears every year for the period until the end of the executive office, after recording the performance conditions associated with this pension plan.

Mr François Jackow cannot apply for the entitlements under this pension insurance contract before the age at which he becomes entitled to claim his pension entitlements under the French general social security scheme.

Application of this mechanism to the Chief Executive Officer was determined taking into account the overall balance of his remuneration and the market conditions, and for the Company represents, for the same efficiency for the beneficiary, a 31% lower cost to the Company than that which would result from implementing a new supplementary pension plan with defined vested benefits under article L. 137-11-2 of the French Social Security Code.

This supplementary pension plan for the fraction of remuneration exceeding 8 PASS is entirely subject to performance conditions. The gross annual amount of payments totals approximately 345,000 euros, subject to the achievement of the performance conditions described below.

Thus, the total amount of contributions for a fiscal year will depend on the average annual gap between the Return on Capital Employed after tax (ROCE), determined as set out below, and the Weighted Average Cost of Capital (WACC) (net equity method), calculated (on the basis of the certified Consolidated financial statements, approved by the General Meeting) for the last three fiscal years prior to the said fiscal year. For the purposes of this calculation, the gap between the ROCE and the WACC will be measured for each fiscal year and the average of the three annual gaps will be calculated for the last three fiscal years prior to the said fiscal year.

In order not to penalize the calculation in the event of a major transaction, the Board of Directors, at its meeting of February 15, 2023, on the recommendation of the Remuneration Committee, decided that the ROCE used would be the recurring ROCE "excluding major acquisitions". Acquisitions representing more than 5% of capital employed are considered to be major for the purposes of this definition. It is specified that only two to three acquisitions have exceeded this level during the last 30 years. This change is applicable subject to a favorable vote on this remuneration policy by the General Meeting. The performance coefficient applied to the nominal amount pursuant to the collective pension insurance contract will be determined as shown in the table below, with a growth of the increase per linear segments between each of the thresholds between 100 bps and 300 bps inclusive:

Average of the annual gaps (ROCE – WACC) over three years in bps ^(a)	Proportion of indemnity due
≥ 300	100%
250	66%
200	50%
100	25%
< 100	0%

(a) bps: basis points.

The amount of the 2024 payments in respect of 2023 is estimated at approximately 345,000 euros, subject to performance conditions.

⁽⁴⁾ Mandatory company retirement savings plan (PERO) set up on January 1, 2021, which succeeded the supplementary defined contribution pension plan applicable to all employees and Company Officers on that date.

F. Commitments relating to termination of duties

Termination indemnities

The Board of Directors, on the recommendation of the Remuneration Committee, decided that Mr François Jackow (who unilaterally ended his employment contract as of his appointment as Chief Executive Officer with effect from June 1, 2022) would continue to benefit from a termination indemnity, subject to very strict triggering conditions. The main terms are as follows:

- only the cases of forced departure of Mr François Jackow from his term of office as Chief Executive Officer (removal from office, request for resignation) related to a change of strategy or a change in control (in the latter case, the termination indemnity is due, if the departure occurs within six months of the change of control) may give rise to an indemnity;
- the amount of the indemnity in any of these cases is set at the 24 previous months of annual gross fixed and variable remuneration actually paid (24 months of fixed remuneration + 2 previous annual variable remunerations actually paid) on the date of termination of his duties (subject to the exceptions described below and in the paragraph relating to the non-competition commitment). As an exception to this rule, in the event of departure during the course of the 2023 or 2024 fiscal years, for the calculation of the indemnity of 24 months of fixed and variable remuneration, the following will be taken into account: for the variable remuneration, the target variable remuneration awarded in the absence of variable remuneration paid in respect of a fiscal year (for each fiscal year concerned); and the annual fixed remuneration of the ongoing fiscal year and that of the previous fiscal year;
- the amount of the indemnity due decreases gradually as Mr François Jackow, in his capacity as Chief Executive Officer, approaches the age limit defined in the Company's articles of association; in the event of a forced departure in the 24 months preceding the date of departure due to the age limit set by the articles of association, the amount of the indemnity due will be capped at the number of months' gross remuneration separating the date of forced departure from the date when he reaches such age limit; in any event, no indemnity shall be paid should the beneficiary claim his pension entitlements on the date of his forced departure;
- the right to payment of the indemnity is subject to the achievement of the performance conditions, the proportion of the indemnity due decreasing depending on the rate of achievement of such conditions (see below for details of the performance conditions).

Performance conditions applicable to the termination indemnity

The Board of Directors decided that the payment of the termination indemnity concerning Mr François Jackow is subject to compliance, duly acknowledged by the Board of Directors at the time of or subsequent to the termination of his duties, with conditions related to the beneficiary's performance assessed in light of the Company's performance (unchanged compared to the conditions included in the policy approved in May 2022), defined as of today as follows:

Entitlement to the indemnity referred to above shall depend on, and the amount of the indemnity paid will be adjusted on the basis of, the average of the annual gap between the Return on Capital Employed after tax (ROCE) and the Weighted Average Cost of Capital (WACC) (assessed using the net equity method), calculated (on the basis of the certified Consolidated financial statements, approved by the General Meeting) with respect to the last three fiscal years prior to the fiscal year during which the departure occurs. For the purposes of this calculation, the gap between the ROCE and the WACC will be measured with regard to each fiscal year, and the average of the three annual gaps for the last three fiscal years prior to the fiscal year during which such departure takes place will be calculated.

The proportion of the indemnity due will be established as indicated in the table below, with an increase in the indemnity by straight-line segments between each of the thresholds between 100 bps and 300 bps inclusive:

Average of the annual gaps (ROCE – WACC) over three years in bps ^(a)	Proportion of indemnity due
≥ 300	100%
250	66%
200	50%
100	25%
< 100	0%

(a) bps: basis points.

Indemnity relating to a non-competition commitment

To safeguard the legitimate interests of the Company, the Board of Directors decided to grant a non-competition indemnity in consideration of the commitment that would be made by the Chief Executive Officer not to directly or indirectly serve a business competing with that of the Group, for a term of two years as from the date on which he ends his term of office.

The amount of this indemnity, payable monthly, would be equal to one year of gross annual fixed and variable remuneration received by the Chief Executive Officer (excluding sums received in respect of long-term variable remuneration), **wherein the aggregated termination indemnity and non-competition indemnity are capped at 24 months of annual gross fixed and variable remuneration** paid to the Chief Executive Officer on the date on which he ends his term of office.

Payment of the non-competition indemnity shall not apply from the moment the Chief Executive Officer exercises his pension entitlements. In any event, no indemnity shall be paid beyond age 65.

The Board of Directors reserves the right to fully or partially waive the non-competition commitment upon the departure of the Chief Executive Officer, in which case no indemnity will be owed.

5.1.3. Remuneration policy applicable to the Chairman of the Board of Directors

A. Remuneration principles and structure

This remuneration policy for the Chairman of the Board of Directors is unchanged from that approved by the General Meeting on May 4, 2022.

Thus, in accordance with the recommendation of the AFEP/MEDEF Code (article 26.2), the Chairman is only awarded fixed remuneration, to the exclusion of any variable remuneration, LTI or exceptional remuneration.

Depending on the circumstances, the Chairman may receive remuneration as a Director (section 5.2 "Remuneration policy applicable to Directors"). Nevertheless, in the case of Mr Benoît Potier, it has been decided that he will not receive any remuneration as a Director.

The Chairman of the Board of Directors has all of the material means to fulfill his mission.

Depending on the circumstances, the Chairman may be authorized to benefit from the death and disability benefits plan covering all personnel in addition to corporate officers authorized to benefit therefrom.

B. 2023 Remuneration of the Chairman of the Board

In accordance with the principles set out above, the Board of Directors' meeting of February 15, 2023, on the recommendation of the Remuneration Committee, defined the components of remuneration applicable to Mr Benoît Potier, unchanged from those defined in 2022.

The positioning of the remuneration had been drafted based on an in-depth study of industry practices, including a benchmark of remunerations of board chairs at a representative panel of companies with a separated governance mode within the CAC 40, and European companies⁽⁵⁾, with the assistance of an outside firm. It takes into account the specific role of the Chairman of the Board in the particular context of managerial succession and the missions that the Board of Directors wished to entrust to Mr Benoît Potier for the duration of the transition in order to benefit from his experience, in-depth knowledge of the Group and its businesses, its Shareholders and stakeholders and its strategic challenges – see chapter 3, section 2.1.2, paragraph "Duties of the Chairman of the Board of Directors".

In this context, the amount of the annual fixed remuneration of Mr Benoît Potier has been set at 800,000 euros, excluding any variable and long-term remuneration (notably LTI) and any exceptional remuneration. Mr Benoît Potier will not receive any additional remuneration in his capacity as a Director.

Furthermore, Mr Benoît Potier will benefit from the use of a company car, representing benefits in kind which amount to around 2,782 euros per year.

In line with 2022, Mr Benoît Potier continues to benefit from the death and disability benefits plans (death insurance only) covering all employees as well as corporate officers duly authorized to benefit from them.

The amount of the 2023 contribution to this plan is estimated at 10,169 euros.

5.2. REMUNERATION POLICY APPLICABLE TO DIRECTORS

The remuneration policy applicable to Directors was determined by the Board of Directors on February 15, 2023 on the basis of a recommendation from the Remuneration Committee. The decision-making process followed to determine the policy is also applicable when said policy is reviewed and implemented.

The remuneration policy applicable to Directors is submitted to the vote of the General Meeting, in line with its principles and structure, in accordance with the policy decided by the Board of Directors in February 2022 and approved by the General Meeting of May 4, 2022.

The remuneration policy for the Directors aims to determine, pursuant to the total package voted by the Ordinary General Meeting (to date, a maximum annual pay package of 1.3 million euros, in accordance with the 12th resolution voted by the Combined General Meeting on May 5, 2020), a remuneration which is competitive internationally to attract the best skills and expertise, in compliance with the Board's diversity policy.

First of all, it provides for fixed remuneration (prorated if the term of office commences or comes to an end during the course of the year) allocated to the Directors. This remuneration is increased for the Lead Director, and an additional fixed remuneration is allocated to the Chairs of the four Board Committees, to take account of the level of responsibilities incurred and the work involved as a result of these duties.

It also includes a variable remuneration, which is the highest part, on the basis of each Director's attendance at the meetings of the Board and the Committees/working group, in accordance with the AFEP/MEDEF Code, in the form of the allocation of a fixed amount for each attendance at a meeting.

Pursuant to the policy approved by the General Meeting of May 4, 2022, (i) the fixed remuneration allocated to Committee Chairs is harmonized, as their functions involve significantly comparable responsibilities, likewise the amount of the remuneration allocated for attending each Committee meeting and (ii) remote attendance of meetings is remunerated in the same way as attending in person in order to take into account the quality of means of communication allowing members connecting via video-conference to attend meetings and take part in discussions under conditions that are equivalent to them being physically present at meetings. While it does not alter the preference of the Board and its members to attend meetings in person where possible, it recognizes the advances in communication technologies.

⁽⁵⁾ A European panel comprising 14 groups with 8 different nationalities, in the Chemical, Petrochemical, Healthcare, Engineering and Manufacturing industries, with revenue of between 7 and 150 billion euros (an average of 44 billion euros and a median of 22 billion euros).

In order to take account of the distance for Directors coming from abroad, a fixed amount per trip is added to the variable remuneration for such Directors if attending in person (the remuneration for intercontinental travel being higher than that provided for intracontinental travel; it may be readjusted to remain competitive at the international level). The Board of Directors of February 2023, decided to readjust on recommendation of the Remuneration Committee this amount related to intercontinental travel has been readjusted in 2023 to take into account market trends and maintain the competitiveness of the remuneration of foreign Directors. Travel expenses are refunded by the Company.

This policy promotes attendance and effective participation by the Directors in the work of the Board and Committees, which fosters dialogue between the Directors and with the management team, and, more generally, a complete understanding by the members of the Company's activities and issues, including any social and environmental issues, which ensures solid governance for the Company's sustainability.

The recognition of the role of the Lead Director, who receives additional remuneration in this regard, reflects the importance accorded by the Group to his governance tasks, in connection with the meetings of the Board and the Appointments and Governance Committee, and in an informal manner between such meetings, thus promoting best governance practices. For this reason, the Company has decided, as indicated in the section "Governance - composition, functioning and work of the Board of Directors and Committees" (paragraph 3), to maintain the function of the Lead Director the same under a separated governance mode. The consideration, in the remuneration policy, of the work of the four specialist Committees is evidence of the importance accorded to the preparation of the principal Board decisions, whether in terms of the proper running of the governing bodies, the review of the financial statements and the financial situation, the risk analysis, the consideration of the societal and environmental issues across all the Group's activities or indeed the determination of an incentivizing remuneration policy for the Executive Officers, including objectives in line with those of the Company.

Accordingly, the remuneration policy, which is balanced and incentivizing, contributes to the quality of the Board's work, the latter being thus able to determine the orientations of the Company's activity and its strategy in the best interests of the Company, its employees and all the stakeholders.

It is stated that the Company Officers do not receive remuneration in respect of their office as Director or as Chair of a Committee/working group while they perform executive duties at L'Air Liquide S.A. Moreover, pursuant to the provisions in force at the Group which apply to all the employees who perform duties on the Group companies' Boards of Directors, and in agreement with the various stakeholders, the employee Directors do not receive remuneration in respect of their office as Director. Travel expenses are refunded by the Company.

DESCRIPTION OF THE STOCK OPTION AND PERFORMANCE SHARE PLANS

1. Attribution policy

The Company attributes annually, in principle, performance shares and/or stock options (hereinafter referred to as "LTI") in favor of its Executive Officers and its employees. Performance share plans for its employees have been in place since 2008, and have been open to the Executive Officers and the members of the Executive Committee since 2015.

These attributions are decided upon by the Board of Directors pursuant to the authorizations granted by the General Meeting, and most recently by the Combined General Meeting of May 4, 2022 for a period of 38 months.

Since 2019, the Board of Directors has decided, in accordance with the general market trend, to grant performance shares only (instead of a mix of stock options and performance shares) to all beneficiaries, in order to simplify and standardize the scheme.

The system for the LTI plans is aimed at three sets of beneficiaries:

- the Company's Executive Officer, for whom the attribution of LTI and its evolution over time continue to be valued in terms of the IFRS valuation (and not as attributed volumes), all stock option and performance share plans included;
- the members of the Executive Committee and the Group's managers who hold positions with a high level of responsibility or who make special contributions to the Group, all of whom benefit, beginning in 2015 for the Executive Committee and since 2019/2020 for the other beneficiaries, from attribution exclusively in the form of performance shares;
- the specific contributors, such as those employees distinguished by the quality of their conduct in exceptional situations, the inventors and innovators, the middle managers, as well as an expanded category of new employee beneficiaries.

The criteria used to draw up the lists of the beneficiary employees reflect the jobs and the geographical areas in which the Group carries out its activities and the specific contribution, the particular potential, or the individual or collective conduct of the persons concerned, which has been noted in exceptional situations. The lists of beneficiary employees are also drawn up with the desire to ensure a certain rotation and an expansion of the beneficiary population. Accordingly, around one-third of the beneficiaries of the plans dated September 29, 2022 are employees who had not been awarded stock options/performance shares during the last five years.

ATTRIBUTIONS OF PERFORMANCE SHARES ON SEPTEMBER 29, 2022

Total number of performance shares	460,415
% of the share capital	0.09%
Number of grants ^(a)	2,635
% of employees	3.91%

(a) Including 2,545 distinct beneficiaries.

Performance conditions apply to all the performance shares which are awarded to all the beneficiaries. They are described on pages 196 to 197.

At December 31, 2022, the aggregate total of outstanding performance shares for which the definitive grant date has not yet occurred and the outstanding stock options has not yet been exercised corresponds to the number of shares representing 0.52% of the share capital on this date.

2. Stock option plans (Information to be regarded as the Special Report of the Board of Directors within the meaning of article L. 225-184 of the French Commercial Code)

Pursuant to the decisions of the Board of Directors, following the authorizations of the General Meeting and on the recommendation of the Remuneration Committee, the Company has adopted plans granting a certain number of stock options to certain employees of the Company and its subsidiaries worldwide, including the Executive Officer.

These stock options are granted for a price which cannot be lower than the average opening market price over the 20 trading days preceding the attribution date. The maximum exercise period is 10 years since the stock option plan dated October 14, 2011.

The stock options cannot be exercised before a minimum period of four years after they are awarded. The Board of Directors has the power to terminate this lock-in period if there is a takeover bid for the Company's shares or a merger or takeover of the Company.

As of December 31, 2022, the number of outstanding share options granted by the Board of Directors under the plans approved by Annual General Meetings amounted to 1,340,889 options after adjustment (average price of 72.38 euros), or 0.26% of share capital.

Of the total stock options authorized for issue by the General Meeting of May 4, 2022 there was still a potential attribution of 10,469,005 stock options as at December 31, 2022 (no stock options were attributed since 2019, as the Board of Directors decided to only attribute performance shares).

TABLE 8. SUMMARY OF THE ONGOING STOCK OPTION PLANS IN 2022

	2012	2012	2013	2014	2015	2016	2017	2018	Total
Date of authorization by the EGM	05/05/10	05/05/10	05/07/13	05/07/13	05/07/13	05/12/16	05/12/16	05/12/16	
Date of Board meeting	05/11/12 ^(e)	09/27/12	09/26/13	09/22/14	09/28/15	11/29/16	09/20/17	09/25/18	
Total number of share subscription options granted ^(a)	6,000	704,791	768,866	868,385	467,194	143,240	73,540	73,380	
<i>Benoît Potier</i> ^(a)	—	88,000	100,000	100,000	70,000	60,000	23,100	23,690	
<i>Pierre Dufour</i> ^(a)	—	50,000	57,000	57,000	39,900	—	—	—	
<i>Of which the top ten employee beneficiaries (excluding Executive Officers)</i>	—	183,000	208,000	212,000	92,090	23,160	7,160	6,540	
Number of beneficiaries	1	672	727	863	399	243	204	217	
% of share capital represented by each grant	N/A	0.23%	0.25%	0.25%	0.14%	0.04%	0.02%	0.02%	
Rate of achievement of performance conditions	100%	90.50%	94.90%	83.38%	82.50%	82.87%	100%	100%	
Option exercise period start date	05/11/16	09/27/16	09/22/17	09/22/18	09/28/19	11/29/20	09/29/21	09/25/22	
Expiration date	05/10/22	09/26/22	09/25/23	09/21/24	09/27/25	11/28/26	09/19/27	09/24/28	
Subscription price in euros	97.00	96.61	102.00	97.00	105.00	93.00	104.00	107.00	
As of 12/31/22, subscription price in euros ^(b)	N/A	63.59	67.15	70.42	76.23	69.33	77.54	87.97	
As of 12/31/22, adjusted number of stock options ^(b)	8,265	915,684	1,025,078	1,073,286	599,410	182,080	96,317	88,916	
As of 12/31/22, number of shares subscribed ^(c)	8,265	818,288	666,007	410,035	156,781	31,334	19,044	5,834	
Number of stock options cancelled ^{(b) (c)}	—	97,396	64,950	200,242	121,602	35,210	7,093	6,066	
NUMBER OF STOCK OPTIONS REMAINING ^(b)	—	—	294,121	463,009	321,027	115,536	70,180	77,016	1,340,889
					As of % of the share capital				0.26%
									523,450,271

(a) Stock options granted (historical data).

(b) Adjusted for share capital increases by attributions of free shares (2022, 2019, 2017, 2014, 2012) and for the share capital increase in cash of October 11, 2016.

(c) Loss of exercise rights.

(d) Number of shares or stock options (historical data).

(e) Pursuant to a delegation by the Board of Directors on May 9, 2012.

The May 2012 plan, which concerns one employee, is based on an objective of an average gap: ROCE-WACC (weighted average cost of capital over seven years).

The total number of options remaining to be exercised by Mr François Jackow on December 31, 2022 is shown in the table on page 200.

DETAIL OF THE ONGOING OPTION PLANS IN 2022 FOR BENOÎT POTIER ⁽¹⁾

	2012	2013	2014	2015	2016	2017	2018
Number of stock options granted ^(a)	88,000	100,000	100,000	70,000	60,000	23,100	23,690
Adjusted number of stock options granted before applying the rate of achievement of the performance conditions ^(b)	97,052	110,283	102,700	79,263	66,161	28,092	26,127
Rate of achievement of the performance conditions	90.50%	94.90%	83.38%	82.50%	82.87%	100.00%	100.00%
Number of stock options after applying the rate of achievement of the performance conditions	87,832	104,659	85,631	65,391	54,827	28,092	26,127
Adjustments impact after applying the rate of achievement of the performance conditions	21,870	26,048	27,781	14,155	11,871	2,892	2,688
Adjusted total number of stock options granted after applying the rate of achievement of the performance conditions	109,702	130,707	113,412	79,546	66,698	30,984	28,815

(a) Stock options granted (historical data).

(b) To take into account, if applicable, capital increase through free share issues (2022, 2019, 2017, 2014, 2012) and the capital increase in cash on October 11, 2016.

N.B.: See page 186 for the adjusted number of stock options remaining to be exercised by the Company Officer as at December 31, 2022.

2.1. STOCK OPTIONS GRANTED IN 2022

No stock options were granted in 2022. As in 2019, 2020 and 2021, the Board of Directors' meeting of September 29, 2022, decided, in accordance with the general market trend, to award only performance shares (instead of a mix of stock options and performance shares as before) to all beneficiaries, in order to simplify and standardize the LTI scheme.

Table 9

TABLE 9.1. OPTIONS GRANTED TO THE 10 EMPLOYEES (EXCLUDING CORPORATE OFFICERS) WHO WERE GRANTED THE HIGHEST NUMBER OF STOCK OPTIONS

Not applicable (no stock options granted in 2022).

2.2. STOCK OPTIONS EXERCISED IN 2022

Part of the stock options granted between 2012 and 2018 by the Board of Directors was exercised during the 2022 fiscal year for a total of 352,635 shares at an average price of 71.14 euros.

TABLE 9.2. STOCK OPTIONS EXERCISED BY THE 10 EMPLOYEES OF L'AIR LIQUIDE S.A AND ITS SUBSIDIARIES (EXCLUDING CORPORATE OFFICERS) WHO EXERCISED THE HIGHEST NUMBER OF OPTIONS

Grant date	Number of options exercised	Average price (in euros) ^(a)
09/27/2012	36,889	69.92
09/26/2013	31,538	68.71
09/22/2014	19,270	75.31
09/28/2015	3,747	81.46
11/29/2016	76	69.33
TOTAL	91,520	71.11

(a) Historical data.

TABLE 9.3. STOCK OPTIONS EXERCISED BY THE 10 EMPLOYEES OF L'AIR LIQUIDE S.A (EXCLUDING CORPORATE OFFICERS) WHO EXERCISED THE HIGHEST NUMBER OF OPTIONS

Grant date	Number of options exercised	Average price (in euros) ^(a)
09/27/2012	37,964	69.56
09/26/2013	14,624	70.66
09/22/2014	18,332	75.00
09/28/2015	5,043	77.71
11/29/2016	76	69.33
TOTAL	76,039	71.62

(a) Historical data.

⁽¹⁾ Chairman and Chief Executive Officer from January 1, 2022 to May 31, 2022 and Chairman of the Board of Directors from June 1 to December 31, 2022.

3. Performance share plans (information to be regarded as the special Report of the Board of Directors within the meaning of article L. 225-197-4 of the French Commercial Code)

3.1. DESCRIPTION

Since 2008, performance share attributions have been designed to retain and motivate talented employees dynamically and to reward performance over the medium term.

The Extraordinary General Meeting of May 4, 2022 authorized the Board to attribute performance shares to the Group's employees, within an upper attribution limit equal to 0.5% of the share capital over 38 months; pursuant to this upper limit, it fixed the limit on the number of shares that can be attributed to the Executive Officers over the same period, which amounts to 0.1% of the share capital.

For each attribution, the Board determines two different plan regulations (the "France" Plan and the "World" Plan) which govern the attribution of performance shares to the beneficiaries determined by the Board of Directors. The "France" and "World" Plans mainly differ in the number of years of presence required, and to the correlative absence of any holding requirement for the "World" Plan as described below.

The performance shares are accompanied by:

- a continued service requirement during the vesting period: the shares granted to a beneficiary shall only finally vest if he or she has been an employee or corporate officer of a Group company during a vesting period, calculated as from the grant date, of three years for "France" Plan beneficiaries and four years for "World" Plan beneficiaries. In the event of retirement, the beneficiary retains his rights, being no longer required to satisfy the continued service requirement;
- performance conditions which relate, since the first attribution in 2008, to all performance shares awarded to any beneficiary; see the performance conditions in the summary table for attribution of performance shares below;
- a holding obligation: with effect from the definitive attribution date, the beneficiaries of the "France" Plan have an obligation to hold the shares for an additional two years during which the said shares cannot be transferred (other than in the event of a death or disability).

To date, the performance shares delivered have been treasury shares issued as part of the Company's buyback program (see page 446).

The outstanding performance shares attributed by the Board of Directors pursuant to the authorizations voted by the General Meetings, for which the definitive attribution has not yet occurred, amounted, after adjustment, to 1,347,690 shares as at December 31, 2022, i.e. 0.26% of the shares that make up the share capital.

Out of the total performance shares whose award was authorized by the General Meeting of May 4, 2022 for 38 months, 2,156,836 performance shares remained potentially available for award as at December 31, 2022.

Description of the stock option and performance share plans

TABLE 10. SUMMARY OF THE ONGOING PERFORMANCE SHARE PLANS IN 2022

	Performance shares 2017	Performance shares 2018	Performance shares 2019	Performance shares 2020	Performance shares 2021	Performance shares 2022	Total
Date of authorization by the EGM	05/12/2016	05/12/2016	05/07/2019	05/07/2019	05/07/2019	05/04/2022	
Date of award by the Board meeting	09/20/2017	09/25/2018	09/30/2019	09/29/2020	09/29/2021	09/29/2022	
Total number of performance shares awarded ^(a)	416,579	393,774	349,173	345,923	376,435	460,415	
<i>François Jackow</i>	-	-	-	-	-	9,790 ^(f)	
<i>Benoît Potier</i>	17,980	18,230	18,650	17,640 ^(e)	18,800 ^(e)	0	
<i>of which the top ten employee beneficiaries (excluding Executive Officers) receiving the highest number of shares</i>	71,363	69,100	57,120	54,150	65,570	74,700	
Share capital represented by each award	0.11%	0.09%	0.07%	0.07%	0.08%	0.09%	
Number of grants	1,832	1,734	1,812	2,294	2,154	2,635	
Performance conditions ("France" and "World" Plans), over a period of three years	■ Recurring EPS	■ Recurring EPS	■ ROCE	■ ROCE	■ ROCE	■ ROCE	
	■ TSR, including an element of relative comparison	■ TSR, including an element of relative comparison	■ TSR, including an element of relative comparison	■ TSR, including an element of relative comparison	■ TSR, including an element of relative comparison	■ TSR, including an element of relative comparison	
				■ Group's Carbon Intensity	■ Group's Carbon Intensity	■ Group's Carbon Intensity	
Number of performance shares cancelled before definitive award	40,278	38,580	154,718	47,873	7,061	4,960	
Rate of achievement of the performance conditions ^{(b)(d)}	100%	100%	65.30%	93.02%	To be recorded in 2024	To be recorded in 2025	
"France" Plan							
Definitive award date	09/20/2020	09/25/2021	09/30/2022	09/29/2023	09/29/2024	09/29/2025	
End of holding period	09/20/2022	09/25/2023	09/30/2024	09/29/2025	09/29/2026	09/29/2027	
Number of performance shares after definitive award	161,542	156,779	86,458	—	—	—	
Adjusted number of performance shares after definitive award ^(c)	195,990	169,087	105,793	—	—	—	
Adjusted number of performance shares in acquisition period ^(c)	—	—	—	137,609	176,535	180,005	
"World" Plan							
Definitive award date (no additional holding period)	09/20/2021	09/25/2022	09/30/2023	09/30/2024	09/29/2025	09/29/2026	
Number of performance shares after definitive award	221,414	205,778	—	50	—	—	
Adjusted number of performance shares after definitive award ^(c)	270,532	251,577	—	50	—	—	
Adjusted number of performance shares in acquisition period ^(c)	—	—	150,006	195,710	232,375	275,450	
ADJUSTED NUMBER OF PERFORMANCE SHARES DEFINITELY AWARDED ("FRANCE" AND "WORLD") ^(c)	466,522	420,664	105,793	50	0	0	
ADJUSTED NUMBER OF PERFORMANCE SHARES IN ACQUISITION PERIOD ("FRANCE" AND "WORLD") ^(c)	—	—	150,006	333,319	408,910	455,455	1 347 690 *

(a) Number of shares (historical data).

(b) The objectives set are made public ex-post. For the 2020 plans, the objectives set are described on page 200.

(c) Adjusted for share capital increases by attributions of free shares (2022, 2019, 2017) and for the share capital increase in cash of October 11, 2016.

(d) The number of performance shares definitively awarded depends upon rate of achievement of the performance conditions which ranges from 0% to 100%. If the objective set is achieved or exceeded, the award is 100% (no additional award in the event of an overperformance).

(e) In view of the proration rules applying to Mr Benoît Potier, as recalled on pages 180 and 186, the maximum number of shares delivered, after recording of the performance criteria, will be prorated in the following proportions: 80.5% for the 2020 plan (i.e. a reduction of -19.5%); and 47.1% for the 2021 plan (i.e. a reduction of -52.9%).

(f) Mr François Jackow also received performance shares in 2022 as an employee (for the period from January 1 to 31 May 31, 2022 – see details under Table 2).

* Number of performance shares after applying the rate of achievement of the performance conditions recorded by the Board on February 15, 2023 (2020 plans). As of December 31, 2022 the outstanding performance shares which have not yet been definitively awarded amounted to 1,380,130 shares; after applying the rate of achievement of the performance conditions, it amounts to 1,347,690 shares.

Description of the stock option and performance share plans

DETAIL OF THE PERFORMANCE SHARE PLANS UNDERWAY IN 2022 FOR MR BENOÎT POTIER ⁽²⁾

	Performance shares 2017	Performance shares 2018	Performance shares 2019	Performance shares 2020	Performance shares 2021	Performance shares 2022
Number of performance shares awarded ^(a)	17,980	18,230	18,650	17,640	18,800	—
Adjusted number of performance shares awarded, before applying the rate of achievement of the performance conditions ^(b)	21,864	20,106	20,569	19,455	20,734	N/A
Rate of achievement of performance conditions	100%	100%	65.3%	93.02%	To be recorded in February 2024	N/A
Adjusted number of performance shares on the definitive award date	21,864	20,106	14,813	14,568 ^(c)	—	N/A

(a) Number of shares (historical data).

(b) In order to take into account share capital increases through free share issues (2022, 2019, 2017) and the share capital increase in cash on October 11, 2016.

(c) Subject to definitive award on September 29, 2023.

DETAIL OF THE PERFORMANCE SHARE PLANS UNDERWAY IN 2022 FOR MR FRANÇOIS JACKOW ⁽³⁾

	Performance shares 2022
Number of performance shares awarded ^(a)	9,790
Adjusted number of performance shares awarded, before applying the rate of achievement of the performance conditions	9,790
Rate of achievement of performance conditions	To be recorded in February 2025
Adjusted number of performance shares on the definitive award date	—

(a) Number of shares (historical data).

3.2. PERFORMANCE SHARE PLANS DATED SEPTEMBER 29, 2022

Pursuant to the authorization of the Combined General Meeting of May 4, 2022, in connection with the “France” and “World” Plans dated September 29, 2022, the Board of Directors made a conditional allocation of a total of 460,415 shares representing 0.09% of the share capital in terms of the number of shares to 2,575 distinct beneficiaries (181,480 shares allocated to the beneficiaries of the “France” Plan and 278,935 shares allocated to the beneficiaries of the “World” Plan).

The IFRS individual fair value for these performance shares amounts to 98.26 euros for the “France” Plan and to 94.72 euros for the “World” Plan – see details of this IFRS value in Note 21.5 “Share-based payments” in the Consolidated financial statements.

Subject to the satisfaction of the presence and performance conditions, these shares will be fully vested for the beneficiaries on September 29, 2025 for the “France” Plan (but cannot be sold until September 29, 2027) and on September 29, 2026 for the “World” Plan.

For this award, the Board adopted performance conditions calculated over three fiscal years – for a full description, see pages 196 et 197.

The rate of achievement of the performance conditions will be recorded by the Board of Directors at its meeting to approve the financial statements for the 2024 fiscal year.

The Board decided to apply to Mr Benoît Potier the principle of proration on termination of his office as Chief Executive Officer on May 31, 2022, even if he maintains the position of non-executive officer within the Group. The performance shares attributed to Mr Benoît Potier in 2020 and 2021 will therefore be **prorated** – for more details see page 186.

SEPTEMBER 29, 2022 PERFORMANCE SHARE PLAN – DISTRIBUTION BETWEEN THE VARIOUS CATEGORIES OF BENEFICIARIES

	Number of beneficiaries	Number of shares
Executive officers of L’Air Liquide S.A.	1	9,790
Senior executives (who are not corporate officers of L’Air Liquide S.A.), managers and special contributors	127	175,660
Other employees, new beneficiaries	2,447	274,965

⁽²⁾ Chairman and Chief Executive Officer from January 1, 2022 to May 31, 2022 and Chairman of the Board of Directors from June 1 to December 31, 2022.

⁽³⁾ Chief Executive Officer (CEO) since June 1, 2022.

SEPTEMBER 29, 2022 PERFORMANCE SHARE PLAN- SHARES ALLOCATED TO THE 10 EMPLOYEES (EXCLUDING CORPORATE OFFICERS) OF L'AIR LIQUIDE S.A. WHO HAVE BEEN AWARDED THE HIGHEST NUMBER OF SHARES

	Number of shares
For L'Air Liquide S.A.	52,965
For L'Air Liquide S.A. and its subsidiaries	74,700

3.3. RATE OF ACHIEVEMENT OF THE PERFORMANCE CONDITIONS FOR THE AWARD OF SEPTEMBER 29, 2020

Based on the financial statements adopted for the 2022 fiscal year, subject to the approval of the next General Meeting, the Board of Directors' meeting of February 15, 2023 recorded the rate of achievement of the performance conditions defined at the time of the award of the performance share dated September 29, 2020. Consequently, the total proportion of shares subject to conditions which are fully vested for the beneficiaries is 93.02% – for more details, see page 200.

EMPLOYEE SAVINGS AND SHARE OWNERSHIP

For many years, Air Liquide has pursued an active policy promoting employee profit-sharing and incentive schemes in connection with the Group's growth and the development of employee share ownership in the Company's capital.

1. Profit-sharing

Profit-sharing and incentive schemes have been organized for many years in **Group companies in France** and paid almost 60.0 million euros for 2021 performance. This year these schemes cover over 98% of employees.

Under the main Company Savings Plans, Group employees in France can make payments to dedicated and diversified investment funds, on a voluntary basis or based on profit-sharing, incentives and, where applicable, contributions, and thus benefit from the preferential tax regime applicable in consideration for locking-in their assets over a period of five years.

In 2022, **L'Air Liquide S.A.** distributed 8.6 million euros gross (excluding Company contributions) in respect of profit-sharing and incentives. Some 1,252 employees benefited from these schemes. Company contributions to the Company Savings Plan are negotiated every year and amounted to nearly 1.26 million euros gross in 2022. These payments correspond to an average amount of 6,887 euros per employee excluding Company contribution.

Since 2021, the employees of **L'Air Liquide S.A.** may invest their incentive and profit-sharing (excluding Company contributions) in the Air Liquide Supplementary Retirement Savings Plan. In 2022, **440 thousand euros** were invested in this plan.

In 2022, L'Air Liquide S.A. employees invested 90.3% of their profit-sharing and incentives in savings plans, respectively in bond-weighted assets (27%) and equity-weighted assets (27%).

A total of 46% of employee savings was invested in corporate mutual fund holding only Air Liquide shares compared with 31% last year.

2. Employee share ownership

The Group is keen to involve its employees in its development. These employee share ownership offers contribute significantly to increasing employee motivation and a sense of belonging to the Group.

Since 1986, the Company has regularly performed share capital increases reserved for Group employees, for which subscription is offered at a preferential rate. The most recent capital increase, conducted in November 2021, resulted in the subscription of 1,098,738 shares by 22,420 Group employees, representing 33.81% of the eligible employees in 74 countries.

In France, the shares subscribed in these capital increases are also eligible for the preferential tax regime applicable provided that they are blocked over a period of five years, while those held abroad are governed by the legal regulations prevailing in each relevant country.

At the end of 2022, the share of capital held by Group employees and former employees was estimated at 2.8%, of which 2.0% corresponded (within the meaning of article L. 225-102 of the French Commercial Code) to shares subscribed by employees under employee-reserved capital increases or held through mutual funds. The percentage of Group employees holding L'Air Liquide S.A. shares totaled around 46% of the workforce.

Air Liquide wishes to pursue this strategy and further the development of its employee share ownership, by regularly offering share capital increases to employees.

Transactions involving Company shares performed by Executive Officers in accordance with article L. 621-18-2 of the French Monetary and Financial Code

— TRANSACTIONS INVOLVING COMPANY SHARES PERFORMED BY EXECUTIVE OFFICERS IN ACCORDANCE WITH ARTICLE L. 621-18-2 OF THE FRENCH MONETARY AND FINANCIAL CODE —

In 2022, the following transactions involving Company shares were performed by corporate officers and members of Executive Management, pursuant to article L. 621-18-2 of the French Monetary and Financial Code:

	Nature of the transactions	Date of transaction	Average price <i>(in euros)</i>
François Jackow	Sale of 800 shares of L'Air Liquide S.A.	January 4, 2022	155.32
François Jackow	Exercise of 3,205 options of L'Air Liquide S.A.	March 25, 2022	77.67
Bertrand Dumazy	Purchase of 500 shares of L'Air Liquide S.A.	April 6, 2022	161.32
François Jackow	Sale of 563 shares of L'Air Liquide S.A.	April 7, 2022	162.73
François Jackow	Sale of 160 shares of L'Air Liquide S.A.	April 29, 2022	164.61
François Jackow	Exercise of 320 options of L'Air Liquide S.A.	May 4, 2022	77.67
François Jackow	Exercise of 4,057 options of L'Air Liquide S.A.	May 10, 2022	77.67
François Jackow	Definitive free share award of 5,266 shares of L'Air Liquide S.A.	September 30, 2022	116.90
Benoît Potier	Definitive free share award of 14,813 shares of L'Air Liquide S.A.	September 30, 2022	116.90
Benoît Potier	Donation of 300 shares of L'Air Liquide S.A.	December 6, 2022	136.60

FACTORS THAT MAY HAVE AN IMPACT IN THE EVENT OF A TAKEOVER BID

Pursuant to article L. 22-10-11 of the French Commercial Code, the factors that may have an impact in the event of a takeover bid are set forth below.

1. Powers of the Board of Directors

The share buyback authorization currently granted to the Company excludes any buybacks during a period of bidding on the Company's shares.

Furthermore, the following delegations of authority granted to the Board of Directors are suspended during periods of takeover bids:

- the delegation of authority granted to the Board of Directors by the Combined General Meeting of May 4, 2022 in its nineteenth resolution to increase the share capital by incorporation of additional paid-in capital, reserves, profits or other and the delegation;
- the delegation of authority granted to the Board of Directors by the Combined General Meeting of May 4, 2021 in its fifteenth resolution to increase the share capital by issuing ordinary shares or marketable securities which would replace it subject to approval by the Combined General Meeting of May 3, 2023.

Some provisions relating to the regulations of the stock options plans are also applicable in the event of a takeover bid launched on the Company's shares – page 238 of this Universal Registration Document.

2. Agreements that may be modified or terminated in the event of a change of control of the Company

Several bond issues under the Group's EMTN program include a clause providing that, under certain circumstances, the early repayment of such bonds may be requested in the event of a change of control of the Company:

- private placement issued in January 2008 maturing in January 2038 (15 billion yen, or 115.0 million euros equivalent ⁽¹⁾);
- bond issued in March 2013 maturing in September 2023 (300 million euros);
- private placement issued in January 2014 maturing in January 2026 (150 million euros);
- private placement issued in March 2014 maturing in March 2029 (100 million euros);
- bond issued in June 2014 maturing in June 2024 (500 million euros);
- bond issued in June 2015 maturing in June 2025 (500 million euros);
- bonds issued in June 2016 maturing in June 2024 (500 million euros), maturing in June 2028 (1,000 million euros);
- bond issued in March 2017 maturing in March 2027 (600 million euros);
- bond issued in June 2019 maturing in June 2030 (600 million euros);
- private placement issued in March 2020 maturing in March 2025 (100 million euros);
- bond issued in April 2020 maturing in April 2025 (500 million euros), maturing in April 2030 (500 million euros);
- green bond issued in May 2021 maturing in May 2031 (500 million euros);
- bond issued in September 2021 maturing in September 2033 (500 million euros);
- bond issued in September 2022 maturing in September 2032 (500 million euros).

Three bonds (or private placements) issued outside of the Group's EMTN program include a clause providing that, under certain circumstances, the early repayment of such bonds may be requested in the event of a change of control of the Company:

- US private placements issued in September 2012, maturing in September 2024 (200 million US dollars, or 187.5 million euros equivalent ⁽²⁾) and September 2027 (100 million US dollars, or 93.7 million euros equivalent ⁽²⁾);
- US public bond (144a format) issued in September 2016 maturing in September 2023 (750 million US dollars, or 703.1 million euros equivalent ⁽²⁾), maturing in September 2026 (1,250 million US dollars, or 1,171.9 million euros equivalent ⁽²⁾) and September 2046 (750 million US dollars, or 703.1 million euros equivalent ⁽²⁾);
- US public bond (144a format) issued in September 2019 maturing in September 2029 (500 million US dollars, or 468.8 million euros equivalent ⁽²⁾).

Some credit agreements of the Group include a clause providing that, under certain circumstances, the early repayment of the advances made under those credit agreements may be requested in the event of a change of control of the Company.

⁽¹⁾ Converted at closing rates on December 31, 2022, with 1 EUR = 140.66 JPY

⁽²⁾ Converted at closing rates on December 31, 2022, with 1 EUR = 1.0666 USD

3. Agreements providing indemnities for Board members or employees if they resign or are dismissed without good and sufficient cause or if their employment ends due to a takeover bid

The indemnities granted to the Company's corporate officers in the event of a termination of their office are detailed on pages 189 to 190 and 202 to 203 of this Universal Registration Document.



4

Financial Statements

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CONSOLIDATED FINANCIAL STATEMENTS

Consolidated income statement

For the year ended December 31

<i>(in millions of euros)</i>	Notes	2021	2022
Revenue	(3)	23,334.8	29,934.0
Other income	(4)	226.8	244.3
Purchases	(4)	(9,388.7)	(13,813.0)
Personnel expenses	(4)	(4,362.9)	(4,963.4)
Other expenses	(4)	(3,477.2)	(4,074.2)
Operating income recurring before depreciation and amortization		6,332.8	7,327.7
Depreciation and amortization expense	(4)	(2,172.5)	(2,465.9)
Operating income recurring		4,160.3	4,861.8
Other non-recurring operating income	(5)	8.3	262.4
Other non-recurring operating expenses	(5)	(159.0)	(833.1)
Operating income		4,009.6	4,291.1
Net finance costs	(6)	(280.0)	(288.4)
Other financial income	(6)	3.6	32.4
Other financial expenses	(6)	(131.9)	(130.0)
Income taxes	(7)	(914.8)	(1,002.3)
Share of profit of equity affiliates	(14)	5.4	1.1
PROFIT FOR THE PERIOD		2,691.9	2,903.9
■ Minority interests		119.7	145.1
■ Net profit (Group share)		2,572.2	2,758.8
Basic earnings per share (in euros)	(8)	4.94	5.28
Diluted earnings per share (in euros)	(8)	4.92	5.27

Accounting principles and notes to the Financial Statements begin on page 257.

Statement of net income and gains and losses recognized directly in equity

For the year ended December 31

<i>(in millions of euros)</i>	2021	2022
Profit for the period	2,691.9	2,903.9
Items recognized in equity		
Change in fair value of financial instruments	62.8	39.8
Change in foreign currency translation reserve	1,251.3	648.4
Items that may be subsequently reclassified to profit	1,314.1	688.2
Actuarial gains/ (losses)	157.5	222.8
Items that may not be subsequently reclassified to profit	157.5	222.8
Items recognized in equity, net of taxes	1,471.6	911.0
Net income and gains and losses recognized directly in equity	4,163.5	3,814.9
■ Attributable to minority interests	153.7	147.4
■ Attributable to equity holders of the parent	4,009.8	3,667.5

Consolidated balance sheet

For the year ended December 31

ASSETS (in millions of euros)	Notes	December 31, 2021	December 31, 2022
Goodwill	(10)	13,992.3	14,587.2
Other intangible assets	(11)	1,452.6	1,811.4
Property, plant and equipment	(12)	22,531.5	23,646.9
Non-current assets		37,976.4	40,045.5
Non-current financial assets	(13)	745.4	775.5
Investments in equity affiliates	(14)	158.0	185.7
Deferred tax assets	(15)	239.3	232.3
Fair value of non-current derivatives (assets)	(25)	73.4	40.8
Other non-current assets		1,216.1	1,234.3
TOTAL NON-CURRENT ASSETS		39,192.5	41,279.8
Inventories and work-in progress	(16)	1,585.1	1,961.0
Trade receivables	(17)	2,694.1	3,034.8
Other current assets	(19)	810.5	985.4
Current tax assets		106.5	196.3
Fair value of current derivatives (assets)	(25)	63.9	107.6
Cash and cash equivalents	(20)	2,246.6	1,911.4
TOTAL CURRENT ASSETS		7,506.7	8,196.5
ASSETS HELD FOR SALE		83.9	41.7
TOTAL ASSETS		46,783.1	49,518.0

EQUITY AND LIABILITIES (in millions of euros)	Notes	December 31, 2021	December 31, 2022
Share capital		2,614.1	2,879.0
Additional paid-in capital		2,749.2	2,349.0
Retained earnings		13,645.1	15,868.0
Treasury shares		(118.3)	(118.4)
Net profit (Group share)		2,572.2	2,758.8
Shareholders' equity		21,462.3	23,736.4
Minority interests		536.5	835.6
TOTAL EQUITY ^(a)	(21)	21,998.8	24,572.0
Provisions, pensions and other employee benefits	(22, 23)	2,291.9	1,991.1
Deferred tax liabilities	(15)	2,126.8	2,465.4
Non-current borrowings	(24)	10,506.3	10,168.8
Non-current lease liabilities	(12)	1,032.8	1,052.2
Other non-current liabilities	(26)	343.0	317.8
Fair value of non-current derivatives (liabilities)	(25)	39.0	54.5
TOTAL NON-CURRENT LIABILITIES		16,339.8	16,049.8
Provisions, pensions and other employee benefits	(22, 23)	309.4	282.4
Trade payables	(27)	3,333.2	3,782.6
Other current liabilities	(26)	2,002.9	2,215.6
Current tax payables		277.8	260.1
Current borrowings	(24)	2,188.6	2,003.9
Current lease liabilities	(12)	228.0	227.6
Fair value of current derivatives (liabilities)	(25)	67.5	108.6
TOTAL CURRENT LIABILITIES		8,407.4	8,880.8
Liabilities held for sale		37.1	15.4
TOTAL EQUITY AND LIABILITIES		46,783.1	49,518.0

(a) A breakdown of changes in shareholders' equity and minority interests is presented on pages 255 and 256.

Consolidated cash flow statement

For the year ended December 31

<i>(in millions of euros)</i>	Notes	2021	2022
Operating activities			
Net profit (Group share)		2,572.2	2,758.8
Minority interests		119.7	145.1
Adjustments:			
■ Depreciation and amortization expense	(4)	2,172.5	2,465.9
■ Changes in deferred taxes ^(a)		106.2	92.6
■ Changes in provisions		(36.0)	565.9
■ Share of profit of equity affiliates	(14)	(5.4)	(1.1)
■ Profit/loss on disposal of assets		27.5	(129.9)
■ Net finance costs		203.1	215.4
■ Other non cash items		132.3	142.5
Cash flows from operating activities before changes in working capital ^(b)		5,292.1	6,255.2
Changes in working capital	(18)	377.3	(396.8)
Other cash items		(98.7)	(48.3)
Net cash flows from operating activities		5,570.7	5,810.1
Investing activities			
Purchase of property, plant and equipment and intangible assets	(11,12)	(2,916.8)	(3,273.0)
Acquisition of consolidated companies and financial assets		(659.8)	(135.8)
Proceeds from sale of property, plant and equipment and intangible assets		88.7	92.0
Proceeds from the sale of subsidiaries, net of net debt sold and from the sale of financial assets		130.9	61.1
Dividends received from equity affiliates		5.5	13.8
Net cash flows used in investing activities		(3,351.5)	(3,241.9)
Financing activities			
Dividends paid ^(c)			
■ L'Air Liquide S.A.		(1,334.8)	(1,410.5)
■ Minority interests		(82.9)	(76.3)
Proceeds from issues of share capital ^(c)		175.4	37.7
Purchase of treasury shares ^(c)		(40.1)	(191.5)
Net financial interests paid		(204.9)	(236.1)
Increase (decrease) in borrowings		(17.2)	(617.7)
Lease liabilities repayments		(241.4)	(249.0)
Net interests paid on lease liabilities		(33.0)	(33.6)
Transactions with minority shareholders		(36.8)	(4.0)
Net cash flows from (used in) financing activities		(1,815.7)	(2,781.0)
Effect of exchange rate changes and change in scope of consolidation		16.8	(165.2)
Net increase (decrease) in net cash and cash equivalents		420.3	(378.0)
NET CASH AND CASH EQUIVALENTS AT THE BEGINNING OF THE PERIOD		1,718.6	2,138.9
NET CASH AND CASH EQUIVALENTS AT THE END OF THE PERIOD		2,138.9	1,760.9

(a) Changes in deferred taxes reported in the consolidated cash flow statement do not include changes in deferred taxes relating to disposals of assets and capitalized finance costs.

(b) The cash flows from operating activities before changes in net working capital are presented before payment of interests on net debt net of taxes and of interests paid on lease liabilities.

(c) A breakdown of dividends paid, share capital increases and treasury share purchases is provided on pages 255 and 256.

The analysis of net cash and cash equivalents at the end of the period is as follows:

<i>(in millions of euros)</i>	Notes	December 31, 2021	December 31, 2022
Cash and cash equivalents	(20)	2,246.6	1,911.4
Bank overdrafts (included in current borrowings)		(107.7)	(150.5)
NET CASH AND CASH EQUIVALENTS		2,138.9	1,760.9

Consolidated statement of changes in equity

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY FROM JANUARY 1, 2022
TO DECEMBER 31, 2022

<i>(in millions of euros)</i>	Notes	Share capital	Additional paid-in capital	Retained earnings (including net profit)	Fair value of financial instruments	Translation reserves	Treasury shares	Shareholders' equity	Minority interests	Total equity
Equity and minority interests as of January 1, 2022		2,614.1	2,749.2	17,128.4	(209.2)	(701.9)	(118.3)	21,462.3	536.5	21,998.8
Profit for the period				2,758.8				2,758.8	145.1	2,903.9
Items recognized directly in equity				223.0	39.8	645.9		908.7	2.3	911.0
Net income and gains and losses recognized directly in equity ^(a)				2,981.8	39.8	645.9		3,667.5	147.4	3,814.9
Increase (decrease) in share capital		1.9	21.6					23.5	14.2	37.7
Free shares attribution ^{(b)(c)}		269.0	(269.0)						—	
Distribution ⁽⁹⁾				(1,412.4)				(1,412.4)	(76.3)	(1,488.7)
Cancellation of treasury shares ^(c)		(6.0)	(152.8)				158.8			
Purchase/Sale of treasury shares ^(c)							(191.1)	(191.1)		(191.1)
Share-based payments				4.7			32.2	36.9		36.9
Transactions with minority shareholders recognized directly in equity				(7.8)				(7.8)	213.8	206.0
Others ^(d)				163.3		(5.8)		157.5		157.5
EQUITY AND MINORITY INTERESTS AS OF DECEMBER 31, 2022		2,879.0 ^(b)	2,349.0	18,858.0	(169.4)	(61.8)	(118.4) ^(c)	23,736.4	835.6	24,572.0

(a) The statement of net income and gains and losses recognized directly in equity is presented on page 252.

(b) Share capital as of December 31, 2022 was made up of 523,450,271 shares at a par value of 5.50 euros. During the fiscal year, movements affecting share capital were as follows:

- on June 8, 2022, share capital increase by capitalizing share premiums, and attribution of 48,905,499 free shares at an exchange rate of one new share for 10 existing shares and one new share for 100 existing registered shares held continuously from December 31, 2019 to June 7, 2022 inclusive;
- creation of 179,795 shares in cash with a par value of 5.50 euros resulting from the exercise of options before the attribution of free shares;
- creation of 172,840 shares in cash with a par value of 5.50 euros resulting from the exercise of options after the attribution of free shares;
- share capital decrease by canceling 1,098,900 shares bought under the approval of the Combined Shareholders' Meeting on May 4, 2022 before the attribution of free shares.

(c) The number of treasury shares as of December 31, 2022 totaled 1,223,450 (including 962,333 held by L'Air Liquide S.A.). During the fiscal year, movements affecting treasury shares were as follows:

- acquisitions, net of disposals, of 1,198,600 shares before the attribution of free shares;
- acquisitions, net of disposals, of 4,195 shares after the attribution of free shares;
- allocation of 357,039 shares as part of performance shares;
- cancellation of 1,098,900 shares by capital decrease;
- creation of 249,409 shares related to the attribution of free shares.

(d) Including the effects of hyperinflation in Argentina and Türkiye.

**CONSOLIDATED STATEMENT OF CHANGES IN EQUITY FROM JANUARY 1, 2021
TO DECEMBER 31, 2021**

<i>(in millions of euros)</i>	Share capital	Additional paid-in capital	Retained earnings (including net profit)	Fair value of financial instruments	Translation reserves	Treasury shares	Shareholders' equity	Minority interests	Total equity
Equity and minority interests as of January 1, 2021	2,605.1	2,608.1	15,643.9	(272.0)	(1,903.0)	(139.8)	18,542.3	462.3	19,004.6
Profit for the period			2,572.2				2,572.2	119.7	2,691.9
Items recognized directly in equity			157.5	62.8	1,217.3		1,437.6	34.0	1,471.6
Net income and gains and losses recognized directly in equity ^(a)			2,729.7	62.8	1,217.3		4,009.8	153.7	4,163.5
Increase (decrease) in share capital	9.9	162.4					172.3	3.1	175.4
Distribution			(1,335.6)				(1,335.6)	(82.9)	(1,418.5)
Cancellation of treasury shares	(0.9)	(21.3)				22.2			
Purchase/Sale of treasury shares						(40.1)	(40.1)		(40.1)
Share-based payments			1.1			39.4	40.5		40.5
Transactions with minority shareholders recognized directly in equity			(4.0)				(4.0)	0.6	(3.4)
Others ^(b)			93.3		(16.2)		77.1	(0.3)	76.8
EQUITY AND MINORITY INTERESTS AS OF DECEMBER 31, 2021	2,614.1	2,749.2	17,128.4	(209.2)	(701.9)	(118.3)	21,462.3	536.5	21,998.8

(a) The statement of net income and gains and losses recognized directly in equity is presented on page 252.

(b) Including the effects of hyperinflation in Argentina and the non significant impact of the IFRS IC agenda decision regarding the calculation of pension obligations (IAS 19).

Accounting principles

BASIS FOR PREPARATION OF THE CONSOLIDATED FINANCIAL STATEMENTS

Due to its listing on the Paris Stock Exchange and pursuant to EC Regulation No. 1606/2002 of July 19, 2002, the Consolidated Financial Statements of the Air Liquide Group for the year ended December 31, 2022 have been prepared in accordance with IFRS (International Financial Reporting Standards), as endorsed by the European Union as of December 31, 2022, and with IFRS as published by the IASB (International Accounting Standards Board). The IFRS standards and interpretations as adopted by the European Union are available at the following website:

https://ec.europa.eu/info/law/international-accounting-standards-regulation-ec-no-1606-2002/amending-and-supplementary-acts/acts-adopted-basis-regulatory-procedure-scrutiny-rps_en

The Group has not anticipated any new standards, amendments to existing standards or new interpretations published by the IASB but not yet approved or not yet mandatory in the European Union, as of December 31, 2022.

The Financial Statements are presented in millions of euros. They were approved by the Board of Directors on February 15, 2023. They will be submitted for approval to the Shareholders' Meeting on May 3, 2023.

NEW IFRS AND INTERPRETATIONS

1. Standards, interpretations and amendments endorsed by the European Union whose application is mandatory as of January 1, 2022

The following texts have no significant impact for the Group:

- amendments to IFRS 3 "Business Combinations", to IAS 16 "Property, Plant and Equipment", to IAS 37 "Provisions, Contingent Liabilities and Contingent Assets" and the annual improvements 2018-2020, issued on May 14, 2020.

2. Standards, interpretations and amendments endorsed by the European Union whose application is optional in 2022

The Group Financial Statements for the year ended December 31, 2022 do not include any potential impacts from the standards, interpretations and amendments endorsed by the European Union as of December 31, 2022, for which adoption is only mandatory as of fiscal years beginning after January 1, 2022. These texts are as follows:

- amendments to IAS 12 "Income Taxes: Deferred Tax related to Assets and Liabilities arising from a Single Transaction", issued on May 7, 2021;
- amendments to IAS 1 "Presentation of Financial Statements", issued on February 12, 2021;
- amendments to IAS 8 "Accounting Policies, Changes in Accounting Estimates and Errors: Definition of Accounting Estimates", issued on February 12, 2021.

The Group did not apply the amendment to IFRS 16 "Covid-19 – Related Rent Concessions beyond 30 June 2021", issued on March 31, 2021 and of which the implementation is optional.

Finally, the following texts are not applicable to the Group:

- IFRS 17 "Insurance Contracts", issued on May 18, 2017;
- amendments to IFRS 17 "First application of IFRS 17 and IFRS 9 – Comparative Information" issued on December 9, 2021.

3. Standards, interpretations and amendments not yet endorsed by the European Union

The impacts on the Financial Statements of texts published by the IASB as of December 31, 2022 and not yet endorsed by the European Union are currently being analyzed. These texts are as follows:

- amendments to IAS 1 "Presentation of Financial Statements: Classification of Liabilities as Current or Non-current", "Classification of Liabilities as Current or Non-current – Deferral of Effective Date" and "Non-current Liabilities with Covenants", issued on January 23, 2020, July 15, 2020 and October 31, 2022 respectively;
- amendments to IFRS 16 "Lease Liability in a Sale and Leaseback" issued on September 22, 2022.

USE OF ESTIMATES AND ASSUMPTIONS

The preparation of the Financial Statements requires Group or subsidiary management to make estimates and use certain assumptions which have a significant impact on the carrying amounts of assets and liabilities recorded in the consolidated balance sheet, the notes related to these assets and liabilities, the profit and expense items in the income statement and the commitments relating to the period-end. Balance sheet, income statement and cash flow statement line items could differ should the subsequent actual results differ from the estimates. The most significant estimates and assumptions concern namely:

- the estimated useful life of property, plant and equipment used for calculation of depreciation and amortization: these estimates are described in section 5.e of the accounting policies;
- the assumptions used to determine provisions for employee retirement benefit obligations: the actuarial assumptions used (employee turnover, mortality, retirement age, salary increase, etc.), and the discount rates used to determine the present value of obligations, as described in section 11.b of the accounting policies and in note 23.3;
- the estimates and assumptions concerning assets' impairment tests, as described in section 5.f. of the accounting policies and in note 10.2;
- the methods used to recover deferred tax assets on the balance sheet;
- the risk assessment to determine the amount of provisions for contingencies and losses;
- the accounting methods for the margin of the Engineering & Construction contracts that are set out in section 3.b of the accounting policies.
- the assumptions retained to evaluate the lease liability (IFRS 16): lease term and discount rate. They are described in section 5.g of the accounting principles.

In addition, the Group considers that climate risks are material, even though their quantified impact on the Consolidated Financial Statements of the Group is not material. The Group takes into account these risks in its closing assumptions and incorporates their potential impact in its Financial Statements. In particular, climate risks are taken into account when carrying out closing procedures, in particular the analysis of the useful lives of property, plant and equipment used for calculation of depreciation and amortization, the review of the estimates and assumptions concerning assets' impairment tests, and the risk assessment to determine the amount of provisions for contingencies and losses. The consideration of climate risks by the Group is described in particular in note 31.

ACCOUNTING POLICIES

The Consolidated Financial Statements were prepared under the historical cost convention, except for financial assets and liabilities measured at fair value through profit or loss or through other comprehensive income in accordance with IAS 32/IFRS 9. The carrying amount of other assets and liabilities hedged against fair value risk is adjusted to take into account the changes in fair value attributable to the hedged risks. In addition, the principles of fairness, going concern, and consistency were applied.

1. CONSOLIDATION METHODS

The consolidation methods used are:

- full consolidation method for subsidiaries;
- assets, liabilities, expenses and revenue of joint operations are recognized in relation to the Group's interest in these entities;
- equity method for joint ventures and associates.

a. Subsidiaries

All the subsidiaries or companies in which the Air Liquide Group exercises exclusive control are fully consolidated. Control exists when all the following conditions are met:

- the Group has existing rights that give it the current ability to direct the relevant activities;
- the Group is exposed, or has rights, to variable returns from its involvement with the entity;
- the Group has the ability to use its power over the entity so that it affects the amount of the returns.

Companies are fully consolidated from the date on which the Group obtains control and until the date on which control is transferred outside the Group.

b. Joint operations

Joint operations are joint arrangements whereby the Air Liquide Group has joint control with one or several parties through a contractual agreement, which gives it rights to the assets and obligations for the liabilities of the entity.

Assets, liabilities, expenses and revenue of joint operations are recognized in relation to the Group's interest in these entities. These amounts are recorded on each relevant line of the Financial Statements as for the consolidated entities.

c. Joint ventures

Joint ventures are joint arrangements whereby the Air Liquide Group has joint control with one or several parties through a contractual agreement, which gives it rights to the net assets of the entity.

Joint ventures are consolidated using the equity method. Under this one, the net assets and net profit of a company are recognized pro rata to the interest held by the Group in the share capital.

On acquisition of an investment in a joint venture, goodwill relating to the joint venture is included in the carrying amount of the investment.

d. Associates

Associates are investments over which the Air Liquide Group has significant influence (generally when the Group has more than a 20% interest), but no control.

Associates are consolidated using the equity method. Under this one, the net assets and net profit of a company are recognized pro rata to the interest held by the Group in the share capital.

On acquisition of an investment in an associate, the goodwill relating to the associate is included in the carrying amount of the investment.

The financial statements of subsidiaries, joint arrangements and associates are prepared as of December 31.

e. Inter-company transactions

All inter-company receivables and payables, income and expenses and profits or losses are eliminated.

2. TRANSLATION OF THE FINANCIAL STATEMENTS OF COMPANIES WHOSE FUNCTIONAL CURRENCY IS NOT THE EURO

The functional currency of an entity is the currency of the primary economic environment in which it carries out its operations. In the majority of cases, the functional currency corresponds to the local currency. However, a functional currency other than the local currency can be retained for certain entities, provided that it represents the currency of the main transactions carried out by the entity and that it ensures faithful representation of its economic environment.

The presentation currency of the Group's Consolidated Financial Statements is the euro. At the balance sheet date, the financial statements of companies whose functional currency is not the euro are translated into euros as follows:

- balance sheet items, at the official year-end exchange rates;
- income statement and cash flow statement items, using the average exchange rate over the period for each currency.

Exchange differences are recognized under a separate item "Translation reserves" in gains and losses recognized directly in equity.

Cumulative foreign exchange gains and losses as of January 1, 2004 arising from the translation into euros of the financial statements of subsidiaries whose functional currency is not the euro have been maintained as a separate component of equity.

On removal from the scope of consolidation, the cumulative exchange differences of a company whose functional currency is not the euro are recognized in the income statement.

3. REVENUE RECOGNITION

The analysis of revenue recognition is based on the Group's activities, as follow:

a. Gas & Services

The supply of gas involves local production in order to limit transport costs. Therefore, Air Liquide gas production units are located throughout the world and can supply several types of customers and industries, with the relevant volumes and services required:

Large Industries

This business is characterized by the supply of large quantities of gas contracted for a period of 15 years or longer with a limited number of customers. The Group guarantees a high level of reliability and availability of gas supply with continued service, over the long-term. In return, these contracts include guaranteed minimum volumes through firm purchase clauses (take-or-pay). Due to the volume of gas to be supplied, Air Liquide supplies its Large Industries customers directly by pipelines, from a dedicated plant or different plants connected by a network.

These plants represent significant investments that are generally made in a way to share the production assets with the other business lines of the Group, particularly the Industrial Merchant business, or intended to serve the customers in an industrial basin that is connected on a pipeline network. In these cases, the assets are not identified under the meaning of IFRS 16 "Leases" and no lease contract is contained in the contracts with customers. When the customer's gas supply comes from a dedicated plant, the Group may decide on the use of these plants under the meaning of IFRS 16 "Leases". Consequently, the gas supply contracts for the Large Industries business do not contain leases.

Customers of the Large Industries business simultaneously receive and consume the benefits granted by the gas supply service or its availability. As a result, the revenue recognition related to these contracts occurs when the gas is supplied or when the reserved capacity is made available.

Industrial Merchant, Healthcare and Electronics

The Industrial Merchant business relies mainly on the gas production capacity of Large Industries and thereafter develops its own distribution logistics. This business is characterized by a wide range of customers and markets. The contract terms can be up to five years for cylinders and liquid gas supply and up to 15 years for small on-site gas generators.

Healthcare business supplies medical gases, hygiene products, services as well as medical devices to hospitals and patients in their homes. It also produces and distributes healthcare specialty ingredients for the cosmetics, pharmaceutical and vaccine markets.

The Electronics business supplies its customers with (i) carrier gases with a business model based on long-term contracts and on guaranteed minimum volumes with take-or-pay type clauses, (ii) electronics specialty materials in the form of pure or mixed gases, (iii) advanced materials, (iv) equipment and installations and (v) services notably on-site quality control and fluid management services.

For safety and quality reasons, Air Liquide supplies gas with its own equipment (small generators, storage tank, cylinders). Customers have no right of control on the identified assets under the meaning of IFRS 16 "Leases".

Consequently, the gas supply contracts for these businesses do not contain leases and the revenue recognition occurs as follows:

- gas supply: the revenue recognition occurs when the gas is supplied or when the reserved capacity is made available;
- sale of standard equipment and materials: the revenue recognition occurs when the control of these equipment and materials is transferred, which generally takes place at their delivery;

- specific equipment and installations: the transfer of control occurs over the time, together with their construction. Consequently, the revenue recognition occurs based on the stage of completion of the contracts at the balance sheet date;
- service: the revenue recognition occurs when the service is provided.

b. Engineering & Construction

Air Liquide enters into contracts to design and build production units worldwide for the Group's own account and for third-party customers.

The control of installations is transferred progressively with their design/construction. Consequently, the revenue recognition is based on the stage of completion of the contracts at the balance sheet date. The costs associated are recognized as an expense in the period when incurred. The stage of completion is assessed by using the ratio of contract costs incurred at the balance sheet date versus total estimated contract costs.

The margin realized at the stage of completion is recognized only when it can be reliably measured. When it is probable that total contract costs will exceed total contract revenue, the expected loss is immediately recognized as a provision for onerous contracts.

c. Global Markets & Technologies

The Global Markets & Technologies business focuses on new markets requiring a global approach. This business is growing mainly within the following markets:

- new markets relating to the energy transition, as well as space, aerospace, and extreme cryogenics markets. As a consequence of its nature, the analysis of the revenue recognition on this market is done on a case-by-case basis depending on the nature of performance obligations;
- gas usages by the actors in the maritime sector, namely offshore oil and gas platforms, offshore wind turbines, or cryogenic transportation by sea. The analysis carried out for Industrial Merchant is applicable to this market.

4. TAXES

a. Income tax expense

The tax rate is calculated on the basis of the fiscal regulations enacted or substantively enacted at the fiscal year closing date in each of the countries where the Group's companies carry out their business.

The Group's applicable tax rate corresponds to the average of the theoretical tax rates in force in each of the countries, weighted according to profit obtained in each of these countries.

The average effective tax rate is calculated as follows: (current and deferred income tax expense)/(net profit before tax less share of profit of equity affiliates, dividends received and net profit from discontinued operations).

b. Deferred taxes

Deferred taxes are recognized for all temporary differences between the carrying amount of assets and liabilities and their tax base (excluding non-deductible goodwill and the other exceptions provided in IAS 12), the tax loss carryforwards and the unused tax credits. Deferred tax assets are recognized on all deductible temporary differences provided that it is highly probable that the tax benefits will be realized in future years.

Deferred taxes are calculated at the tax rate applicable when the temporary difference is reversed and allowed under local regulations at the period-end date. The liability method is applied and any changes to the tax rates are recognized in the income statement, except those related to items directly recognized in equity.

Deferred tax assets and liabilities are offset if the entities have a legally enforceable right to offset and if they relate to income tax levied by the same taxation authority. Deferred taxes are not discounted.

Deferred taxes are mainly due to temporary differences between the tax and economic depreciation of assets, the carryforward of tax losses and provisions not immediately deductible for tax purposes, such as employee benefit provisions.

When the Group decides not to distribute profits retained by the subsidiary within the foreseeable future, no deferred tax liability is recognized.

5. NON-CURRENT ASSETS

a. Goodwill and business combinations

Business combinations as of January 1, 2010

The Group has prospectively applied IFRS 3 revised and IAS 27 revised since January 1, 2010.

When the Group obtains control of an acquiree, the business combination is accounted for by applying the acquisition method on the acquisition date, in accordance with IFRS 3 revised:

- the identifiable assets acquired and the liabilities and contingent liabilities assumed are measured at fair value;
- any minority interests in an acquiree are measured as the minority interest's proportionate share of the acquiree's net identifiable assets or at fair value. This option is applied on a case-by-case basis;
- the consideration transferred and any contingent consideration are measured at fair value;
- acquisition-related costs are recorded as other operating expenses in the periods in which they are incurred.

For a business combination achieved in stages, any previously held equity interests in the acquiree are measured at the acquisition-date fair value. Any resulting gains or losses are recognized in profit or loss.

The measurement period of a business combination shall not exceed 12 months as of the acquisition date. Any adjustments, after the measurement period, of the consideration transferred and the fair values of acquired assets and assumed liabilities are recorded in the income statement.

On the acquisition date, goodwill is recognized in the consolidated balance sheet as the difference between:

- the consideration transferred plus the amount of minority interests in the acquiree and the fair value of the previously held equity interest; and,
- the fair value of the identifiable assets acquired and the liabilities and contingent liabilities assumed.

Negative goodwill is recognized immediately through profit or loss.

Goodwill is allocated to cash-generating units (CGUs) or groups of cash-generating units that benefit from business combination synergies. Subsequently, goodwill is not amortized but is tested for impairment annually or more frequently if there are any indications of impairment, in accordance with the method described in section 5.f.

Business combinations prior to January 1, 2010

Business combinations achieved prior to January 1, 2010 have been accounted for in accordance with the former versions of IFRS 3 and IAS 27. These standards had already adopted the acquisition method in the version published by the IASB in March 2004. The main provisions that differed from the revised standards are as follows:

- minority interests were measured based on their share of the net identifiable assets of the acquiree and the fair value measurement option did not exist;
- earn-outs were included in the acquisition cost, without time limits, when the payment was deemed probable and the amount could be reliably measured;
- acquisition-related costs were recorded in the cost of the business combination.

For an acquisition achieved in stages, the fair value remeasurement of any previously held net asset was recognized in equity.

For an acquisition of minority interests in a previously held company, the difference between the acquisition cost and the net carrying amount of the minority interests was recorded in goodwill.

At the time of the transition to IFRS and in accordance with the exemption offered by IFRS 1, the Group decided not to apply IFRS 3 "Business combinations" retrospectively for acquisitions that took place prior to January 1, 2004.

b. Research and Development expenditures

Research and Development expenditures include all costs related to the scientific and technical activities, patent work, education and training necessary to ensure the development, manufacturing, start-up, and commercialization of new or improved products or processes.

According to IAS 38, development costs shall be capitalized if, and only if, the Group can meet all of the following criteria:

- the project is clearly identified and the related costs are itemized and reliably monitored;
- the technical and industrial feasibility of completing the project is demonstrated;
- there is a clear intention to complete the project and to use or sell the intangible asset arising from it;
- the Group has the ability to use or sell the intangible asset arising from the project;
- the Group can demonstrate how the intangible asset will generate probable future economic benefits;
- the Group has adequate technical, financial and other resources to complete the project and to use or sell the intangible asset.

When these conditions are not satisfied, development costs generated by the Group are recognized as an expense when incurred.

Research expenditure is recognized as an expense when incurred.

c. Internally generated intangible assets

Internally generated intangible assets primarily include the development costs of information management systems. These costs are capitalized only if they satisfy the criteria as defined by IAS 38 and described above.

Internal and external development costs on management information systems arising from the development phase are capitalized. Significant maintenance and improvement costs are added to the initial cost of assets if they specifically meet the capitalization criteria.

Internally generated intangible assets are amortized over their useful lives.

d. Other intangible assets

Other intangible assets include separately acquired intangible assets such as software, licenses, and intellectual property rights. They also include the technology, brands and customer contracts valued upon the acquisition of companies in accordance with IFRS 3 "Business Combinations".

With the exception of certain brands, intangible assets are amortized using the straight-line method over their useful lives. Information management systems are generally amortized over a period comprised between five and eight years and customer contracts over a maximum period of 25 years, considering the probabilities of renewal.

e. Property, plant and equipment

Land, buildings and equipment are carried at their acquisition cost less any accumulated depreciation and impairment losses.

In the event of mandatory dismantling or asset removals, related costs are added to the initial cost of the relevant assets and provisions are recognized to cover these costs.

Interest costs on borrowings to finance the construction of property, plant, and equipment are capitalized during the period of construction when they relate to the financing of industrial projects over a twelve-month construction period, or longer.

Where parts of an item of property, plant and equipment have different useful lives, they are accounted separately and depreciated over their own useful lives.

Repair and maintenance costs are recognized as expenses when incurred. The costs of major inspections and overhauls are recognized as a separate component of the asset and are depreciated over the period between two major overhauls.

Depreciation is calculated according to the straight-line method over the estimated useful lives as follows:

- buildings: 20 to 30 years;
- cylinders: 10 to 40 years;
- production units: 15 to 20 years;
- pipelines: 15 to 35 years;
- other equipment: 5 to 30 years.

The estimated useful lives are reviewed regularly and changes in the estimates are recorded prospectively from the date of change.

Land is not depreciated.

f. Impairment of assets

The Group regularly assesses whether there are any indications of asset impairment. If such indications exist, an impairment test is performed to assess whether the carrying amount of the asset is greater than its recoverable amount, defined as the higher of the fair value less costs to sell (net fair value) and the value in use.

Impairment tests are performed systematically once a year for goodwill and intangible assets with indefinite useful lives.

Assets that do not generate largely independent cash flows are grouped according to the cash-generating units (CGUs) to which they belong. A cash-generating unit is an identifiable group of assets that generates cash inflows that are largely independent of the cash inflows of other assets or groups of assets. They are mainly determined on a geographical basis and by reference to the markets in which the Group operates.

In practice, the Group performs impairment tests at various levels pursuant to these principles:

- dedicated and on-site plants are tested individually;
- pipelines and plants that provide these pipelines are tested at the network level;
- liquid gas and hydrogen/CO plants are grouped together according to the plants' customer market;
- other assets are allocated to cash-generating units or groups of cash-generating units.

The cash-generating units of the Gas & Services activities are determined on a geographical basis. The other activities are managed at a worldwide level (Engineering & Construction and Global Markets & Technologies).

Goodwill is allocated to cash-generating units or groups of cash-generating units that benefit from business combination synergies and which represent the levels at which goodwill is monitored by the Group.

When performing impairment tests on cash-generating units or groups of cash-generating units comprising goodwill, the Group uses the market multiples approach. Insofar as the fair value is not significantly greater than the net carrying amount of the cash-generating unit or group of cash-generating units, the Group confirms the recoverable amount of the cash-generating unit or group of cash-generating units using the estimated cash flow approach (value in use).

For other cash-generating units or groups of cash-generating units, and assets whose value is tested on an individual basis, the Group determines the recoverable amount using the estimated cash flow approach (value in use).

The market multiples used are determined based on the market value of the Air Liquide Group. The differences between the resulting multiples and those of comparable companies are not material.

The growth rates, taken into account with respect to the cash flow estimates for cash-generating units or groups of cash-generating units, are determined based on the activity and geographical location of the CGU considered.

In assessing value in use for property, plant and equipment, the estimated future cash flows are discounted to their present value. Cash flows are measured over the asset's estimated period of use, taking into account customer contract terms and technical obsolescence.

The discount rate depends on the nature, the location of the asset and the customer market. It is determined according to the minimum level of profitability expected from the investment considering industrial and commercial risks and credit terms.

When the recoverable amount of an asset, a cash-generating unit or a group of cash-generating units is lower than its carrying amount, an impairment loss is recognized immediately through profit and loss. An impairment loss of a cash-generating unit is first allocated to goodwill.

When the recoverable amount exceeds the carrying amount again, the previously recognized impairment loss is reversed to the income statement, with the exception of impairment losses on goodwill, which cannot be reversed.

g. Leases

In the course of its activity, the Group enters as a lessee in contracts mainly for the following types of assets:

- land, buildings and offices;
- transportation equipment, in particular for Industrial Merchant and Healthcare business lines;
- other equipment.

According to IFRS 16, any contract (apart from exceptions mentioned below) containing a lease leads to recognition on the lessee's balance sheet of a right-of-use of the leased asset and a lease liability related to the present value of the commitments for future lease payments (lease liability).

A contract is, or contains, a lease if it conveys to the Group the right to control the use of an identified asset for a period of time in exchange of consideration. In particular, the Group has concluded that transportation contracts which confer to the supplier the substantive right to substitute the vehicle throughout the period of use and/or the control on the choice of the route, the driver and maintenance policy, are service contracts and do not meet the definition of a lease under IFRS 16.

In addition, the Group has chosen to use the following exemptions and not to apply IFRS 16:

- to the lease contracts having a lease terms of 12 months or less;
- to the lease contracts for which the underlying asset is of low value, in particular, office and telephony equipment, computers and small IT equipment. Lease contracts for data centers are analyzed on a case-by-case basis.

The main assumptions used to measure the right-of-use and the lease liability are:

- lease term. It corresponds to the non-cancellable period for which a lessee has the right to use an underlying asset, together with periods covered by an option to extend or to terminate the lease if the Group is reasonably certain to exercise (for options to extend) or not to exercise (for options to terminate) such options. The probability to exercise or not an option is determined by type of contracts or on a case-by-case basis according to contractual terms, regulatory environment and the nature of the underlying asset (in particular, its technical specificity and strategic location);

- the discount rate used for evaluation of the lease liability. The discount rate retained is the lessee's incremental borrowing rate. Due to the centralized financing in the Group, it corresponds for each subsidiary to the interest rate for intragroup borrowings determined according to the currency of the lease contract, the country and the lease term taking into account the repayment profile (linear amortization of the lease liability).

Deferred taxes relating to the right of use asset and lease liability arising from a single transaction are recognized on a net basis.

6. FINANCIAL INSTRUMENTS

a. Non-current financial instruments

Non-consolidated investments

Investments in non-consolidated companies that are not accounted for using the equity method are classified as assets measured at fair value. These investments are not held for trading, consequently, at initial recognition, the Group may make an irrevocable election to present in other comprehensive income subsequent changes in the fair value. In this case, changes in fair value are not reclassified to net result upon disposal of these investments.

Dividends from these investments are recognized in other financial income.

Loans and other financial assets

Loans and other financial assets are initially recognized at their fair value and subsequently carried at amortized cost. Impairment tests are performed at each closing date. Any impairment losses are recognized immediately in the income statement.

b. Trade and other-receivables

Trade and other receivables are measured at their transaction price upon initial recognition and then at amortized cost less any impairment losses based on expected credit losses model.

Expected credit losses are estimated on the basis of a matrix consisting in using historical loss rates adjusted depending on actual observable conditions. Expected credit losses are estimated at each closing date in the following manner:

- segregating trade receivables into appropriate groups, in particular depending on the activities of the Group, type and size of client and its market segment;
- within each group of trade receivables, determining of age-bands;
- for each age-band identification of losses realized in previous financial year;
- adjusting if necessary historical loss rate depending on actual observable conditions in order to take into account, in particular, current market conditions, type of client, credit management practices of the Group as well as specific information concerning individual customers;
- application of loss rates estimated in this way to each age-band of trade receivables.

For all construction contracts in progress at the year-end, the gross amounts payable by and to customers represent the sum of costs incurred plus profits recognized using the percentage of completion method, equivalent to total revenue recorded using the percentage of completion method, less the amount of advances received.

Amounts payable by customers are presented in trade receivables. Amounts due to customers are presented in other current liabilities.

Assignments of trade receivables

Assignments of trade receivables are derecognized from the balance sheet when:

- the Group transfers the contractual rights to receive the cash flows related to these receivables to the assignee; or
- the Group retains the contractual rights to receive the cash flows related to these receivables, but assumes a contractual obligation to pay the cash flows to the assignee in an arrangement that cumulatively meets the following three conditions:
 - the Group has no obligation to pay to the assignee unless it collects the equivalent amount,
 - the Group is prohibited from selling or pledging the receivables other than as security for the obligation to pay cash flows to the assignee,
 - the Group has an obligation to remit any cash flows it collects on behalf of the assignee without material delay;
- and the Group transfers substantially all the risks and awards of ownership of the receivables, in particular credit risk and risk of late payment.

c. Cash and cash equivalents

Cash and cash equivalents include cash balances, current bank accounts, and short-term highly liquid investments that are readily convertible into cash and which are exposed to a negligible risk of change in value.

Short-term investments include temporary cash investments maturing in less than three months (commercial paper, certificates of deposit and money market funds) whose minimum long-term rating is A (S&P) or A2 (Moody's).

As cash investments maturing in less than three months are exposed to a negligible risk of a change in value, they are recognized at historical cost (including accrued interest) which is considered to approximate fair value.

d. Trade payables

The Group sets up supplier paying services agreements with partner banks to facilitate the processing of supplier invoices payments. The Group analyzes the main contract features that enable to keep the trade payables qualification. In particular, the Group ensures that the following characteristics are met:

- no deviation of the payment terms of the underlying payable between the financing party and the original supplier. In other words, the Group must pay to the bank no later than the payment term of invoice;
- payment terms negotiations between Air Liquide and supplier must be conducted independently of any negotiation on paying service agreement. In particular, payment terms shall not be subject to the supplier's success in selling invoices to the bank;
- the terms of contract with the supplier shall not be explicitly linked to any payment term extension. Payment term with a particular supplier must be homogenous, independently of the participation of a particular invoice in the program or not;

- payment terms should stay within the ordinary industry/sector norms and local regulation, and should not be tied to the participation in the paying services agreement;
- program structures should avoid debt-like features such as interest and fees paid by Air Liquide to the bank or supplier;
- tri-party agreements between Air Liquide, the supplier and the bank that pre-arrange the financing of the invoices owed by Air Liquide to the supplier shall be avoided.

e. Current and non-current borrowings

Borrowings include bonds and other bank borrowings (including the put options granted to minority shareholders).

At inception, borrowings are recognized at fair value corresponding to the net proceeds collected. At each balance sheet date, except for put options granted to minority shareholders (see section 10 "Minority Interests"), they are measured at amortized cost using the effective interest rate (EIR) method. Under this method, the borrowing cost includes the redemption premiums and issuance costs initially deducted from the nominal amount of the borrowing in liabilities.

Borrowings maturing in less than one year are classified as current borrowings.

Borrowings hedged by interest rate swaps are recognized on a hedge accounting basis.

f. Derivative assets and liabilities

Derivative financial instruments are used to manage exposures to foreign exchange, interest rate and commodity risks relating to the Group's financial and operating activities. For all these transactions, the Group applies hedge accounting and documents, at the inception of the transaction, the type of hedging relationship, the hedging instruments, and the nature and term of the hedged item.

Applying hedge accounting has the following consequences:

- fair value hedges for existing assets and liabilities: the hedged portion of the item is carried at fair value in the balance sheet. Any changes in fair value are recognized in the income statement, where they are offset by the corresponding changes in fair value of the hedging instruments (except for the impact of premiums/discounts);
- future cash flow hedges: the effective portion of the change in fair value of the hedging instrument is recorded directly in equity (items that may be subsequently reclassified to income statement), while the change in the fair value of the hedged item is not recognized in the balance sheet. The change in fair value of the ineffective portion is recognized in other financial income or expenses. When the hedged transactions occur and are recorded, amounts recorded in other comprehensive income are reclassified in the income statement;

- hedges of net investments in a foreign entity: the effective portion of the changes in fair value of the derivative instrument is recognized in gains and losses recognized directly in equity under "Translation reserves". The ineffective portion of changes in fair value is recognized in "Other financial income and expenses". Once the foreign entity subject to the net investment hedge is sold, the loss or profit initially recognized in translation reserves is recognized in profit or loss, within the gain or loss generated.

However, in limited circumstances, certain types of derivatives do not qualify for hedge accounting; they are carried at fair value through "Other financial income and expenses" with an offsetting entry in financial assets and financial liabilities.

The fair value of assets, liabilities and derivatives is based on the market price at the balance sheet date.

7. ASSETS HELD FOR SALE AND DISCONTINUED OPERATIONS

a. Assets classified as held for sale

Non-current assets or disposal groups are classified as held for sale if their carrying amount will be recovered principally through a sale transaction rather than through continuing use. This classification occurs when the Group takes the decision to sell them and that the sale is considered highly probable.

The assets and liabilities held for sale are presented on different lines of the balance sheet. They are measured at the lower of their carrying amount or fair value less costs to sell. Assets classified as held for sale are no longer depreciated (amortized) as of the date they are classified as assets or disposal groups held for sale.

When a sale involving the loss of control of the subsidiary is considered highly probable, all the assets and liabilities of this subsidiary are classified as being held for sale, independently of whether or not the Group retains a residual interest in the entity after its sale.

b. Discontinued operations

A discontinued operation is a clearly identifiable component that the Group either has abandoned or that is classified as held for sale:

- representing a separate major line of business or geographical area of operations;
- being part of a single coordinated plan to dispose of a separate major line of business or geographical area of operations; or,
- being a subsidiary acquired exclusively with a view to resale.

Once the criteria are met, the profit and loss and the cash flow from discontinued operations are presented separately in the income statement and the consolidated cash flow statement for each period.

8. INVENTORIES AND WORK-IN-PROGRESS

Inventories are measured at the lower of cost or net realizable value. Cost includes raw materials, direct and indirect labor costs and other costs incurred in bringing the inventories to their present location and condition.

Net realizable value is the estimated selling price in the normal course of business less the estimated costs of completion and the estimated costs necessary to make the sale.

9. SHARE CAPITAL, RESERVES AND TREASURY SHARES

Air Liquide's share capital is composed of ordinary shares.

Retained earnings include the following items:

- translation reserves: exchange differences arising from the translation into euros of financial statements prepared by foreign subsidiaries whose functional currency is not the euro are recorded in translation reserves. Fair value changes in net investment hedges of these foreign subsidiaries are also recorded in this reserve;
- fair value of financial instruments: this item records accumulated fair value changes in the effective portion of cash flow hedge derivatives (transactions not yet recognized in the accounts);
- actuarial gains and losses: all actuarial gains and losses and adjustments arising from the asset ceiling, net of deferred taxes, are recognized in consolidated reserves in the period in which they occur.

When the Group buys back its own shares, they are classified as treasury shares at the purchase price and presented as a deduction from equity for the consideration paid. The profit or loss from the sale of treasury shares is recognized directly in equity, net of tax.

Furthermore, acquisitions or disposals of minority interests, without change in control, are considered as transactions with the Group's shareholders. Thus, the difference between the price paid to increase the percentage of interest in entities that are already controlled and the additional share of equity thus acquired is recognized in Shareholders' equity. Similarly, a decrease in the Group's percentage interest in a controlled entity is accounted for as an equity transaction with no impact on profit or loss.

Disposals of shares with loss of control give rise to the recognition in disposal gains or losses of the change in fair value calculated for the total investment at the date of disposal. Any investments retained, where applicable, will be measured at fair value at the date when control is lost.

10. MINORITY INTERESTS

Transactions with minority interests, without impact on the control, are considered as transactions with the Group's shareholders and are registered in shareholders' equity.

In accordance with IAS 32, put options granted to minority shareholders are recorded as borrowings at the option's estimated strike price.

The share in the net assets of subsidiaries is reclassified from "Minority interests" to "Borrowings".

Due to the absence of any specific IFRS guidance, the Group has elected to recognize the consideration for the difference between the strike price of the option granted and the value of the minority interests reclassified as borrowings in shareholders' equity – Group share.

Minority interests in profit and loss do not change and still reflect present ownership interests.

11. PROVISIONS

a. Provisions

Provisions are recognized when:

- the Group has a present obligation as a result of a past event;
- it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation;
- a reliable estimate can be made of the amount of the obligation.

Restructuring provisions include only the direct costs arising from the restructuring and are recognized in the period in which the Group has approved a detailed and formal restructuring plan and the restructuring has either begun or been announced. When these plans involve termination benefits, the resulting provisions are recognized at the earlier of the following dates:

- when the Group can no longer withdraw the offer of those benefits;
- when the provision of the related restructuring is recognized.

A provision for losses on contracts is recognized when the expected benefits from the contract are lower than the cost of satisfying the obligations under the contract.

b. Pensions and employee benefits

The Group provides its employees with various pension plans, termination benefits, jubilees and other post-employment benefits for both active and retired employees. The characteristics of each plan vary according to the laws and regulations applicable in each country as well as each subsidiary policy.

These benefits are covered by two types of plan:

- defined contribution plans;
- defined benefit plans.

The Group grants both defined benefit and defined contribution plans.

Defined contribution plans are plans under which the employer's sole obligation is to pay regular contributions. The employer's obligation is limited to payment of the planned contributions. The employer does not grant any guarantees on the future level of benefits paid to the employee or retiree (means-based obligation). The annual pension expense is equal to the contribution paid during the fiscal year which relieves the employer from any further obligation. It is recognized in "Personnel expenses".

Defined benefit plans are those by which the employer guarantees the future level of benefits defined in the agreement, most often depending on the employee's salary and seniority ("result-based obligation"). Defined benefit plans can be:

- either financed by contributions to a fund specialized in managing the amounts received;
- or managed internally.

In the case of defined benefit plans, retirement and similar obligations are measured by independent actuaries, according to the projected unit credit method. The actuarial calculations mainly take into account the following assumptions: salary increases, employee turnover, retirement date, life expectancy, inflation and appropriate discount rates for each country.

Defined benefit plans are covered by external pension funds in certain cases. The assets of these plans are mostly invested in bonds or equities carried at their fair value.

All actuarial gains and losses as well as any adjustment arising from the asset ceiling are recognized in the period in which they occur.

Actuarial assumptions used vary according to the demographic and economic conditions prevailing in each country where the Group has pension plans.

Discount rates used to measure the present value of the Company's obligations and the net interest cost are determined by reference to market yields on High-Quality corporate bonds. Where there is no deep market in such bonds, the market yields on government bonds with the same maturity at the valuation date shall be used. In the Euro zone, the United States, the United Kingdom and Canada, discount rates were determined using tools designed by independent actuaries. Their database uses several hundred different corporate bonds with a minimum AA-rating and maturities ranging from one to 30 years. Cash flows of expected benefits are subsequently discounted using rates associated to each maturity.

Valuations are carried out annually by independent actuaries for significant plans and every three years for other plans unless there are material changes in assumptions or major events that necessitate a new calculation. Impacts related to defined benefit plans are registered as follows:

- the service cost, the gain relating to curtailments and settlements, and the actuarial gains and losses from other long-term benefits and recognized in "Personnel expenses". In addition, the service cost of defined benefit plans which are capped, linked to length of service and require the presence of the beneficiary in the company at the time of retirement is spread over the period between the date on which the services rendered began to generate rights and the date on which the additional services cease to generate rights;
- net interest cost for defined benefits is registered in "Other financial income and expenses";
- past service cost is recorded in profit or loss according to the nature of the change to the plan that generated it (i.e. either in "Personnel expenses" or in "Other operating income and expenses");
- actuarial gains and losses from defined benefit plans, retirement termination payments, and medical plans are recorded in "Gains and losses recognized directly in equity".

12. FOREIGN CURRENCY TRANSACTIONS AND BALANCES

Foreign currency transactions are recognized according to the following principles:

- foreign currency transactions are translated by each company into its functional currency at the exchange rate prevailing on the date of the transaction;
- at year-end, monetary assets and liabilities denominated in foreign currencies are translated into the functional currency at the closing exchange rate.

Exchange differences relating to commercial transactions are recognized in operating profit. For financial transactions, exchange differences are recognized in financial income and expenses except for differences resulting from the hedge of a net investment in a foreign entity that are directly recognized in equity until the net investment is removed from the consolidation scope.

13. CONTINGENT ASSETS AND LIABILITIES

Contingent assets and liabilities arise from past events, the outcome of which depends on future uncertain events.

Contingent liabilities represent:

- possible obligations arising from past events whose existence will be confirmed only by the occurrence of uncertain future events not wholly within the control of the entity; or,
- present obligations that arise from past events, but that are not recognized because it is not probable that an outflow of resources embodying economic benefits will be required to settle the obligation or because the amount of the obligation cannot be measured with sufficient reliability.

Contingent assets and liabilities that are material are disclosed in the notes to the Consolidated Financial Statements, except for contingent liabilities assumed in a business combination, which are recognized in accordance with IFRS 3 revised.

14. GOVERNMENT GRANTS

Government grants received are initially recognized in "Other non-current liabilities". They are then recognized as income in the income statement for the period:

- on the same basis as the subsidized assets are depreciated in the case of government grants related to assets;
- deducted from the costs intended to be compensated in the case of government grants other than those related to assets.

The Group analyzes the substance of government incentives delivered through the tax system and selects an accounting treatment consistent with such substance.

15. SHARE-BASED PAYMENTS

The Group grants stock options and performance shares to Executive Officers and some employees.

Stock options and performance shares are measured at fair value on the grant date. Their fair value is recognized as a "Personnel expense" in the income statement with a corresponding increase in equity, and amortized on a straight-line basis over the vesting period.

The valuation is performed by an independent expert, using mathematical models appropriate to the characteristics of each plan. It takes into account the market vesting conditions associated to each one. The fair value measured at the grant date is not subject to re-evaluation due to changes in market conditions.

Vesting conditions, other than market ones, have no impact on the fair value measurement of services received but adjust the expense that is recognized according to the number of equity instruments actually granted.

The dilution effect of non-vested stock option plans and performance share allocations is reflected in the calculation of diluted earnings per share.

Share subscription option plans

Options are valued using the following main underlying assumptions:

- volatility: implicit;
- risk-free interest rate: zero-coupon benchmark rate at the plan issue date and matching the various maturities retained;
- dividend growth rate: based on the historical average annual growth rate;
- employee resignation rate: that of individuals belonging to the same age group as the plan beneficiaries. The resignation rate is used to extrapolate the number of options which will not be exercised due to the resignation of beneficiaries;
- the probability of achieving the market vesting conditions.

Performance shares allocation plans

Performance shares are measured at fair value, taking into account a discount on non-transferable shares. The cost of non-transferability is measured as the cost of a two-step strategy consisting in the forward sale of shares being non-transferable for four years (or five years depending on the plan) and the purchase on the spot market of the same number of shares funded by an amortizable loan with an in fine capital repayment.

Valuation is based upon the following main underlying assumptions:

- risk-free interest rate: four-year zero-coupon benchmark rate (or five-year depending on the plan) at the plan issue date plus a credit margin that would be proposed to employees;
- dividend growth rate: based on the historical average annual growth rate;
- employee resignation rate: that of individuals belonging to the same age group as the plan beneficiaries. This resignation rate is used to extrapolate the shares which will not be allocated due to the resignation of beneficiaries;
- the probability of achieving the market vesting conditions.

16. GREENHOUSE GAS EMISSION QUOTAS

In certain countries, the Group is subject to greenhouse gas emission quota systems.

In the absence of any specific IFRS guidance, the Group has elected to apply the ANC Regulation No. 2014-03. The Group does not buy CO₂ quotas for the purpose of generating profits from fluctuations in price; therefore, at each closing date:

- a liability is recognized if the greenhouse gas emissions are higher than the CO₂ quotas held by the Group. It corresponds to the cost of CO₂ quotas in shortfall to cover the greenhouse gas already emitted; or,
- an asset is recognized if the greenhouse gas emissions are lower than the CO₂ quotas held by the entity. It corresponds to the CO₂ quotas available to cover the future greenhouse gas emissions, valued at historical cost.

Basis for presentation of financial information

1. SEGMENT INFORMATION

The Group is structured according to the following activities: Gas & Services, Engineering & Construction and Global Markets & Technologies.

The Group's main operational decision-making body is the Executive Management assisted by the Executive Committee.

The Gas & Services activities are organized by geographical area, which is the responsible level for operations management and performance monitoring. These geographical areas are as follows:

- Europe;
- Americas;
- Asia Pacific;
- Middle East & Africa.

Within the Gas & Services segment, the geographical areas determine sales policies and development projects in liaison with the four business lines (Large Industries, Industrial Merchant, Healthcare and Electronics).

The Engineering & Construction segment is managed separately on a worldwide scale. The segment designs, develops and builds industrial gas production plants for the Group and third parties. It also designs and manufactures plants in the traditional, renewable and alternative energy sectors.

The Global Markets & Technologies segment is also managed separately on a worldwide scale. It focuses on new markets which require a global approach, drawing on science, technologies, development models, and usages related to digital transformation.

Research and Development and corporate activities do not meet the operating segments definition and are thus presented within reconciliation.

The information communicated in the tables covering segment information is presented according to the same accounting principles as those used for the Group Consolidated Financial Statements.

Revenue is analyzed by geographical area of production (country of origin).

Inter-segment revenue between Gas & Services, Engineering & Construction and Global Markets & Technologies activities corresponds to the sales between these operating segments.

The Group operating performance is assessed on the basis of each segment's Operating income recurring.

Segment assets include non-current assets, with the exception of "Deferred tax assets", "Investments in associates", "Fair value of non-current derivatives (assets)", as well as "Inventories and work-in-progress", "Trade receivables" and "Other current assets".

Segment liabilities correspond to "Provisions, pensions and other employee benefits", "Trade payables", "Other current liabilities" and "Other non-current liabilities".

Segment profits, assets and liabilities consist of amounts directly attributable to each segment, provided they can be allocated to the segment on a reasonable basis.

2. NET DEBT

The net debt includes:

- current and non-current borrowings, as defined in section 6.e of accounting policies, minus the fair value of hedging derivative assets to cover borrowings;

reduced by:

- cash and cash equivalents, as defined in section 6.c of accounting policies, minus the fair value of hedging derivative instruments recorded in liabilities to cover loans.

The net debt does not include the lease liabilities as defined in section 5.g of accounting policies.

3. INFORMATION ON INTERESTS IN JOINT ARRANGEMENTS OR ASSOCIATES

The materiality of the interests in joint arrangements or associates is assessed according to the following criteria:

- contribution of the entity to the Group's Operating income recurring;
- share of these interests in the Group's net assets;
- dividends paid to these interests.

4. INFORMATION ON MINORITY INTERESTS

The materiality of the minority interests is assessed according to an analysis of:

- the minority interests' share in the Group's net assets;
- the contribution to the Group's Operating income recurring of the subsidiary having minority interests;
- dividends paid to minority interests.

5. OPERATING INCOME RECURRING

The Group's operating performance is measured based on Operating income or loss recurring determined in accordance with ANC recommendation No. 2020-01.

6. OTHER NON-RECURRING OPERATING INCOME AND EXPENSES

Material non-recurring operations that could affect operating performance readability are classified under "Other non-recurring operating income" and "Other non-recurring operating expenses". They may include:

- gains or losses on the disposal of activities or groups of assets;
- acquisition-related and integration-related costs relating to business combinations;
- restructuring costs resulting from plans whose unusual and material nature distort the readability of the Operating income recurring;
- significant provisions and impairment losses for property, plant and equipment and intangible assets;
- incurred or estimated costs relating to significant political risks or litigations.

7. NET EARNINGS PER SHARE

a. Basic earnings per share

Basic earnings per share is calculated by dividing net profit (Group share) attributable to ordinary shareholders of Air Liquide by the weighted average number of shares outstanding during the year, excluding ordinary shares purchased by Air Liquide and recognized in equity.

b. Diluted earnings per share

Diluted earnings per share take into account share subscription options and performance shares allocated to employees and Executive Officers if:

- the issue price, adjusted for unrecognized expenses at the year-end pursuant to IFRS 2, is lower than the Air Liquide annual average share price;
- the performance requirements meet the criteria set out in IAS 33 § 52.

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Note 1 Significant events

A military conflict between Russia and Ukraine broke out on February 24, 2022. Air Liquide's presence in Ukraine was limited to a commercial office and engineering services office for the Engineering & Construction activity. In Russia, the Group mainly operated in the Large Industries, Industrial Merchant and Healthcare business lines. The revenue realized in Russia represented less than 1% of the Group's consolidated revenue in 2021.

As of June 30, 2022, in view of the very uncertain geopolitical context, the series of successive sanctions and counter-sanctions and restrictions in terms of cash movements between Russia and Europe, the Group determined that indications of impairment existed for the assets held in Russia that required to carry out an impairment test. As a result, a provision of 404 million euros on these assets was recognized in Other non-recurring operating expenses, with no impact on cash, as well as the costs of unwinding hedges and mothballing certain projects in the amount of 15 million euros.

On September 2, 2022, Air Liquide confirmed its intention to withdraw from Russia. Taking a responsible and orderly approach, the Group signed a Memorandum of Understanding with the local management team with the objective to transfer its activities in

Russia in a framework of an MBO (Management Buy Out). This project is notably subject to Russian regulatory approvals.

Furthermore, as a consequence of the evolution of the geopolitical context and increased sanctions and counter-sanctions, the Group updated its analysis of the control it holds over activities in Russia and considered that it no longer satisfied the conditions of control as defined by IFRS 10 "Consolidated Financial Statements" and described in section 1.a of the accounting principles and methods in the appendix to the Consolidated Financial Statements. As a result, the Group's activities in Russia are no more consolidated since September 1, 2022. The corresponding shares are now recognized as non-consolidated investments, with an estimated fair value of zero given the specific context.

The total impact for the Group amounts to 586 million euros over the 2022 financial year, recognized in Other non-recurring operating expenses, and corresponds mainly to the provision for impairment, the impairment of non-consolidated investments and financial receivables that the Group holds with these Russian entities.

Note 2 Segment information

2.1. INCOME STATEMENT FOR THE YEAR ENDED DECEMBER 31, 2022

<i>(in millions of euros)</i>	Gas & Services					Engineering & Construction	Global Markets & Technologies	Reconciliation	Total
	Europe	Americas	Asia Pacific	Middle East and Africa	Sub-total				
Revenue	11,390.4	10,680.0	5,608.1	894.5	28,573.0	474.0	887.0		29,934.0
<i>Inter-segment revenue</i>						600.8	650.2	(1,251.0)	
Operating income recurring	1,576.6	2,084.2	1,189.8	211.0	5,061.6	43.8	111.9	(355.5)	4,861.8
<i>incl. depreciation and amortization</i>	(745.3)	(956.8)	(508.1)	(112.7)	(2,322.9)	(24.9)	(74.1)	(44.0)	(2,465.9)
Other non-recurring operating income									262.4
Other non-recurring operating expenses									(833.1)
Net finance costs									(288.4)
Other financial income									32.4
Other financial expenses									(130.0)
Income taxes									(1,002.3)
Share of profit of equity affiliates									1.1
Profit for the period									2,903.9
Purchase of property, plant and equipment and intangible assets	(996.0)	(978.0)	(866.4)	(158.6)	(2,999.0)	(34.5)	(181.8)	(57.7)	(3,273.0)

The Research and Development and Holdings activities (corporate) are presented in the "Reconciliation" column.

2.2. INCOME STATEMENT FOR THE YEAR ENDED DECEMBER 31, 2021

<i>(in millions of euros)</i>	Gas & Services					Engineering & Construction	Global Markets & Technologies	Reconciliation	Total
	Europe	Americas	Asia Pacific	Middle East and Africa	Sub-total				
Revenue	8,314.8	8,444.8	4,790.7	717.0	22,267.3	386.7	680.8		23,334.8
<i>Inter-segment revenue</i>						426.4	537.8	(964.2)	
Operating income recurring	1,444.0	1,694.0	1,065.8	158.3	4,362.1	42.4	96.5	(340.6)	4,160.3
<i>incl. depreciation and amortization</i>	(690.6)	(832.7)	(440.0)	(87.2)	(2,050.5)	(23.2)	(59.0)	(39.8)	(2,172.5)
Other non-recurring operating income									8.3
Other non-recurring operating expenses									(159.0)
Net finance costs									(280.0)
Other financial income									3.6
Other financial expenses									(131.9)
Income taxes									(914.8)
Share of profit of equity affiliates									5.4
Profit for the period									2,691.9
Purchase of property, plant and equipment and intangible assets	(899.5)	(908.4)	(755.3)	(59.8)	(2,623.0)	(19.6)	(247.3)	(26.9)	(2,916.8)

2.3. BALANCE SHEET AS OF DECEMBER 31, 2022

(in millions of euros)	Gas & Services					Engineering & Construction	Global Markets & Reconciliation		Total
	Europe	Americas	Asia Pacific	Middle East and Africa	Sub-total		Technologies		
Segment assets	11,271.3	21,754.7	8,536.4	1,847.4	43,409.8	738.5	2,220.0	434.0	46,802.3
Goodwill	3,142.9	9,476.4	1,421.5	158.3	14,199.1	251.3	136.8		14,587.2
Intangible assets and property, plant and equipment, net	5,937.3	10,736.6	5,715.1	1,424.6	23,813.6	217.1	1,060.4	367.2	25,458.3
Other segment assets	2,191.1	1,541.7	1,399.8	264.5	5,397.1	270.1	1,022.8	66.8	6,756.8
Non-segment assets									2,674.0
Assets held for sale									41.7
Total assets									49,518.0
Segment liabilities	3,120.6	1,844.1	1,115.0	313.3	6,393.0	1,118.7	629.6	448.2	8,589.5
Non-segment liabilities									16,341.1
Equity including minority interests									24,572.0
Liabilities held for sale									15.4
Total equity and liabilities									49,518.0

2.4. BALANCE SHEET AS OF DECEMBER 31, 2021

(in millions of euros)	Gas & services					Engineering & Construction	Global Markets & Reconciliation		Total
	Europe	Americas	Asia Pacific	Middle East and Africa	Sub-total		Technologies		
Segment assets	11,285.6	20,220.9	7,552.6	1,787.4	40,846.5	671.1	1,963.7	330.2	43,811.5
Goodwill	3,133.9	8,937.4	1,388.6	151.0	13,610.9	243.1	138.3		13,992.3
Intangible assets and property, plant and equipment, net	6,104.4	9,996.3	5,004.2	1,391.9	22,496.8	211.7	1,001.1	274.5	23,984.1
Other segment assets	2,047.3	1,287.2	1,159.8	244.5	4,738.8	216.3	824.3	55.7	5,835.1
Non-segment assets									2,887.7
Assets held for sale									83.9
Total assets									46,783.1
Segment liabilities	3,144.2	1,697.3	1,055.2	260.0	6,156.7	1,088.3	561.7	473.7	8,280.4
Non-segment liabilities									16,466.8
Equity including minority interests									21,998.8
Liabilities held for sale									37.1
Total equity and liabilities									46,783.1

2.5. OTHER INFORMATION ON GEOGRAPHICAL AREAS

2022 (in millions of euros)	France	Europe excl. France	United States	Americas excl. United States	Asia Pacific	Middle East and Africa	Total
Revenue	3,601.9	8,834.0	9,235.4	1,652.4	5,713.7	896.6	29,934.0
Non-current assets ^(a) incl. Investments in equity affiliates	3,146.0	7,135.1	19,102.9	1,783.6	7,322.3	1,741.3	40,231.2
	28.7	23.1	3.5		30.9	99.5	185.7

(a) Excluding non-current financial assets, deferred taxes and non-current derivative assets.

2021 (in millions of euros)	France	Europe excl. France	United States	Americas excl. United States	Asia Pacific	Middle East and Africa	Total
Revenue	3,044.5	6,062.1	7,224.6	1,358.4	4,924.9	720.3	23,334.8
Non-current assets ^(a) incl. Investments in equity affiliates	2,878.9	7,477.0	17,736.9	1,785.8	6,552.9	1,702.9	38,134.4
	3.4	26.5	3.3		29.4	95.4	158.0

(a) Excluding non-current financial assets, deferred taxes and non-current derivative assets.

Due to the substantial number of customers served by the Group (more than two million worldwide), to their significant diversity in multiple sectors and to their wide geographical dispersion, the Group's main customer represents only 2.2% of Air Liquide's revenue.

Note 3 Revenue

In 2022, consolidated revenue amounted to 29,934.0 million euros, up 28.3% compared to 2021.

3.1. REVENUE BY GEOGRAPHY AND BUSINESS LINE FOR THE YEAR ENDED DECEMBER 31, 2022

(in millions of euros)	Europe	Americas	Asia Pacific	Middle East and Africa	Total
Industrial Merchant	2,832.2	6,939.3	1,521.6	275.0	11,568.1
Large Industries	5,715.3	2,221.3	2,021.1	566.7	10,524.4
Healthcare	2,654.4	1,024.6	191.7	52.8	3,923.5
Electronics	188.5	494.8	1,873.7	—	2,557.0
Gas & Services Revenue	11,390.4	10,680.0	5,608.1	894.5	28,573.0
Engineering & Construction					474.0
Global Markets & Technologies					887.0
TOTAL REVENUE					29,934.0

3.2. REVENUE BY GEOGRAPHY AND BUSINESS LINE FOR THE YEAR ENDED DECEMBER 31, 2021

(in millions of euros)	Europe	Americas	Asia Pacific	Middle East and Africa	Total
Industrial Merchant	2,321.5	5,482.3	1,403.8	279.6	9,487.2
Large Industries	3,303.9	1,637.2	1,658.5	378.3	6,977.9
Healthcare	2,544.6	909.6	192.3	59.1	3,705.6
Electronics	144.8	415.7	1,536.1	—	2,096.6
Gas & Services Revenue	8,314.8	8,444.8	4,790.7	717.0	22,267.3
Engineering & Construction					386.7
Global Markets & Technologies					680.8
TOTAL REVENUE					23,334.8

Note 4 Operating income recurring and expenses

Operating income recurring and expenses include purchases, personnel expenses, depreciation and amortization, other recurring income and other recurring expenses.

The Group purchases mainly consist of electricity, natural gas as well as industrial and medical products.

4.1. OTHER INCOME

Other income is primarily made up of net proceeds from the sale of property, plant, and equipment and intangible assets and various indemnities.

4.2. PERSONNEL EXPENSES

<i>(en millions d'euros)</i>	2021	2022
Wages and social security charges	(4,192.6)	(4,790.0)
Defined contribution pension plans	(88.5)	(105.4)
Defined benefit plans	(41.3)	(31.1)
Share-based payments	(40.5)	(36.9)
TOTAL	(4,362.9)	(4,963.4)

Fully consolidated companies employed 67,109 individuals as of December 31, 2022 (66,436 individuals as of December 31, 2021).

4.3. OTHER OPERATING EXPENSES

Other operating expenses primarily include transport, maintenance, distribution costs and sub-contracting costs.

The operating leases costs included in other operating expenses are not significant and correspond to the contracts that do not fall within the scope of IFRS 16 (cf. paragraph 5.g. of the Accounting principles).

4.4. RESEARCH AND DEVELOPMENT EXPENDITURES

In 2022, innovation costs amounted to 308 million euros (304 million euros in 2021) including Research and Development costs of 199 million euros (183 million euros in 2021).

4.5. DEPRECIATION AND AMORTIZATION EXPENSES

<i>(in millions of euros)</i>	2021	2022
Intangible assets	(172.6)	(203.8)
Property, plant and equipment ^(a)	(1,999.9)	(2,262.1)
TOTAL	(2,172.5)	(2,465.9)

(a) Including the depreciation expense after deduction of investment grants released to profit.

Note 5 Other non-recurring operating income and expenses

<i>(in millions of euros)</i>	2021	2022
Income		
Impact of financial transactions related to the scope of consolidation	8.3	206.5
Political risks and legal procedures	—	55.9
TOTAL OTHER NON-RECURRING OPERATING INCOME	8.3	262.4
Expenses		
Reorganization, restructuring and realignment programs costs	(62.2)	(71.8)
Acquisition costs	(9.6)	(7.9)
Political risks and legal procedures	(49.3)	(51.2)
Net loss on the disposals of activities or group of assets and impairments of assets	(26.0)	(83.4)
Impact of military conflict between Russia and Ukraine	—	(586.4)
Others	(11.9)	(32.4)
TOTAL OTHER NON-RECURRING OPERATING EXPENSES	(159.0)	(833.1)
TOTAL	(150.7)	(570.7)

In 2022, the Group recognized:

- an impact on financial transactions amounting to 206.5 million euros mainly corresponding to Air Liquide taking control of an existing 50/50 Joint Venture in Asia Pacific on January 11, 2022, and reevaluated at fair market value for 205.5 million euros;
- restructuring costs corresponding to realignment programs primarily in Gas & Services activities;
- Incomes and expenses related to political risks and legal procedures, including a 47.7 million euros provision for risk in Engineering & Construction and a 31.9 million euros reversal of reserve initially set up to cover the risk of being requested to refund the equalization charge reimbursed to L'Air Liquide S.A in 2020. This reversal follows favorable conclusions released by the European Court of Justice on May 12, 2022;
- an impact of 586 million euros regarding the military conflict between Russia and Ukraine corresponding mainly to the provision for impairment, the impairment of non-consolidated investments and financial receivables that the Group holds with these Russian entities.

In 2021, the Group recognized:

- capital gains on disposal amounting to +8.3 million euros mainly linked to the disposal of its activities in Greece in the first half of 2021 for a capital gain on disposal of +15.4 million euros;
- restructuring costs corresponding to realignment programs mainly within the activities Gas & Services;
- acquisition costs mainly related to the purchase of oxygen production units of Sasol;
- legal procedure costs including a 31.9 million euros reserve to cover the risk of being requested to refund the equalization charge reimbursed to L'Air Liquide S.A. in July 2020. This reserve follows unfavorable conclusions released by the Advocate General on October 14th 2021 regarding a legal question referred to the European Court of Justice in October 2020.

Note 6 Net finance costs and other financial income and expenses

6.1. NET FINANCE COSTS

<i>(in millions of euros)</i>	2021	2022
Gross finance costs	(292.2)	(321.4)
Financial income from short-term investments and loans	12.2	33.0
TOTAL	(280.0)	(288.4)

The average net finance cost, excluding capitalized finance costs of +49.4 million euros (+36.4 million euros in 2021) and excluding the non-recurring cost (note 24), stood at 3.0% in 2022 slightly increasing compared to 2021.

6.2. OTHER FINANCIAL INCOME AND EXPENSES

<i>(in millions of euros)</i>	2021	2022
Other financial income	3.6	32.4
TOTAL OTHER FINANCIAL INCOME	3.6	32.4
Other financial expenses	(90.2)	(85.2)
Interest expense on the net defined benefit liability	(6.2)	(9.2)
Interest on lease liabilities	(35.5)	(35.6)
TOTAL OTHER FINANCIAL EXPENSES	(131.9)	(130.0)

The increase in other financial income is mainly due to interest on arrears provision reversal regarding the risk on the equalization charge refund for +€24.9 million euros. As a reminder, 2021 included an interest on arrears allowance related to the risk on the equalization charge refund for -€24.9 million euros (Note 5).

Note 7 Income taxes

7.1. INCOME TAX EXPENSE

<i>(in millions of euros)</i>	2021	2022
Income tax expense payable	(801.4)	(899.8)
TOTAL CURRENT TAX	(801.4)	(899.8)
Temporary differences	(110.9)	(102.5)
Impact of tax rate changes	(2.5)	0.0
TOTAL DEFERRED TAX	(113.4)	(102.5)
TOTAL	(914.8)	(1,002.3)

7.2. RECONCILIATION BETWEEN THE STANDARD TAX RATE AND THE GROUP EFFECTIVE TAX RATE

<i>(in %)</i>	2021	2022
Standard tax rate	25.3	25.0
Impact of transactions taxed at reduced rates	(2.4)	(2.5)
Impact of tax rate changes	0.1	—
Impact of tax exemptions and others	2.4	3.2
Average effective tax rate	25.4	25.7

The increase in average effective tax rate compared to 2021 is mainly due to the non-deductible provision booked on Russian assets (Note1), partially compensated by the non taxable income following the control taken by the Group on an existing Joint Venture in Asia Pacific (Note 5).

In France, L'Air Liquide S.A. has elected to determine French income taxes on a consolidated basis. This scheme applies to all French subsidiaries complying with the legal requirements.

Foreign subsidiaries have elected to apply for similar rules wherever this is allowed under local regulations.

Note 8 Net earnings per share

8.1. BASIC EARNINGS PER SHARE

	2021	2022
Net profit (Group share) attributable to ordinary shareholders of the parent <i>(in millions of euros)</i>	2,572.2	2,758.8
Weighted average number of ordinary shares outstanding	520,828,581	522,069,020
BASIC EARNINGS PER SHARE <i>(in euros)</i>	4.94	5.28

The average number of outstanding ordinary shares and net earnings per share for December 31, 2021 include the impact of the free share attribution performed by L' Air Liquide S.A. on June 8, 2022.

8.2. DILUTED EARNINGS PER SHARE

	2021	2022
Net profit used to calculate diluted earnings per share <i>(in millions of euros)</i>	2,572.2	2,758.8
Weighted average number of ordinary shares outstanding	520,828,581	522,069,020
Adjustment for dilutive impact of share subscription options	1,085,422	689,503
Adjustment for dilutive impact of performance shares	1,198,193	1,166,620
Adjusted weighted average number of shares outstanding used to calculate diluted earnings per share	523,112,196	523,925,143
DILUTED EARNINGS PER SHARE <i>(in euros)</i>	4.92	5.27

All instruments that could dilute net profit – Group share, are included in the calculation of diluted earnings per share.

The Group has not issued any other financial instruments that may result in further dilution of net earnings per share.

Note 9 Dividend per share

The 2021 dividend on ordinary shares declared and paid on May 16, 2022 to the Group Shareholders was 1,412.0 million euros (including fidelity premium) and amounted to 2.90 euros per share and a fidelity premium of 0.29 euro per share.

A dividend payment of 2.95 euros per ordinary share and a fidelity premium of 0.29 euros per share amounting to 1,587.4 million euros (estimated amount taking into account share buybacks and cancellations) will be proposed to the Annual General Meeting in respect of the financial year ended December 31, 2022.

Note 10 Goodwill

10.1. MOVEMENTS DURING THE PERIOD

(in millions of euros)	As of January 1	Goodwill recognized during the period	Goodwill removed during the period	Foreign exchange differences	Other movements	As of December 31
2021	13,087.4	196.2	(24.0)	732.7		13,992.3
2022	13,992.3	128.3	(54.5)	521.7	(0.6)	14,587.2

10.2. SIGNIFICANT GOODWILL

	2021	2022		Net carrying amount
	Net carrying amount	Gross carrying amount	Impairment losses	
Gas & Services	13,610.9	14,199.1		14,199.1
<i>Europe</i>	3,133.9	3,142.9		3,142.9
<i>Americas^(a)</i>	8,937.4	9,476.4		9,476.4
<i>Asia-Pacific</i>	1,388.6	1,421.5		1,421.5
<i>Middle East and Africa</i>	151.0	158.3		158.3
Engineering & Construction	243.1	251.3		251.3
Global Markets & Technologies	138.3	138.2	(1.4)	136.8
TOTAL GOODWILL	13,992.3	14,588.6	(1.4)	14,587.2

(a) Goodwill recognized within Gas & Services Americas mainly comes from the United States contributing up to 9,286.8 million euros as of December 31, 2022.

In the last two fiscal years, the Group has not recorded any goodwill impairment losses.

Impairment tests were carried out using the methods detailed in note 5.f of the accounting policies. The key model assumptions used, such as market multiples and the discount rate, took into account the stock market and world economic context.

The market multiples used were determined using the Air Liquide Group market value as of December 31, 2022. Multiples obtained do not materially differ from those of companies whose activity is similar to that of the Group.

If need be, the growth rates used for estimating the cash flows of cash-generating units or groups of cash-generating units were significantly lower than the Group's historical average growth rates. Growth rates are comprised between 1% and 3% in mature markets, and up to 5.5% in emerging markets. The weighted average cost of capital used was 5.6% as of December 31, 2022 (4.1% as of December 31, 2021). The weighted average cost of

capital is adjusted for the activity and the geographical location of the cash-generating units being tested.

As of December 31, 2022 and December 31, 2021, the recoverable amounts of each cash-generating unit or groups of cash-generating units significantly exceeded their net carrying amounts.

Considering the activity of the Air Liquide Group, no reasonably possible change in key assumptions would result in an impairment. The Gas & Services activities favor synergies between the different business lines by pooling assets for a given geographical area. The geographical development of the activity is generally based on local industrial investments and external growth operations throughout the Large Industries business line. The supply of gas to clients of the Large Industries business line is contracted for a minimum duration of 15 years. These customer contracts provide a good visibility and guarantee of future income.

Note 11 Other intangible assets

11.1. GROSS CARRYING AMOUNTS

2022 (in millions of euros)	As of January 1	Additions	Disposals	Foreign exchange differences	Acquisitions related to business combinations	Other movements ^(a)	As of December 31
Internally generated intangible assets	740.6	59.9	(1.3)	11.3	—	3.5	814.0
Other intangible assets	2,522.9	75.0	(16.5)	69.6	392.6	(6.4)	3,037.2
TOTAL GROSS INTANGIBLE ASSETS	3,263.5	134.9	(17.8)	80.9	392.6	(2.9)	3,851.2

(a) Other movements primarily include account reclassifications and changes in the scope of consolidation.

2021 (in millions of euros)	As of January 1	Additions	Disposals	Foreign exchange differences	Acquisitions related to business combinations	Other movements ^(a)	As of December 31
Internally generated intangible assets	677.5	49.3	(16.5)	17.5	—	12.8	740.6
Other intangible assets	2,359.4	75.0	(46.1)	116.1	1.4	17.1	2,522.9
TOTAL GROSS INTANGIBLE ASSETS	3,036.9	124.3	(62.6)	133.6	1.4	29.9	3,263.5

(a) Other movements primarily include account reclassifications and changes in the scope of consolidation.

In first half 2022, the Group has finalized its analysis of the IFRS IC agenda decision relating to the configuration and customization costs of software operated by the Group under cloud computing (SaaS) contracts. On the basis of this analysis, in regards of the contractual and technical characteristics of the projects and definition and recognition criteria for intangible assets defined by IAS 38, no material impact on the Group's Consolidated Financial Statements has been identified.

11.2. AMORTIZATION AND IMPAIRMENT LOSSES

2022 (in millions of euros)	As of January 1	Charge for the period	Impairment losses	Disposals	Foreign exchange differences	Acquisitions related to business combinations	Other movements ^(a)	As of December 31
Internally generated intangible assets	(509.9)	(53.3)	(6.3)	0.6	(6.5)	—	(2.2)	(577.6)
Other intangible assets	(1,301.0)	(150.5)	(3.5)	13.8	(25.9)	—	4.9	(1,462.2)
TOTAL INTANGIBLE ASSET AMORTIZATION	(1,810.9)	(203.8)	(9.8)	14.4	(32.4)	—	2.7	(2,039.8)
TOTAL NET INTANGIBLE ASSETS ^(b)	1,452.6	(68.9) ^(c)	(9.8)	(3.4)	48.5	392.6	(0.2)	1,811.4

(a) Other movements primarily include account reclassifications and changes in the scope of consolidation.

(b) Other intangible assets mainly include trademarks and customer relationship valuation as part of business combination.

(c) This amount is the net of additions and charges for the period.

2021 (in millions of euros)	As of January 1	Charge for the period	Impairment losses	Disposals	Foreign exchange differences	Acquisitions related to business combinations	Other movements ^(a)	As of December 31
Internally generated intangible assets	(464.4)	(50.0)	4.6	9.4	(9.7)	—	0.2	(509.9)
Other intangible assets	(1,174.7)	(122.6)	(0.5)	38.2	(43.1)	—	1.7	(1,301.0)
TOTAL INTANGIBLE ASSET AMORTIZATION	(1,639.1)	(172.6)	4.1	47.6	(52.8)	—	1.9	(1,810.9)
TOTAL NET INTANGIBLE ASSETS ^(b)	1,397.8	(48.4) ^(c)	4.1	(14.9)	80.8	1.4	31.8	1,452.6

(a) Other movements primarily include account reclassifications and changes in the scope of consolidation.

(b) Other intangible assets mainly include the Airgas trademark for 387.6 million euros as of December 31, 2021.

(c) This amount is the net of additions and charges for the period.

As of December 31, 2022, the Group had no material commitment to acquire intangible assets and was not subject to any restrictions over the use of existing intangible assets.

Note 12 Property, plant and equipment

12.1. GROSS CARRYING AMOUNTS

2022 (in millions of euros)	As of January 1	Additions	Disposals	Foreign exchange differences	Acquisitions related to business combinations	Other movements ^(a)	As of December 31
Land	471.5	6.0	(17.6)	5.1	0.3	8.7	474.0
Buildings	2,286.3	13.3	(20.4)	36.3	1.5	174.6	2,491.6
Equipment, cylinders, installations	40,110.3	430.4	(545.9)	711.2	127.5	1,304.7	42,138.2
Rights of use	1,795.0	147.6	(10.2)	54.3	0.4	(33.0)	1,954.1
TOTAL PROPERTY, PLANT AND EQUIPMENT IN SERVICE	44,663.1	597.3	(594.1)	806.9	129.7	1,455.0	47,057.9
Construction in progress	3,178.3	2,775.9		59.4	86.6	(2,704.7)	3,395.5
TOTAL PROPERTY, PLANT AND EQUIPMENT	47,841.4	3,373.2	(594.1)	866.3	216.3	(1,249.7)	50,453.4

(a) Other movements primarily include account reclassifications and changes in the scope of consolidation.

2021 (in millions of euros)	As of January 1	Additions	Disposals	Foreign exchange differences	Acquisitions related to business combinations	Other movements ^(a)	As of December 31
Land	432.0	16.8	(3.9)	16.3	1.0	9.3	471.5
Buildings	2,127.8	7.8	(52.1)	95.0	10.1	97.7	2,286.3
Equipment, cylinders, installations	36,108.3	426.4	(506.4)	1,551.1	429.0	2,101.9	40,110.3
Rights of use	1,565.2	172.8	(21.9)	87.3	3.4	(11.8)	1,795.0
TOTAL PROPERTY, PLANT AND EQUIPMENT IN SERVICE	40,233.3	623.8	(584.3)	1,749.7	443.5	2,197.1	44,663.1
Construction in progress	2,896.6	2,396.7		179.3	10.5	(2,304.8)	3,178.3
TOTAL PROPERTY, PLANT AND EQUIPMENT	43,129.9	3,020.5	(584.3)	1,929.0	454.0	(107.7)	47,841.4

(a) Other movements primarily include account reclassifications and changes in the scope of consolidation.

Purchases of property, plant and equipment and intangible assets presented in the consolidated statement of cash flows relate to the increase in property, plant and equipment and intangible assets adjusted for the change in the fixed asset suppliers' balance during the current year.

12.2. DEPRECIATION AND IMPAIRMENT LOSSES

2022 (in millions of euros)	As of January 1	Charge for the period	Impairment losses	Disposals	Foreign exchange differences	Acquisitions related to business combinations	Other movements ^(a)	As of December 31
Buildings	(1,189.7)	(92.1)		15.4	(10.4)	—	(3.4)	(1,280.2)
Equipment, cylinders, installations	(23,489.5)	(1,939.4)	(395.8)	429.9	(331.2)	—	969.3	(24,756.7)
Rights of use	(630.7)	(238.6)	9.5	8.8	(16.0)	—	97.4	(769.6)
TOTAL PROPERTY, PLANT AND EQUIPMENT DEPRECIATION	(25,309.9)	(2,270.1)	(386.3)	454.1	(357.6)	—	1,063.3	(26,806.5)
TOTAL PROPERTY, PLANT AND EQUIPMENT, NET	22,531.5	1,103.1 ^(b)	(386.3)	(140.0)	508.7	216.3	(186.4)	23,646.9

(a) Other movements primarily include account reclassifications and changes in the scope of consolidation.

(b) This amount is the net of additions and charges for the period.

2021 (in millions of euros)	As of January 1	Charge for the period	Impairment losses	Disposals	Foreign exchange differences	Acquisitions related to business combinations	Other movements ^(a)	As of December 31
Buildings	(1,094.0)	(88.7)		24.6	(37.3)		5.7	(1,189.7)
Equipment, cylinders, installations	(21,569.6)	(1,689.2)	(2.3)	446.2	(814.0)		139.4	(23,489.5)
Rights of use	(463.4)	(229.0)	(2.8)	21.1	(27.0)		70.4	(630.7)
TOTAL PROPERTY, PLANT AND EQUIPMENT DEPRECIATION	(23,127.0)	(2,006.9)	(5.1)	491.9	(878.3)		215.5	(25,309.9)
TOTAL PROPERTY, PLANT AND EQUIPMENT, NET	20,002.9	1,013.6 ^(b)	(5.1)	(92.4)	1,050.7	454.0	107.8	22,531.5

(a) Other movements primarily include account reclassifications and changes in the scope of consolidation.

(b) This amount is the net of additions and charges for the period.

The charge for the period corresponds to the increase in depreciation, net of investment grants released to the income statement.

12.3. MATURITY OF LEASE LIABILITY

The maturity of the lease liabilities related to rights-of-use is as follows:

2022 (in millions of euros)	Carrying amount	Maturity								
		< 1 year	≥ 1 year and ≤ 5 years				> 5 years			
			2024	2025	2026	2027	2028	2029	2030	> 2030
Non-current lease liabilities	1,052.2		242.8	158.6	126.5	104.9	75.6	71.0	64.9	207.9
Current lease liabilities	227.6	227.6								
TOTAL LEASE LIABILITIES	1,279.8	227.6	242.8	158.6	126.5	104.9	75.6	71.0	64.9	207.9

2021 (in millions of euros)	Carrying amount	Maturity								
		< 1 year	≥ 1 year and ≤ 5 years				> 5 years			
			2023	2024	2025	2026	2027	2028	2029	> 2028
Non-current lease liabilities	1,032.8		201.9	161.6	132.7	100.9	83.0	72.7	68.0	212.0
Current lease liabilities	228.0	228.0								
TOTAL LEASE LIABILITIES	1,260.8	228.0	201.9	161.6	132.7	100.9	83.0	72.7	68.0	212.0

Note 13 Non-current financial assets

<i>(in millions of euros)</i>	2021	2022
Non-consolidated investments	379.5	414.8
Loans	34.4	75.0
Other long-term receivables	273.2	224.9
Employee benefits	58.3	60.8
NON-CURRENT FINANCIAL ASSETS	745.4	775.5

Note 14 Investments in equity affiliates

14.1. FINANCIAL INFORMATION RELATED TO JOINT VENTURES AND ASSOCIATES

Group share of associates and joint ventures as of December 31, 2022 <i>(in millions of euros)</i>	Share of profit for the period	Share of equity ^(a)	Share of net income and gains and losses recognized directly in equity ^(b)
Joint ventures	9.9	135.7	16.9
Associates	(8.8)	50.0	12.2
TOTAL	1.1	185.7	29.1

(a) Including goodwill relating to associates and joint ventures.

(b) The share of net income and gains and losses recognized directly in equity primarily comprises the translation reserves.

Group share of associates and joint ventures as of December 31, 2021 <i>(in millions of euros)</i>	Share of profit for the period	Share of equity ^(a)	Share of net income and gains and losses recognized directly in equity ^(b)
Joint ventures	10.0	129.0	12.9
Associates	(4.6)	29.0	12.1
TOTAL	5.4	158.0	25.0

(a) Including goodwill relating to associates and joint ventures.

(b) The share of net income and gains and losses recognized directly in equity primarily comprises the translation reserves.

14.2. MOVEMENTS DURING THE YEAR

<i>(in millions of euros)</i>	As of January 1	Share of profit for the period	Dividend distribution	Foreign exchange differences	Other movements	As of December 31
2021	160.9	5.4	(5.5)	10.7	(13.5)	158.0
2022	158.0	1.1	(13.8)	4.1	36.3	185.7

None of the consolidated companies using the equity method of accounting is individually material.

Note 15 Deferred taxes

15.1. DEFERRED TAX ASSETS

The change in deferred tax assets over the fiscal year is as follows:

<i>(in millions of euros)</i>	2021	2022
AS OF JANUARY 1	268.4	239.3
Income (charge) to the income statement	15.6	40.3
Income (charge) to equity for the period ^(a)	(30.7)	(28.7)
Changes related to scope	6.1	0.3
Foreign exchange differences	0.8	(2.4)
Others ^(b)	(20.9)	(16.5)
AS OF DECEMBER 31	239.3	232.3

(a) Relates to deferred taxes recognized in other items in the statement of net income and gains and losses recognized directly in equity: +18.0 million euros relate to changes in the fair value of derivatives and non-consolidated investments and -46.7 million euros relate to actuarial gains and losses. In 2021, the respective effects amounted to -20.3 million euros relating to changes in the fair value of derivatives and non-consolidated investments and -10.4 million euros relating to actuarial gains and losses.

(b) Other movements primarily include account reclassifications between accounts.

As of December 31, 2022, unrecognized deferred tax assets amounted to 104.0 million euros (130.1 million euros as of December 31, 2021).

15.2. DEFERRED TAX LIABILITIES

The change in deferred tax liabilities over the fiscal year is as follows:

<i>(in millions of euros)</i>	2021	2022
AS OF JANUARY 1	1,871.5	2,126.8
Charge (income) to the income statement	129.0	142.8
Charge (income) to equity for the period ^(a)	35.7	43.1
Changes related to scope	1.9	94.9
Foreign exchange differences	115.2	82.4
Others ^(b)	(26.5)	(24.6)
AS OF DECEMBER 31	2,126.8	2,465.4

(a) Relates to deferred taxes recognized in other items in the statement of net income and gains and losses recognized directly in equity: -0.8 million euros relate to changes in the fair value of derivatives and non-consolidated investments and +43.9 million euros relate to actuarial gains and losses. In 2021, the respective effects amounted to +0.4 million euros relating to changes in the fair value of derivatives and non-consolidated investments and +35.3 million euros relating to actuarial gains and losses.

(b) Other movements primarily include account reclassifications between accounts.

15.3. DEFERRED TAX BY NATURE

The net deferred taxes are broken down as follows:

	2021	2022
Amortization/depreciation	(2,253.8)	(2,342.8)
Provisions, pensions and other employee benefits	313.1	145.2
Other provisions	249.2	302.0
Tax loss carryforwards	102.7	51.1
Other	(298.7)	(388.6)
TOTAL	(1,887.5)	(2,233.1)

Note 16 Inventories and work-in-progress

<i>(in millions of euros)</i>	2021	2022
Raw materials and supplies	446.4	567.2
Finished and semi-finished goods	1,028.5	1,251.9
Work-in-progress	110.2	141.9
NET INVENTORIES	1,585.1	1,961.0

<i>(in millions of euros)</i>	2021	2022
Write-down of inventories	(23.2)	(30.8)
Reversals of write-down	17.4	17.7
NET WRITE-DOWN RECOGNIZED IN THE INCOME STATEMENT	(5.8)	(13.1)

Note 17 Trade receivables

<i>(in millions of euros)</i>	2021	2022
Trade and other operating receivables	2,891.7	3,258.5
Provisions for impairment	(197.6)	(223.7)
TRADE RECEIVABLES	2,694.1	3,034.8

Trade and other operating receivables include gross amounts relating to Engineering & Construction contracts for 112.9 million euros (97.1 million euros as of December 31, 2021).

As of December 31, 2022, cumulative revenue recognized using the percentage of completion method and cumulative cash in over the past years from the beginning of the projects in progress amounted respectively to 1,537.5 million euros (1,248.1 million euros as of December 31, 2021) and 1,575.9 million euros (1,294.9 million euros as of December 31, 2021).

17.1. BREAKDOWN OF TRADE AND OTHER OPERATING RECEIVABLES

<i>(in millions of euros)</i>	Gross carrying amount	Not yet due	Impaired and overdue	Not impaired and overdue
2021	2,891.7	2,210.5	193.3	487.9
2022	3,258.5	2,504.8	215.0	538.7

Trade receivables overdue and not impaired at the year-end mainly included receivables due within three months.

The accounting principles relating to trade receivables impairment (expected credit losses) are described in section 6.b of the accounting principles.

17.2. PROVISION FOR IMPAIRMENT

<i>(in millions of euros)</i>	As of January 1	Charges	Reversals	Foreign exchange differences	Other movements	As of December 31
2021	(204.0)	(32.4)	30.8	(5.2)	13.2	(197.6)
2022	(197.6)	(76.9)	39.0	(1.1)	12.9	(223.7)

17.3. INFORMATION RELATING TO NON-RECOURSE ASSIGNMENTS OF TRADE RECEIVABLES

Non-recourse factored receivables in Europe, in Asia and in the Americas, amounted to 1,567.4 million euros compared to 1,395.1 million euros at the end of 2021.

The European program, set up in 2015 and renewed in 2020 was amended on May 2022 to increase its coverage to 800 million euros (872 million euros including 9% of deferred purchase price). Its maturity is February 28, 2026. The assigned receivables, in the amount of 671.3 million euros, were derecognized as of December 31, 2022 (638.4 million euros as of December 31, 2021).

The American program held by Airgas and set up in December 2018, was renewed on December 2022 with a maturity on December 2025. As of December 31, 2022, the program covers 750 million US dollars (703 million euros) and 676.5 million US dollars (634.3 million euros) were derecognized.

Other non-recourse factoring programs exist in various countries and activities, mainly in Asia and Healthcare.

Almost all the risks and rewards were transferred to the assignees.

Note 18 Working capital requirement

The increase in working capital requirement by +396.8 million euros, presented in the consolidated cash flow statement, mainly comes from the increase in working capital requirement of Gas & Services activities for +301.4 million euros.

Note 19 Other current assets

<i>(in millions of euros)</i>	2021	2022
Advances and down-payments made	152.3	197.1
Prepaid expenses	134.2	156.2
Other sundry current assets	524.0	632.1
OTHER CURRENT ASSETS	810.5	985.4

Note 20 Cash and cash equivalents

<i>(in millions of euros)</i>	2021	2022
Short-term loans	66.0	35.3
Short-term marketable securities	187.1	267.0
Cash in bank	1,993.5	1,609.1
CASH AND CASH EQUIVALENTS	2,246.6	1,911.4

As of December 31, 2022, cash and cash equivalents include 155 million euros subject to restrictions (150 million euros as of December 31, 2021), mainly in four countries: in Luxembourg (regulatory restrictions relating to the Group's captive reinsurance company), in Argentina and Egypt (because of effective currency restrictions), and in Germany (joint venture companies).

Furthermore, 63 million euros of cash and cash equivalents are held in countries in which a prior authorization is necessary to transfer funds abroad. These liquidities are at the Group's disposal within a reasonable time period, if preliminary formalities are respected. This amount stood at 41 million euros as of December 31, 2021.

Note 21 Shareholders' equity

21.1. SHARES

Number of shares

	2021	2022
NUMBER OF SHARES AS OF JANUARY 1	473,660,724	475,291,037
Free share attribution	-	48,905,499
Capital increase reserved for employees	1,098,738	-
Options exercised during the period	696,575	352,635
Cancellation of treasury shares	(165,000)	(1,098,900)
NUMBER OF SHARES AS OF DECEMBER 31	475,291,037	523,450,271

Shares have a par value of 5.50 euros each and are all issued and fully paid-up.

In 2022, a total of 1,202,795 shares were repurchased (net of disposals), of which net repurchase for 1 198 600 shares before the free shares attribution and net repurchase for 4 195 shares after the free shares attribution.

21.2. FREE SHARES ATTRIBUTION

Benoît Potier as Chairman and Chief Executive Officer and under the authority conferred to him by the Board of Directors of May 4, 2022, decided, on May 31, 2022, to create 47,547,083 new shares at a par value of 5.50 euros and ranking for dividends as of January 1, 2022. These shares were freely attributed on June 8, 2022 to Shareholders by capitalization of premiums, at a rate of one new share for ten existing shares.

In addition, pursuant to article 21 of the articles of the association, 1,358,416 new shares were created at a par value of 5.50 euros and ranking for dividends as of January 1, 2022. These shares were granted on June 8, 2022 as free shares to Shareholders at the parity of one share for one hundred existing shares on June 7, 2022 by capitalization of premiums. The shares subject to this additional free share attribution are the shares held in registered form continuously from December 31, 2019 to June 7, 2022 inclusive.

21.3. CAPITAL DECREASE

Under the authority of the 18th resolution adopted by the Annual General Meeting held on May 4, 2022, the Board of Directors of July 27, 2022, carried out the capital decrease of 6,043,950 euros to bring the capital back from 2,884,069,820.50 euros to 2,878,025,870.50 euros by cancelling 1,098,900 shares.

21.4. COMPANY TREASURY SHARES

Treasury shares are Air Liquide shares held by the Group, including shares forming part of the liquidity contract in accordance with an Ethics Charter recognized by the French financial markets authority (Autorité des marchés financiers). As of December 31, 2022, the Group held 1,223,450 treasury shares (1,227,185 as of December 31, 2021) including 10,500 treasury shares under a liquidity contract (7,050 as of December 31, 2021). Changes in the number of treasury shares are explained in the consolidated statement of changes in equity.

21.5. SHARE-BASED PAYMENTS

Share subscription option plans

Pursuant to the decisions of the Board of Directors, following the approval by the Annual General Meeting and based on the recommendations of the Remuneration Committee, the Company had adopted share subscription plans for some of the senior

executives of the Company and its subsidiaries worldwide, as well as corporate officers.

The purpose of these options is to provide an incentive to key executives, by rewarding the loyalty of high-performing executives and their actions in exceptional situations, as well as associating them with the long-term interests of Shareholders.

Stock options are granted for a minimum price which cannot be lower than the average closing market price over the 20 trading days preceding the grant date. Options granted since October 14, 2011 must be exercised within 10 years.

A four-year vesting period applies to stock options granted.

As of December 31, 2022, the number of outstanding share options granted by the Board of Directors under the plans approved by Annual General Meetings amounted to 1,340,889 options after adjustment (average price of 72.38 euros), or 0.26% of share capital.

Out of the total number of options issued pursuant to the approval by the Annual General Meeting on May 4, 2022, 10,469,005 options were retained for possible grant by the Board of Directors as of December 31, 2022.

Performance shares plans

An additional compensation system involving performance shares was set up in 2008 as a way to reward best employees and associate their medium-term performance with the Company's objectives.

The 21st resolution adopted by the Extraordinary Annual General Meeting held on May 4, 2022 authorizes the Board of Directors to grant free shares to Group employees, up to a maximum of 0.5% of the Company's share capital over a 38-month period. As part of this maximum attribution, free shares representing up to 0.1% of the Group's share capital can be granted to corporate officers over the same period.

Under this authority, the Board of Directors adopted two different general regulations on September 29, 2022 ("France" Plan and "World" Plan) governing the attribution of performance shares to beneficiaries determined by the Board of Directors. The differences between the "France" and "World" Plans mainly refer to the number of years of service required – paragraph a) below, and to the correlative absence of any holding requirement for the "World" Plan – paragraph c) below.

The granted shares shall be either shares issued through a capital increase performed by the Company by no later than the definitive vesting date or shares bought back by the Company in the market prior to such date.

To date, performance shares granted are treasury shares bought back as part of the Company's shares buyback program.

The granted shares shall be of the same nature and category as those making up the Company's share capital at the date on which the plans are approved by the Board of Directors.

On September 29, 2022, the Board of Directors decided to grant 460,415 performance shares to employees (2,575 beneficiaries).

Subscription options and performance shares are subject to:

a) a continued service requirement during the vesting period:

the shares granted to a beneficiary shall only finally vest if he or she has been an employee or corporate officer of a Group company during a vesting period, calculated as from the grant date, of three years for "France" Plan beneficiaries and four years for "World" Plan beneficiaries. In the event of retirement, the beneficiary retains his rights, being no longer required to satisfy the continued service requirement;

b) performance requirements for all performance shares allocated to all beneficiaries which are now identical to performance requirements applicable to stock-options;

c) a holding requirement for performance shares: as from the final grant date, the beneficiaries of the "France" Plan are required to hold their shares for two additional years during which such shares may not be transferred (except in the event of disability or death).

Options granted to the ten employees of the Company and its subsidiaries (excluding corporate officers) who were attributed the highest number of options

In 2022, no options have been granted.

Options exercised in 2022 by the ten employees of the Company and its subsidiaries (excluding corporate officers) with the highest number of options exercised

Grant date	Number of options exercised	Average price (in euros) ^(a)
09/27/2012	36,889	69.92
09/26/2013	31,538	68.71
09/22/2014	19,270	75.31
09/28/2015	3,747	81.46
11/29/2016	76	69.33
TOTAL	91,520	71.11

(a) Historical data.

Options exercised in 2021 by the ten employees of the Company and its subsidiaries (excluding corporate officers) with the highest number of options exercised

Grant date	Number of options exercised	Average price (in euros) ^(a)
10/14/2011	7,198	57.28
10/14/2011 Belgium	3,393	57.94
09/27/2012	68,004	70.14
09/26/2013	20,179	74.06
09/22/2014	9,605	77.67
09/28/2015	4,500	84.08
TOTAL	112,879	70.85

(a) Historical data.

Number of share subscription options and weighted average strike price

	2021		2022	
	Options ^(a)	Weighted average strike price (in euros)	Options	Weighted average strike price (in euros)
Total number of options outstanding as of January 1 (adjusted number and price)	2,475,317	69.72	1,700,972	71.39
Options exercised during the period (adjusted number and price)	759,959	65.93	352,635	71.14
Options canceled during the period (adjusted number and price)	14,386	72.57	7,448	72.43
Total number of options as of December 31 (adjusted number and price)	1,700,972	71.39	1,340,889	72.38
Of which total number of options eligible for exercise	1,616,414	70.52	1,340,889	72.38

(a) The total number of outstanding options at the beginning of the period was adjusted following the capital increase with free shares attribution in 2022.

Information on the fair value of share subscription options and attribution of performance shares

Share subscription options

No options have been granted in 2021 and 2022.

Attribution of performance shares

The achievement of performance conditions limited with Group result together with the achievement of performance condition linked to the carbon intensity reduction are not considered as underlyings assumptions and were deemed to have been fully achieved at the valuation date.

	2021		2022	
	Plan 1 ^(c)		Plan 1 ^(c)	
	09/29/2021		09/29/2022	
Duration of performance shares	5 years ^(a)	4 years ^(b)	5 years ^(a)	4 years ^(b)
Fair value of performance shares (in euros)	119.66 ^(a)	115.38 ^(b)	98.26 ^(a)	94.72 ^(b)

(a) Performance share to employees for beneficiaries located in France for which the fair value depends for 50% on performance conditions linked to the Group's results, 40% on Shareholder's return and 10% on the reduction in Air Liquide's carbon intensity.

(b) Performance share to employees for beneficiaries located outside of France for which the fair value depends for 50% on performance conditions linked to the Group's results, 40% on Shareholder's return and 10% on the reduction in Air Liquide's carbon intensity.

(c) Fair value at the attribution date, not restated for the effect of the later share capital increase with preferential subscription rights in the market and attributions of free shares.

An expense of 36.9 million euros (excluding taxes) relating to share subscription options and the attribution of performance shares was recognized in the income statement in 2022 compared to 31.4 million euros in 2021. The corresponding entry is recorded in equity.

Note 22 Provisions, pensions and other employee benefits

2022 <i>(in millions of euros)</i>	As of January 1	Increase	Utilized	Other reversals	Discounting	Foreign exchange differences	Acquisitions related to business combination	Other movements ^(a)	As of December 31
Pensions and other employee benefits	1,437.0	41.2	(89.8)		(286.6)	3.2	0.2	(13.8)	1,091.4
Restructuring plans	24.2	14.0	(18.3)	(0.7)		(0.1)		(3.3)	15.8
Guarantees and other provisions related to engineering contracts	89.1	145.4	(41.0)	(8.3)		(0.7)		1.2	185.6
Dismantling	274.5		(3.8)	(5.5)	6.8	2.9		(15.0)	259.9
Provisions and contingent liabilities as part of a business combination	190.8	0.8	(16.5)	(25.4)	1.8	10.3	3.2		164.9
Other provisions	585.7	141.5	(83.9)	(65.1)	1.5	5.7	0.2	(29.6)	555.9
TOTAL PROVISIONS	2,601.3	342.9	(253.3)	(105.0)	(276.5)	21.3	3.6	(60.5)	2,273.5

(a) Other movements correspond to account reclassifications, disposals and provisions for dismantling, with no impact on the consolidated cash flow statement.

2021 <i>(in millions of euros)</i>	As of January 1	Increase	Utilized	Other reversals	Discounting	Foreign exchange differences	Acquisitions related to business combination	Other movements ^(a)	As of December 31
Pensions and other employee benefits	1,612.8	47.6	(93.1)		(166.9)	11.1		25.5	1,437.0
Restructuring plans	29.8	3.9	(9.8)	(1.8)		1.0	0.5	0.6	24.2
Guarantees and other provisions related to engineering contracts	98.4	115.0	(104.6)	(12.8)		1.2		(8.1)	89.1
Dismantling	238.8		(2.5)	(0.7)	5.5	5.3		28.1	274.5
Provisions and contingent liabilities as part of a business combination	181.4	0.8	(19.5)	(7.9)	1.7	13.5	20.7	0.1	190.8
Other provisions	573.2	210.0	(187.6)	(26.0)	2.1	10.6	0.1	3.3	585.7
TOTAL PROVISIONS	2,734.4	377.3	(417.1)	(49.2)	(157.6)	42.7	21.3	49.5	2,601.3

(a) Other movements correspond to account reclassifications, disposals and provisions for dismantling, with no impact on the consolidated cash flow statement.

In the normal course of its operations, the Group is party to arbitration, judicial or administrative proceedings. The potential costs of such proceedings are provided for, when they are probable, only if the amount can be quantified or estimated within a reasonable range. In the latter case, the amount provided for represents the best estimate of the Group's management. Provisions are determined based on a case-by-case risk assessment and events occurring during ongoing proceedings may result in a risk reappraisal at any time. These litigations are by nature diverse and involve various Group subsidiaries. Contingency provisions recorded with respect to all Group litigations amounted to 185.8 million euros as of December 31,

2022 (228.5 million euros as of December 31, 2021) and are presented in "Other provisions". They include provisions for industrial disputes and for tax risks, excluding income taxes, respectively for 127.0 and 58.8 million euros.

The Group does not provide the detail of these provisions, considering that disclosing the amount provided for each individual litigation could be prejudicial to the Group. Nevertheless, no single litigation is likely to have a material effect on the Group's financial position or its profitability.

Note 23 Employee benefit obligations

23.1. PENSION PLANS

The most significant pension plans relate to France, Germany and the United States.

In France, Air Liquide provides an additional retirement benefit based on the final salary which is paid in addition to other normal pension plans. On December 31, 1995, this plan was closed to employees under age 45 or with less than 20 years of service as of January 1, 1996; the latter being covered by a defined contribution plan. These plans are unfunded. The annual amounts paid with regards to additional benefits cannot exceed a threshold set originally at 12% of total payroll or 12% of pre-tax profits of companies involved. This 12% threshold will be proportionately reduced by comparing the number of plan beneficiaries for the year to the number of plan beneficiaries for the previous year. In 2017, this additional benefit was funded subsequently to the Article 50 of the law of January 20, 2014 securing the future and fairness of pensions plans.

IAS 19 "Employee Benefits" provides a very restrictive definition of defined contribution plans; any plans not complying fully with the conditions required are defined benefit plans by default.

This restrictive definition of defined contribution plans requires Air Liquide to account for these additional benefits as a defined benefit plan in spite of the limited obligations for the Company and the nature of the obligations not being stable or continuous.

The qualification as a defined benefit plan results in the recognition of a provision with regards to the future obligations.

With the Company's obligations being limited, the valuation of what will actually be paid to retirees is uncertain. Since the effect of this threshold cannot be measured reliably, the provision recognized represents the actuarial value of the amounts to be paid out to retirees until the plan is closed, excluding any potential threshold effect. The additional retirement benefit paid by Air Liquide is aligned with the indexation of French statutory and supplementary pension plans up to a maximum annuity. Any additional annuity will not be subject to any indexation. The effects related to the revaluation cap and floor were accounted for in "Other financial expenses".

In Germany, there are two main Air Liquide pension plans.

The first plan provides the retirees of Lurgi (Engineering & Construction activity) with a lifetime annuity, based on the income and length of service vested in the plan at the time of retirement, the normal retirement age being 65. The plan also provides disability and widowhood pensions. This plan is now closed to new entrants, the latter benefiting from a defined contribution plan.

The second plan is an old plan covering employees of the Gas & Services activities. The plan provides a lifetime annuity, based on the average income earned over the employee's career and the length of service vested at the time of retirement, the normal retirement age being 65. The plan also provides disability, pre-retirement and widowhood pensions. It is now closed to new entrants, with new employees benefiting from another defined benefit plan. Providing a minimum length of service of ten years, the plan provides a lifetime annuity based on the average income earned over the employee's career and the length of service vested at the time of retirement, the normal retirement age being 65. The plan also provides disability, pre-retirement and widowhood pensions.

In accordance with common market practice in Germany, limited funding contributions are made to pension funds as both plans are mainly managed internally.

In the United States, Air Liquide grants retirees supplemental benefits in addition to the normal pension plans. The US plan provides a traditional final average pay benefit to those who continue to accrue benefits. A retiring employee may elect to receive their pension benefit as a lump sum or a lifetime annuity. This plan was closed to new participants in 2004 and was frozen in 2016. Therefore, employees who joined the Company before 2004 are no longer acquiring new rights on this defined benefit plan, but benefit from the defined contribution plan that has been opened since 2004 to new employees.

A new plan was implemented on January 1, 2017 (Supplemental Saving plan). This plan comes on top of the basic savings plan offering additional retirement benefits beyond the tax limit of the basic plan. It represents an annual cost of around 7 million US dollars.

23.2. OBLIGATIONS

Group obligations related to pension plans and similar benefits as of December 31, 2022 are shown below:

2022 (in millions of euros)	Defined benefit plans	Retirement termination payments	Other long term benefits	Medical Plans	Total
A. Change in net liabilities					
Net liabilities at the beginning of the period	(1,124.3)	(198.3)	(21.9)	(34.2)	(1,378.7)
(Acquisition) divestiture/transfer	(1.4)				(1.4)
(Expense) income recognized	(26.9)	(14.5)	2.0	(1.0)	(40.4)
Employer contributions	76.9	9.2	1.8	2.1	90.0
Gains (losses) for the period	241.4	56.9		6.2	304.5
Exchange rate movements	(5.5)	1.3	(0.1)	(0.2)	(4.5)
Net liabilities at the end of the period	(839.8)	(145.4)	(18.2)	(27.1)	(1,030.5)
B. Expense recorded in 2022					
Service cost	19.8	12.8	2.1	0.5	35.2
Interest expense on the net defined benefit liability	7.0	1.6	0.1	0.5	9.2
Past service cost	0.1	0.1	0.1		0.3 ^(a)
Actuarial (gains) losses			(4.3)		(4.3)
Expense (income) recognized	26.9	14.5	(2.0)	1.0	40.4
C. Change in present value of obligations in 2022					
DBO at the beginning of the period	2,428.0	198.6	21.9	34.4	2,682.9
Acquisition (divestiture) / transfer	1.4				1.4
Service cost	19.8	12.8	2.1	0.5	35.2
Interest cost	30.8	1.6	0.1	0.5	33.0
Employee contributions	2.2				2.2
Plan amendments	0.1	0.1	0.1		0.3 ^(a)
Benefit payments	(178.4)	(9.2)	(1.3)	(2.1)	(191.0)
Actuarial (gains) losses	(526.5)	(57.1)	(4.3)	(6.2)	(594.1)
Exchange rate movements	47.1	(1.2)	0.1	0.1	46.1
Obligations at the end of the period	1,824.5	145.6	18.7	27.2	2,016.0
D. Change in plan assets in 2022					
Fair value of assets at the beginning of the period	1,303.7	0.3		0.2	1,304.2
Acquisition (divestiture) / transfer					
Actual return on plan assets	(215.1)	(0.2)			(215.3)
Employer contributions	7.8	0.1	0.4		8.3
Employee contributions	2.2				2.2
Benefit payments	(109.3)				(109.3)
Exchange rate movements	42.6				42.6
Fair value of assets at the end of the period	1,031.9	0.2	0.4	0.2	1,032.7
E. Funded status at the end of 2022					
Present value of obligations	(1,824.4)	(145.6)	(18.7)	(27.3)	(2,016.0)
Fair value of plan assets	1,031.9	0.2	0.4	0.2	1,032.7
Surplus management reserve	(47.3)		0.1		(47.2)
Net liabilities	(839.8)	(145.4)	(18.2)	(27.1)	(1,030.5)
F. Actuarial (gains) and losses recognized directly in equity					
(Gains) and losses at the beginning of the period	1,151.8	48.1		4.7	1,204.6
Acquisition (divestiture) / transfer	0.6	0.1			0.7
(Gains) and losses on obligations	(526.5)	(57.1)		(6.2)	(589.8)
(Gains) and losses on plan assets	237.5	0.2			237.7
Change in surplus management reserve	47.3				47.3
Exchange rate movements	23.9	(0.7)	0.1		23.3
(Gains) and losses at the end of the period ^(b)	934.6	(9.4)		(1.5)	923.8

(a) Past service costs and plan amendments mainly relate to pension plans and medical costs in France.

(b) Losses (gains), net of tax, recognized in equity, amounted to 687 million euros as of December 31, 2022.

Group obligations related to pension plans and similar benefits as of December 31, 2021 are shown below:

2021 (in millions of euros)	Defined benefit plans	Retirement termination payments	Other long term benefits	Medical Plans	TOTAL
A. Change in net liabilities					
Net liabilities at the beginning of the period	(1,325.6)	(212.1)	(22.6)	(37.6)	(1,597.9)
(Acquisition) divestiture/transfer	(0.3)	0.7			0.4 ^(c)
(Expense) income recognized	(32.7)	(13.2)	(0.6)	(1.0)	(47.5)
Employer contributions	83.2	7.1	1.4	2.2	93.9
Gains (losses) for the period	159.3	19.4		2.7	181.4
Exchange rate movements	(8.2)	(0.2)	(0.1)	(0.5)	(9.0)
Net liabilities at the end of the period	(1,124.3)	(198.3)	(21.9)	(34.2)	(1,378.7)
B. Expense recorded in 2021					
Service cost	27.8	12.3	1.4	0.7	42.2
Interest expense on the net defined benefit liability	4.9	0.9	0.1	0.3	6.2
Past service cost			0.1		0.1 ^(a)
Actuarial (gains) losses			(1.0)		(1.0)
Expense (income) recognized	32.7	13.2	0.6	1.0	47.5
C. Change in present value of obligations in 2021					
DBO at the beginning of the period	2,561.1	212.4	22.6	37.8	2,833.9
Acquisition (divestiture) / transfer	(0.2)	(0.7)			(0.9) ^(c)
Service cost	27.8	12.3	1.4	0.7	42.2
Interest cost	21.4	0.9	0.1	0.3	22.7
Employee contributions	2.1				2.1
Plan amendments			0.1		0.1 ^(a)
Benefit payments	(150.8)	(7.1)	(1.4)	(2.2)	(161.5)
Actuarial (gains) losses	(121.9)	(19.4)	(1.0)	(2.7)	(145.0)
Exchange rate movements	88.5	0.2	0.1	0.5	89.3
Obligations at the end of the period	2,428.0	198.6	21.9	34.4	2,682.9
D. Change in plan assets in 2021					
Fair value of assets at the beginning of the period	1,235.5	0.3		0.2	1,236.0
Acquisition (divestiture) / transfer	(0.5)				(0.5) ^(c)
Actual return on plan assets	53.9				53.9
Employer contributions	8.4	0.1			8.5
Employee contributions	2.1				2.1
Benefit payments	(76.0)	(0.1)			(76.1)
Exchange rate movements	80.3		0.1		80.3
Fair value of assets at the end of the period	1,303.7	0.3		0.2	1,304.2
E. Funded status at the end of 2021					
Present value of obligations	(2,428.0)	(198.6)	(21.9)	(34.4)	(2,682.9)
Fair value of plan assets	1,303.7	0.3		0.2	1,304.2
Net liabilities	(1,124.3)	(198.3)	(21.9)	(34.2)	(1,378.7)
F. Actuarial (gains) and losses recognized directly in equity					
(Gains) and losses at the beginning of the period	1,265.6	67.6		7.7	1,340.9
Acquisition (divestiture) / transfer	13.1				13.1 ^(c)
(Gains) and losses on obligations	(121.9)	(19.4)		(2.7)	(144.0)
(Gains) and losses on plan assets	(37.5)				(37.5)
Change in surplus management reserve	0.1				0.1
Exchange rate movements	32.4	(0.1)		(0.3)	32.0
(Gains) and losses at the end of the period ^(b)	1,151.8	48.1		4.7	1,204.6

(a) Past service costs and plan amendments mainly relate to pension plans and medical costs in France.

(b) Losses (gains), net of tax, recognized in equity, amounted to 883.0 million euros as of December 31, 2021.

(c) Acquisition (divestiture)/transfer mainly relates to the the non significant impact of the IFRS IC agenda decision regarding the calculation of pension obligations (IAS 19).

The amounts mentioned above can be broken down as follows by geographical area as of December 31, 2022:

2022 (in millions of euros)	Obligations	Plan assets	Provisions in the balance sheet	Surplus management reserve
Europe / Africa	(1,252)	338	(962)	47
Americas	(714)	651	(63)	
Asia-Pacific	(50)	44	(6)	
TOTAL	(2,016)	1,033	(1,031)	47

The amounts mentioned above can be broken down as follows by geographical area as of December 31, 2021:

2021 (in millions of euros)	Obligations	Plan assets	Provisions in the balance sheet	Surplus management reserve
Europe / Africa	(1,693)	421	(1,272)	
Americas	(928)	832	(96)	
Asia-Pacific	(62)	51	(11)	
TOTAL	(2,683)	1,304	(1,379)	

23.3. MAIN ASSUMPTIONS

The main discount rates used are as follows:

	2021	2022
Euro zone	1.0%	3.8%
Canada	3.2%	5.0%
Japan	0.5%	1.4%
Switzerland	0.3%	2.2%
United States	2.8%	5.4%
United Kingdom	1.9%	4.8%

Differences between expected returns on plan assets and the main discount rates are as follows:

2022	Expected return on assets ^(a)	Discount rate 2021	Impact (in bp)
Euro zone	2.5%	1.0%	(150)
Canada	6.6%	3.2%	(340)
Japan	2.5%	0.5%	(200)
Switzerland	5.1%	0.3%	(480)
United States	5.4%	2.8%	(260)
United Kingdom	3.7%	1.9%	(180)

(a) The expected return on long-term assets was determined by taking into account, in each country, the asset allocation in the portfolio.

2021	Expected return on assets ^(a)	Discount rate 2020	Impact (in bp)
Euro zone	2.5%	0.6%	(190)
Canada	5.9%	2.6%	(330)
Japan	2.5%	0.6%	(190)
Switzerland	2.8%	0.1%	(270)
United States	3.1%	2.4%	(70)
United Kingdom	4.5%	1.3%	(320)

(a) The expected return on long-term assets was determined by taking into account, in each country, the asset allocation in the portfolio.

23.4. BREAKDOWN OF GAINS AND LOSSES FOR THE PERIOD

<i>(in millions of euros)</i>	2021	2022
Experience gains and losses on present value of the obligation	(25)	(17)
Gains and losses on present value of the defined obligation related to changes in assumptions	(120)	611
Experience gains and losses on fair value of assets	38	(238)

Breakdown of experience gains and losses on financial assets

2022 <i>(in millions of euros)</i>	Interest income on financial assets	Actual return on assets	Gains and losses on assets
Europe / Africa	3.0	(57.6)	(60.6)
Americas	20.4	(158.2)	(178.5)
Asia-Pacific	0.3	0.6	1.4
TOTAL	24.0	(215.0)	(237.7)

2021 <i>(in millions of euros)</i>	Interest income on financial assets	Actual return on assets	Gains and losses on assets
Europe / Africa	1.8	26.2	24.4
Americas	14.3	26.0	11.7
Asia-Pacific	0.3	1.7	1.4
TOTAL	16.4	53.9	37.5

23.5. PENSION PLAN RISK ANALYSIS**Sensitivity to movements in discount rates and other variables**

The present value of obligations related to defined benefit plans is measured by discounting future cash flows. Discount rates are determined based on Government bonds rates or, when the financial markets are sufficiently liquid, on "high-quality" corporate bond rates, which can vary from one period to another.

Changes in discount rates can materially change the present value of the Group's obligations and the expense recorded in the year.

The amount of obligations is affected to a lesser extent by revised wages and inflation indexes, as well as legal changes regarding retirement age or official mortality tables.

Impact of a -0.25% decrease in discount rates

	Impact on obligations as of December 31, 2022 <i>(in millions of euros)</i>	% of total obligations as of December 31, 2022
Europe / Africa	34	2.7%
Americas	17	2.4%
Asia-Pacific	1	1.9%
TOTAL	52	2.6%

	Impact on obligations as of December 31, 2021 <i>(in millions of euros)</i>	% of total obligations as of December 31, 2021
Europe / Africa	55	3.3%
Americas	28	3.0%
Asia-Pacific	1	1.0%
TOTAL	84	3.1%

Impact of a +0.25% increase in discount rates

	Impact on obligations as of December 31, 2022 (in millions of euros)	% of total obligations as of December 31, 2022
Europe / Africa	(32)	-2.5%
Americas	(16)	-2.3%
Asia-Pacific	(1)	-1.8%
TOTAL	(49)	-2.4%

	Impact on obligations as of December 31, 2021 (in millions of euros)	% of total obligations as of December 31, 2021
Europe / Africa	(53)	-3.1%
Americas	(27)	-2.9%
Asia-Pacific	(1)	-1.0%
TOTAL	(80)	-3.0%

Sensitivity of the value of plan assets to market conditions

For the Group's defined benefit plans subject to funding requirements, the fair value of plan assets is primarily dependent on interest rates, the performance of plan assets and amendments to local regulations. Any adverse movement in these variables would require additional Group contributions to the pension funds on a timely basis.

Plan assets consist of shares, bonds and other assets whose value is subject to market fluctuations. A downturn in the financial markets would increase the net liabilities of defined benefit plans. The plans' coverage ratios would decrease accordingly, requiring additional Group contributions on a timely basis.

2022 (in millions euros)	Shares		Bonds		Real estate		Cash		Others		TOTAL	
	Amounts	%	Amounts	%	Amounts	%	Amounts	%	Amounts	%	Amounts	%
Europe / Africa	71	21.0%	48	14.0%	97	29.0%	30	9.0%	91	27.0%	337	100.0%
Americas	221	34.0%	388	60.0%	42	6.0%		0.0%		0.0%	651	100.0%
Asia-Pacific	5	11.0%	35	79.0%	1	1.0%	3	6.0%	1	3.0%	45	100.0%
TOTAL	297		471		140		33		92		1,033	

2021 (in millions euros)	Shares		Bonds		Real estate		Cash		Others		TOTAL	
	Amounts	%	Amounts	%	Amounts	%	Amounts	%	Amounts	%	Amounts	%
Europe / Africa	87	20.7%	127	30.2%	112	26.7%	69	16.3%	26	6.1%	421	100.0%
Americas	192	23.1%	556	66.8%	62	7.5%	6	0.7%	16	2.0%	832	100.0%
Asia-Pacific	6	11.4%	40	79.6%	1	1.0%	2	4.9%	2	3.1%	51	100.0%
TOTAL	285		723		175		77		44		1,304	

Note 24 Borrowings

This note provides information on the breakdown of the Group's borrowings by instrument. For further information on financial instruments and the exposure to foreign exchange and interest rate risks, please refer to note 25.

Net debt calculation

<i>(in millions of euros)</i>	December 31, 2021	December 31, 2022
Non-current borrowings	(10,506.3)	(10,168.8)
Current borrowings	(2,188.6)	(2,003.9)
TOTAL GROSS DEBT	(12,694.9)	(12,172.7)
Cash and cash equivalents	2,246.6	1,911.4
TOTAL NET DEBT AT THE END OF THE PERIOD	(10,448.3)	(10,261.3)

Statement of changes in net debt

<i>(en millions d'euros)</i>	2021	2022
Net debt at the beginning of the period	(10,609.3)	(10,448.3)
Net cash flows from operating activities	5,570.7	5,810.1
Net cash flows used in investing activities	(3,351.5)	(3,241.9)
Net cash flows from (used in) financing activities excluding changes in borrowings	(1,593.6)	(1,927.2)
Total net cash flows	625.6	641.0
Effect of exchange rate changes, opening net debt of newly acquired companies and others	(269.3)	(248.0)
Adjustment of net finance costs	(195.3)	(206.0)
Change in net debt	161.0	187.0
TOTAL NET DEBT AT THE END OF THE PERIOD	(10,448.3)	(10,261.3)

The Air Liquide Group net debt breaks down as follows:

<i>(in millions of euros)</i>	2021			2022		
	Carrying amount			Carrying amount		
	Non-current	Current	Total	Non-current	Current	Total
Bonds and private placements	9,660.0	1,446.7	11,106.7	9,332.8	1,206.9	10,539.7
Commercial paper programs		244.4	244.4		130.6	130.6
Bank debt and other financial debt	773.7	495.0	1,268.7	760.5	665.1	1,425.6
Put options granted to minority shareholders	72.6	2.5	75.1	75.5	1.3	76.8
TOTAL BORROWINGS (A)	10,506.3	2,188.6	12,694.9	10,168.8	2,003.9	12,172.7
Short-term loans		66.0	66.0		35.3	35.3
Short-term marketable securities		187.1	187.1		267.0	267.0
Cash in bank		1,993.5	1,993.5		1,609.1	1,609.1
TOTAL CASH AND CASH EQUIVALENTS (B)		2,246.6	2,246.6		1,911.4	1,911.4
NET DEBT (A) - (B)	10,506.3	(58.0)	10,448.3	10,168.8	92.5	10,261.3

In accordance with the Group's policy to diversify funding sources, long-term bonds and private placements are the primary sources of funding and represent 87% of gross debt as of December 31, 2022. Outstanding notes under these sources amounted to 10,5 billion euros at the end of 2022.

The carrying amount of commercial paper amounted to 0.1 billion euros as of December 31, 2022, in slight decrease compared to December 31, 2021.

Gross debt decreased by 0.5 billion euros. Bond debt decreased by 0.7 billion euros, despite an unfavorable currency effect of 0.2 billion euros. Indeed, bond issues matured in 2022 were only partially renewed. In addition, bank debt increased by 0.2 billion euros, mainly in China, Taiwan, Singapore and India.

In 2022, one bond was issued by Air Liquide Finance, guaranteed by L'Air Liquide S.A.: a public bond issue of 600 million euros on September 9, 2022, under the EMTN program, maturity

September 16, 2032, at a reorder yield of 2.982% (2.875% coupon).

In consideration thereof, Air Liquide Finance repaid:

- a 2015 bond issuance on the Taiwanese market ("Formosa bond") for an amount of 500 million Chinese renminbi (69 million euros) on January 23, 2022;
- a 2016 bond issue under the EMTN program of 300 million euros on April 18, 2022;
- a 2016 bond issue under the EMTN program of 500 million euros on June 13, 2022;
- a 2012 private placement of 400 million US dollar (353 million euros) on September 13, 2022;
- a 2014 private placement of 130 million Swiss francs (126 million euros) on September 19, 2022.

The carrying amount of borrowings in the balance sheet is as follows:

(in millions of euros)	2021	2022		
	Carrying amount	Amount issued ^(a)	Amortized cost adjustments ^(b)	Carrying amount ^{(a)+(b)}
Bonds in the EMTN program	6,893.9	6,600.0	22.5	6,622.5
Bonds not in the EMTN program	2,987.0	3,155.8	10.3	3,166.1
Private placements in the EMTN program	602.1	456.6	10.5	467.1
Private placements not in the EMTN program	623.7	281.3	2.7	284.0
TOTAL BONDS AND PRIVATE PLACEMENTS	11,106.7	10,493.7	46.0	10,539.7
Commercial paper programs	244.4	131.9	(1.2)	130.6
Bank debt and other financial debt	1,268.7	1,399.7	25.9	1,425.6
Put options granted to minority shareholders	75.1	76.8		76.8
LONG-TERM BORROWINGS	12,694.9	12,102.1	70.7	12,172.7

(a) Nominal amount.

(b) Amortized cost including accrued interest.

24.1. CARRYING AMOUNT AND FAIR VALUE OF FINANCIAL ASSETS AND LIABILITIES

Financial assets or liabilities with a carrying amount differing from their fair value are unhedged fixed-rate borrowings.

(in millions of euros)	2021		2022	
	Carrying amount	Fair value	Carrying amount	Fair value
FINANCIAL LIABILITIES				
Non-current borrowings	10,506.3	10,706.2	10,168.8	11,345.5

The Group's financial instruments are measured at fair value to the extent that available financial market data enables a reliable estimate of their market value, assuming the absence of any intentions or needs to liquidate.

24.2. MATURITY OF BORROWINGS

It is the Group policy to spread over time the maturity of long-term debt (bonds, private placements and bank credit facilities) in order to limit the annual refinancing needs.

2022 (in millions of euros)	Nominal amount	Carrying amount	On demand	< 1 year	Maturity							
					≥ 1 year and ≤ 5 years				> 5 years			
					2024	2025	2026	2027	2028	2029	2030	> 2030
Bonds and private placements	10,493.7	10,539.7		1,206.9	1,185.7	1,098.5	1,318.4	690.3	995.3	563.9	1,090.7	2,390.0
Commercial paper programs	131.9	130.6		130.6								
Bank debt, overdraft and other financial debt	1,399.7	1,425.6		665.1	208.8	182.1	133.1	145.9	50.3	31.3	1.5	7.4
Put options granted to minority shareholders	76.8	76.8	15.7	1.3	46.9	11.1	1.8					
TOTAL BORROWINGS	12,102.1	12,172.7	15.7	2,003.9	1,441.4	1,291.7	1,453.3	836.2	1,045.6	595.2	1,092.2	2,397.4

2021 (in millions of euros)	Nominal amount	Carrying amount	On demand	< 1 year	Maturity							
					≥ 1 year et ≤ 5 years				> 5 years			
					2023	2024	2025	2026	2027	2028	2029	>2029
Bonds and private placements	11,059.1	11,106.7		1,446.7	1,072.1	1,173.5	1,097.9	1,249.1	684.0	994.5	535.9	2,853.0
Commercial paper programs	244.4	244.4		244.4								
Bank debt, overdraft and other financial debt	1,257.2	1,268.7		495.0	172.8	199.9	132.7	104.1	84.2	22.5	12.9	44.6
Put options granted to minority shareholders	75.1	75.1	25.3	2.5	30.7	6.6	10.0					
TOTAL BORROWINGS	12,635.8	12,694.9	25.3	2,188.6	1,275.6	1,380.0	1,240.6	1,353.2	768.2	1,017.0	548.8	2,897.6

24.3. FIXED-RATE PORTION OF GROSS DEBT

Portion of fixed-rate gross debt (as % of total debt)	2021	2022
EUR debt	100%	100%
USD debt	75%	83%
CNY debt	100%	53%
JPY debt	100%	95%
TWD debt	nc.	90%
ZAR debt	100 %	100%
Total debt	94%	94%

As of December 31, 2022, fixed-rate debt represented 94% of the total debt.

24.4. DETAIL OF BOND DEBT

The table below details the main characteristics of the Group's bond issues in progress as of December 31, 2022. They represent 87% of the Group's debt (87% as of December 31, 2021).

Currency	Nominal value (in millions)	Issue date	Maturity	Issuer	Coupon
EUR	600	2022	2032	AL Finance	2.875%
EUR	500	2021	2033	AL Finance	0.375%
EUR	500	2021	2031	AL Finance	0.375%
EUR	500	2020	2030	AL Finance	1.375%
EUR	500	2020	2025	AL Finance	1.000%
EUR	100	2020	2025	AL Finance	1.081%
EUR	600	2019	2030	AL Finance	0.625%
EUR	600	2017	2027	AL Finance	1.000%
EUR	1,000	2016	2028	AL Finance	1.250%
EUR	500	2016	2024	AL Finance	0.750%
EUR	500	2015	2025	AL Finance	1.250%
EUR	100	2014	2029	AL Finance	3.000%
EUR	150	2014	2026	AL Finance	3.000%
EUR	500	2014	2024	AL Finance	1.875%
EUR	300	2013	2023	AL S.A.	2.375%
USD	500	2019	2029	AL Finance	2.250%
USD	750	2016	2046	AL Finance	3.500%
USD	1,250	2016	2026	AL Finance	2.500%
USD	750	2016	2023	AL Finance	2.250%
USD	100	2012	2027	AL Finance	3.460%
USD	200	2012	2024	AL Finance	3.260%
CNY	800	2018	2023	AL Finance	6.400%
JPY	15,000	2008	2038	AL Finance	3.160%

24.5. NET DEBT BY CURRENCY

The Group ensures a natural hedge and reduces its exposure to currency fluctuations by raising debt mainly in the currency of the cash flows that are generated to repay the debt. In most countries, and especially outside the euro, US dollar, Japanese yen and Chinese renminbi zones, financing is raised in either local or foreign currency (EUR or USD) when sales contracts are indexed to foreign currency. Debt in other currencies is mainly denominated in Taiwan dollar, South African Rand, Singapore dollar, British pound sterling and in Canadian dollar.

As part of intra-group multi-currency financing, the Central Treasury Department converts the debt raised in financial markets into various currencies to finance subsidiaries in their functional currencies or their cash flow currencies. The breakdown of this hedging portfolio is shown in the table below.

Accordingly, a portion of the euro debt raised was converted (1,622.0 million euros) to other currencies to finance foreign subsidiaries. As an example, 3,543.5 million euros were raised initially in US dollar, and 537.3 million euros were raised in euros and converted in US dollar using currency swap contracts. 296.3 million euros were in cash or cash equivalent, leading to an adjusted net debt in US dollars of 3,784.5 million euros.

2022 (in millions of euros)	Gross debt – original issue	Interest rate and currency swaps	Cash and cash equivalents	Adjusted net debt
EUR	7,209.7	(1,622.0)	(892.7)	4,695.0
USD	3,543.5	537.3	(296.3)	3,784.5
JPY	108.8	218.2	(13.6)	313.4
CNY	314.6	(45.8)	(213.9)	54.9
TWD	387.9		(12.1)	375.8
ZAR	264.2		(41.4)	222.8
Other currencies	344.0	912.3	(441.4)	814.9
TOTAL	12,172.7		(1,911.4)	10,261.3

2021 (in millions of euros)	Gross debt – original issue	Interest rate and currency swaps	Cash and cash equivalents	Adjusted net debt
EUR	7,743.7	(2,061.9)	(1,340.1)	4,341.7
USD	3,671.4	1,052.1	(292.6)	4,430.9
JPY	117.7	82.9	(19.2)	181.4
CNY	230.8	(115.5)	(208.6)	(93.3)
ZAR	310.3		(27.6)	282.7
Other currencies	621.0	1,042.4	(358.5)	1,304.9
TOTAL	12,694.9		(2,246.6)	10,448.3

24.6. BREAKDOWN OF AVERAGE NET FINANCE COSTS

Net debt depends on the original gross debt raised on the financial markets, on the swap of this debt into foreign currencies to finance the subsidiaries, and on surplus cash positions. The average cost of net debt presented in the following table takes into account these various components, i.e. financing expenses, amortization and commission fees, income and expenses related to foreign currency translation and income or expenses related to cash surpluses.

(in millions of euros)	2021			2022		
	Average outstanding debt	Net interests	Average net finance costs	Average outstanding debt	Net interests	Average net finance costs
EUR	5,401.3	85.4	1.6%	4,854.3	87.2	1.8%
USD	4,125.5	122.3	3.0%	4,449.0	142.3	3.2%
JPY	377.0	6.0	1.6%	394.1	4.9	1.2%
CNY	(80.0)	11.4	N/A	76.2	13.7	-
TWD	nc	nc	nc	326.0	5.6	1.7 %
Other currencies	1,401.9	84.0	6.0%	1,271.1	84.1	6.6%
TOTAL	11,225.7	309.1	2.8%	11,370.7	337.8	3.0%
Non-recurring costs		7.3				
Capitalized interests		(36.4)			(49.4)	
TOTAL COST OF DEBT		280.0			288.4	

The average net finance costs, excluding capitalized interests and non-recurring costs increased by 28.7 million euros. They stand at 3.0% of the average outstanding debt in 2022. The total cost of debt stands at 288.4 million euros, increasing by 8.4 million euros.

24.7. OTHER FINANCING INFORMATION

Three financial covenants are associated to bank debt facilities exceeding 50 million euros: they are long term loans used by Air Liquide Arabia (Saudi Arabia) and Air Liquide Large Industries South Africa (South Africa), for a total outstanding amount of 327 million euros as of December 31, 2022. Financial covenants were all met as of December 31, 2022.

The amount of bank credit facilities subject to financial covenants represents around 4.0% of the Group's gross debt as of December 31, 2022.

Bonds issued by L'Air Liquide S.A. and Air Liquide Finance, and making up the carrying amount of bonds as of December 31, 2022, include a change of control clause.

Note 25 Financial risk policy and management

25.1. FINANCIAL RISK MANAGEMENT

Risk management is a priority for the Group. Consequently, the Finance Department governance relies on Strategic Finance Committees and Operational Finance Committees.

The Finance Department centrally manages the main financial risks, in accordance with decisions taken by the Strategic Finance Committee to which it reports on a regular basis. The Finance Department also performs country and customer risks analyses associated with investment decisions and attends Investment Committee meetings.

The financial policy adopted by Air Liquide, the purpose of which is to minimize the risks incurred by the Group and its subsidiaries, enables the Group to ensure sustainable funding sources. To minimize the refinancing risk related to debt maturity schedules, the Group diversifies financing sources and spreads maturities over several years. In 2022, the average debt maturity was 5.9 years. As of December 31, 2022, the long-term debt (gross debt maturing in more than one year) represented 84% of the overall Group debt, compared to 83% as of December 31, 2021.

Interest rate, commodities and foreign currency hedging strategies validated by the Operational Finance Committee are set up depending on market opportunities, while complying with prudence and risk limitation principles.

The Group also pays continuous attention to its bank and customer counterparty risks by regularly monitoring ratings issued by main international rating agencies and the level of risk associated with these counterparties. An internal ratings system, set-up in 2018, is used for the most important clients when no leading credit ratings agency information is available.

α) Foreign exchange risk

Principles

Financial instruments are only used to hedge transaction-based foreign exchange risk. The risk is attached on the one hand to financial cash flows arising from royalties, dividends, intra-group loans and borrowings denominated in foreign currencies and on the other hand to foreign currency commercial cash flows from operating entities. Although in slight increase, commercial cash flows denominated in foreign currencies do not represent significant amounts compared to consolidated revenue.

Foreign exchange risk related to royalties, dividend flows and intra-group loans and borrowings in foreign currencies is hedged by the Central Treasury Department using currency forwards or options with an overall term of less than 18 months. Currency hedging of intra-group loans and borrowings uses currency forwards.

Foreign currency commercial cash flows from operating entities are hedged either as part of the annual budgetary process for subsidiaries with recurring flows in foreign currency or at the signing date of a sale or purchase contract for non-recurring flows for the Engineering & Construction business line. Around a hundred subsidiaries are exposed to foreign exchange risk. These subsidiaries mainly use currency forwards set up by Air Liquide Finance (internal counterparty for hedging transactions) except in countries where it is prohibited by local regulations. The majority of these contracts have short maturities (three to twelve months) and market transactions are regulated by master agreements of the French Banking Federation ("FBF") or by master agreements of the International Swaps and Derivative Association ("ISDA") for local hedging operations. These do not include collateralization commitments or margin calls.

When preparing their budget at the year-end, subsidiaries report their foreign exchange risk exposure to the Central Treasury Department in order to hedge the commercial cash flows expected in the following year. In each case, the Central Treasury Department monitors the adequacy of the hedges with the identified risks and performs a full revaluation of all hedges, every six months.

The foreign exchange translation risk (consolidation in euros of the assets and liabilities in currencies) is not subject to hedging. Indeed, investments are essentially funded in the currency in which the cash flows are generated, thus creating a natural currency hedging.

Sensitivity of income statement and balance sheet items to foreign currency fluctuations

The table below sets out the effect of the translation of balance sheet items and the income statement of subsidiaries with a functional currency of USD, CNY, JPY, or CAD assuming a 10% appreciation against the euro (foreign exchange translation risk) on the following items:

<i>(in millions of euros)</i>	Revenue	% Total group	Operating income recurring	% Total group	Net profit	% Total group	Equity	% Total group
USD	951.0	3.18%	189.4	3.90%	135.9	4.93%	1,400.8	5.90%
CNY	250.8	0.84%	65.6	1.35%	68.3	2.48%	236.8	1.00%
JPY	90.0	0.30%	20.6	0.42%	12.2	0.44%	92.4	0.39%
CAD	82.5	0.28%	14.1	0.29%	9.7	0.35%	17.9	0.08%

The foreign currency risk sensitivity analysis shows that a 10% appreciation in the four major currencies as of December 31, 2022 would result in changes to revenue, operating income recurring, net profit and equity, as indicated above.

A 10% depreciation in the above currencies as of December 31, 2022, would have the equivalent but opposite effects as those presented above, assuming that all other variables remained constant.

Sensitivity of derivatives and their underlying hedged items to foreign currency fluctuations

The table below shows the effect of a 10% fluctuation in hedging currency exchange rates on the recognition of the foreign exchange derivatives portfolio in the Group's net profit and equity as of December 31, 2022. The sensitivity of net profit and equity primarily reflects the effect of foreign exchange swaps relating to

the intragroup financing activity of the subsidiary Air Liquide Finance, and currency forward hedging instruments contracted at head office level.

<i>(in millions of euros)</i>	Foreign exchange risk			
	+10%		-10%	
	P&L impact	Equity impact	P&L impact	Equity impact
Foreign exchange derivatives and their hedged underlying items	(0.4)	42.9	0.4	(42.9)

b) Interest rate risk

Principles

Air Liquide centrally manages interest rate risk on the main currencies: euro, US dollar, Chinese renminbi and Japanese yen which represented 84% of the Group's total net debt as of December 31, 2022. Regarding other currencies, the Finance Department provides subsidiaries with advice as to the different types of bank loans and/or hedging transactions to enter into according to the characteristics of local financial markets.

The Group policy is to maintain the major portion of total debt at fixed rates and to protect the residual balance using optional

hedging instruments. This approach enables the Group to limit the effect of interest rate fluctuations on financial expenses.

Consequently, at the 2022 year-end, 94% of the total debt was fixed-rate debt. The fixed-rate/floating-rate breakdown is reviewed on a regular basis by the Finance Committees, depending on interest rate fluctuations and the level of Group debt.

Sensitivity to interest rate fluctuations on floating-rate debt

The Group net debt exposed to interest rate fluctuations amounted to around 432 million equivalent euros as of December 31, 2022, for an average outstanding amount of 0.8 billion equivalent euros (total debt adjusted for interest rate hedging instruments and short-term securities) in slight increase compared to December 31, 2021 (0.7 billion equivalent euros).

An increase or decrease in interest rates by 100 basis points ($\pm 1\%$) on all yield curves would have an effect of approximately ± 8 million euros on the Group's annual cost of debt (accounted in financial charges) before tax, assuming outstanding floating debt remains constant.

Sensitivity to interest rate fluctuations on derivatives and their underlying hedged items

The table below shows the effect of a 1% fluctuation of interest rates in all foreign currencies on the interest rate derivatives portfolio in the Group's net profit and equity, as of December 31, 2022.

<i>(in millions of euros)</i>	Interest rate risk			
	+1.0%		-1.0%	
	P&L impact	Equity impact	P&L impact	Equity impact
Interest rate derivatives and their hedged underlying items	(0.3)	38.9	(0.2)	(39.1)

To protect the Group against the increase of variable rates applicable to short-term financing (commercial papers) and to other exposure to variable rates in 2023, the Group set up 6 firm hedges for 148 million euros and 200 million US dollar. They were completed by optional hedges for a total amount of 140 million euros and 200 million US dollar.

All hedging instruments used for interest rate or foreign exchange risk management purposes relate to identified risks and were set up to comply with the Group's financial policy. The effect on equity primarily stems from the fixed-rate hedging instruments contracted by the subsidiary Air Liquide Finance.

c) Counterparty risk

Counterparty risks for Air Liquide potentially include customers and bank counterparties.

The Group's subsidiaries serve a large number of customers (more than two million worldwide) located in extremely diverse markets: chemicals, steel, refining, food, pharmaceuticals, metals, automotive, manufacturing, healthcare, research laboratories, electronics, etc. In 2022, the Group's main customer represents around 2% of revenue, the Group's 10 main customers around 15% of sales, and the Group's 50 main customers around 35% of sales. The geographical risk is limited by the Group's sustainable coverage in 73 countries ⁽¹⁾ on all continents. This diversity reduces customer and market risk.

To better assess its exposure, the Group has implemented procedures to regularly monitor the financial situation of its major customers as well as a monthly reporting for the Group's 171 main transnational customers in order to monitor the related consolidated risk.

Moreover, customer risk assessment and in particular the quality of the customer's site is an important component of the investment decision process.

Bank counterparty risk relates to the outstanding amounts of deposits, current accounts, market values of derivatives and to the credit lines contracted with each bank. Pursuant to its financial policy, in the majority of cases, the Group requires a long-term

Standard & Poor's "A" credit rating or a Moody's "A2" rating from its counterparties to accept commitments on financial instruments. The Group's credit lines are also spread among several banks from various geographical areas to avoid the risk of concentration while complying with the same credit rating requirements. The Operational Finance Committee regularly reviews and approves the list of bank counterparties related to investments and the list of financial instruments. With regards to short-term investments, outstandings are subject to strict limits per counterparty and are monitored daily.

IFRS 13 Fair Value Measurement specifies that the valuation of currency, interest rate and commodity hedging instruments must take into account the counterparty credit risk attached to these transactions. Considering the aforementioned counterparty selection criteria, the effect on the periodic valuations, by applying the historical default probabilities method is immaterial.

d) Liquidity risk

It is Group financial policy to spread over time the maturity of long-term debt in order to avoid concentration of annual refinancing needs. Liquidity risk is also reduced by the stability of cash flows generated from operations as well as by having confirmed credit lines in place. The financial covenants attached to the current financing arrangements described in note 24.7 do not affect the Group's access to liquidity.

The carrying amount of short-term financing in the form of commercial paper amounted to 131 million euros as of December 31, 2022, a decrease by 113 million euros compared to the end of 2021. The average amount of commercial paper amounted to 756 million euros in 2022, compared to 516 million euros in 2021.

The Group policy requires that commercial paper in issue be backed by confirmed long-term credit lines. In 2022, this requirement was met, with an amount of confirmed credit lines of 3,600 million euros largely exceeding maximum outstanding commercial paper.

The table below presents the maturities of the bilateral and syndicated credit lines:

<i>(in millions of euros)</i>	2023	2024	2025	2026	2027	2028	Total
Bilateral lines and syndicated credit lines	—	500	2,500	400	200	—	3,600

When the Group makes short-term financial investments other than bank deposits, it systematically favors monetary instruments with a short-term maturity in order to limit the risk of non-liquidity or high volatility.

The following tables represent the future cash flows related to the main balance sheet items and to the derivative financial instruments recognized at the end of the last two periods. Interest flows are calculated in accordance with IFRS 7 and represent the

interest payable for each relevant period. Interest flows related to floating interest rate or foreign currency instruments were calculated using the closing interest and exchange rates as of December 31, 2021 and 2022. The flows related to debt repayment obligations differ from the amounts recognized in the Group's balance sheet due to the accounting treatment applied to borrowings and the exclusion of hedging instruments.

⁽¹⁾ Excluding Russia, where the entities are in the process of being divested. They are no more consolidated following the loss of control on September 1st, 2022.

2022 (in millions of euros)	Book value as of December 31, 2022	Cash Flow < 1 year		Cash flow ≥ 1 year and ≤ 5 years		Cash Flow > 5 year	
		Interest	Capital refund	Interest	Capital refund	Interest	Capital refund
Derivative instruments							
Assets							
Fair value of derivatives (assets)	148.4	38.1	500.5	35.0	1,186.7	5.7	291.5
Liabilities							
Fair value of derivatives (liabilities)	(163.1)	(45.6)	(459.8)	(71.1)	(848.9)	(8.3)	(287.4)
SUB-TOTAL DERIVATIVE INSTRUMENTS		(7.5)	40.7	(36.1)	337.8	(2.6)	4.1
Assets							
Loans and other non-current receivables	299.9				299.9		
Trade receivables	3,034.8		3,034.8				
Cash and cash equivalents	1,911.4	2.5	1,908.9				
SUB-TOTAL ASSETS		2.5	4,943.7		299.9		
Liabilities							
Non-current borrowings	(10,168.8)	(192.6)		(550.5)	(4,995.9)	(647.0)	(5,086.3)
Other non-current liabilities	(317.8)				(317.8)		
Trade payables	(3,782.6)		(3,782.6)				
Current borrowings	(2,003.9)	(43.2)	(1,899.9)				
SUB-TOTAL LIABILITIES		(235.8)	(5,682.5)	(550.5)	(317.8)	(647.0)	(5,086.3)
2021 (in millions of euros)							
	Book value as of December 31, 2021	Cash Flow < 1 year		Cash flow ≥ 1 year and ≤ 5 years		Cash Flow > 5 year	
		Interest	Capital refund	Interest	Capital refund	Interest	Capital refund
Derivative instruments							
Assets							
Fair value of derivatives (assets)	137.3	22.5	525.5	42.0	841.9	9.3	265.7
Liabilities							
Fair value of derivatives (liabilities)	(106.5)	(41.3)	(505.8)	(74.2)	(802.7)	(12.3)	(267.5)
SUB-TOTAL DERIVATIVE INSTRUMENTS		(18.8)	19.7	(32.2)	39.2	(3.0)	(1.8)
Assets							
Loans and other non-current receivables	306.6				306.6		
Trade receivables	2,694.1		2,674.3		19.8		
Cash and cash equivalents	2,246.6	0.6	2,246.0				
SUB-TOTAL ASSETS		0.6	4,920.3		326.4		
Liabilities							
Non-current borrowings	(10,506.3)	(190.5)		(562.2)	(5,215.3)	(617.2)	(5,226.5)
Other non-current liabilities	(343.0)				(343.0)		
Trade payables	(3,333.2)		(3,290.4)		(42.8)		
Current borrowings	(2,188.6)	(21.0)	(2,083.4)				
SUB-TOTAL LIABILITIES		(211.5)	(5,373.8)	(562.2)	(343.1)	(617.2)	(5,226.5)

Cash and cash equivalents decreased at the end of 2022. The carrying amount of financial borrowings strongly decreased compared to 2021.

e) Hierarchy of financial instruments fair value

<i>(in millions of euros)</i>	2021	2022
Level 1	120.9	87.0
Non-consolidated shares (listed shares)	120.9	87.0
Level 2	30.8	311.5
Derivative instruments	30.8	311.5
Level 3	75.0	76.8
Put options granted to minority shareholders	75.0	76.8

f) Commodity risk (energy contracts)

A portion of Air Liquide's energy supplies, with limited volume commitments, is obtained through forward purchase contracts, at a fixed or indexed price.

IFRS 9 provides for the inclusion within its scope of forward purchases and sales of non-financial assets as soon as these transactions are deemed similar to derivative instruments.

However, IFRS 9 considers that forward contracts for non-financial assets should not be considered as derivatives when they have been entered into to meet the Company's "normal" business requirements, resulting in the delivery upon maturity of the underlying item for use in the Company's industrial process. As Air Liquide does not purchase electricity or natural gas for speculation or arbitrage on commodity price trends purposes, no forward contracts relating to energy meet the definition of a derivative instrument. The contracts enter into as part of the Company's normal business to be used in the industrial process and do not meet the definition of a derivative instrument.

Furthermore, in a global context of highly volatile electricity and natural gas market prices, Air Liquide continues to index long-term

customer contracts to hedge these risks. For natural gas and electricity prices, the opening of some markets led the Group, under these circumstances, to replace the regulated tariffs by local market indices.

Nonetheless, a few contracts remain for which price indexation alone cannot guarantee a total and effective hedge against the risk of energy prices fluctuations. These risks are therefore hedged by Air Liquide, particularly by Air Liquide Finance, using adequate commodity derivatives, which are mainly swaps with maturities of generally less than two years. For contracts for the supply of industrial gas produced from renewable energy, new risks to be taken into account (long-term commitment, fixed price, intermittency, management of environmental certificates, etc.) could lead the Group to make greater use of appropriate hedging instruments.

The fair value recognition of these derivative instruments had no material impact on Group equity or profits as of December 31, 2022.

25.2. INFORMATION ON DERIVATIVE INSTRUMENTS

The Group policy consists in using financial derivatives only when hedging actual financial flows. As a result, the majority of derivative financial instruments used by the Group benefit from hedge accounting. Derivative instruments that do not benefit from hedge accounting are not used for speculative purposes.

Impact of the fair value recognition of derivative instruments on the balance sheet:

2022 (in millions of euros)	IFRS classification	Assets					Liabilities						
		Deferred tax assets	Trade receivables	Fair value of derivatives (assets)		Total	Net income recognized in equity	Profit for the period	Borrowings	Trade payables	Fair value of derivatives (liabilities)		TOTAL
				Assets - non current	Assets - current						Assets - non current	Assets - current	
Foreign exchange risk													
Forwards hedging future cash flows	CFH ^(a)	(0.1)		6.0	68.1	74.0	0.3				6.0	67.7	74.0
Currency forwards hedging transactions recorded in the accounts and Cross Currency Swaps	FVH ^(b)	0.9	3.0	32.6	39.0	75.5	(2.7)	34.6	6.6	23.3	13.7	75.5	
Other derivatives	^(c)						(0.1)				0.1	0.0	
Interest rate risk													
Interest rate swaps	FVH ^(b)												
Swaps, options and Cross Currency Swaps	CFH ^(a) and NIH ^(d)	6.8		2.2	0.5	9.5	(19.4)			28.9	0.0	9.5	
Commodity risk (Energy)													
Forwards hedging future cash flows	CFH ^(a)	6.9				6.9	(14.2)	(2.3)		(3.7)	27.1	6.9	
TOTAL		14.5	3.0	40.8	107.6	165.9	(33.3)	(5.1)	34.6	6.6	54.5	108.6	165.9

(a) CFH: Cash Flow Hedge.

(b) FVH: Fair Value Hedge.

(c) Derivative instruments not benefiting from hedge accounting.

(d) NIH: Net Investment Hedge.

2021 (in millions of euros)	IFRS classification	Assets					Liabilities						
		Deferred tax assets	Trade receivables	Fair value of derivatives (assets)		TOTAL	Net income recognized in equity	Profit for the period	Borrowings	Trade payables	Fair value of derivatives (liabilities)		TOTAL
				Assets - non current	Assets - current						Assets - non current	Assets - current	
Foreign exchange risk													
Forwards hedging future cash flows	CFH ^(a)	(1.6)		3.1	36.7	38.2	3.6				4.9	29.7	38.2
Currency forwards hedging transactions recorded in the accounts and Cross Currency Swaps	FVH ^(b)	0.6	4.7	56.9	25.7	87.9	(1.5)	51.2	2.1	20.9	15.2	87.9	
Other derivatives	^(c)	(0.2)			0.6	0.4	0.4					0.4	
Interest rate risk													
Interest rate swaps	FVH ^(b)												
Swaps, options and Cross Currency Swaps	CFH ^(a) and NIH ^(d)	(1.5)		13.4	0.9	12.8	4.3			8.1	0.4	12.8	
Commodity risk (Energy)													
Forwards hedging future cash flows	CFH ^(a)	8.1				8.1	(18.4)	(0.8)		5.1	22.2	8.1	
TOTAL		5.4	4.7	73.4	63.9	147.4	(10.5)	(1.9)	51.2	2.1	39.0	67.5	147.4

(a) CFH: Cash Flow Hedge.

(b) FVH: Fair Value Hedge.

(c) Derivative instruments not benefiting from hedge accounting.

(d) NIH: Net Investment Hedge.

Note 26 Other liabilities (non-current/current)

26.1. OTHER NON-CURRENT LIABILITIES

<i>(in millions of euros)</i>	2021	2022
Investment grants	89.7	105.5
Advances and deposits received from customers	26.9	29.7
Other non-current liabilities	226.4	182.6
TOTAL OTHER NON-CURRENT LIABILITIES	343.0	317.8

26.2. OTHER CURRENT LIABILITIES

<i>(in millions of euros)</i>	2021	2022
Advances received	375.5	440.0
Deposits received from customers	88.5	81.4
Other payables	1,315.9	1,418.6
Accruals and deferred income	223.0	275.6
TOTAL OTHER CURRENT LIABILITIES	2,002.9	2,215.6

Amounts payable to customers under Engineering & Construction contracts and amounting to 151.3 million euros are included in other current liabilities as of December 31, 2022 (143.9 million euros in 2021).

Note 27 Trade payables

<i>(in millions of euros)</i>	2021	2022
Operating suppliers	2,934.5	3,325.3
Property, plant and equipment and intangible assets suppliers	398.7	457.3
TOTAL TRADE PAYABLES	3,333.2	3,782.6

A suppliers payment platform which aims at facilitating the payment process of suppliers trade payables has been set up in the United States in 2020. The Group has analyzed the main features of the contract according to the principles described in paragraph 6.d of the accounting principles and has concluded that the qualification of trade payables should not be challenged subject to the contract which does not constitute a reverse factoring contract.

Note 28 Related party disclosures

28.1. TRANSACTIONS WITH COMPANIES INCLUDED IN THE SCOPE OF CONSOLIDATION

The Consolidated Financial Statements include the Financial Statements of L'Air Liquide S.A. and all the subsidiaries listed on pages 313 to 315. L'Air Liquide S.A. is the ultimate parent company.

Due to the activities and legal organization of the Group, only executives, associates and joint ventures are considered to be

related parties to the Group. Transactions performed between these individuals or these companies and Group subsidiaries are not material.

Information related to associates and joint ventures is disclosed in note 14.

28.2. REMUNERATION ALLOCATED TO MEMBERS OF THE BOARD OF DIRECTORS AND MANAGEMENT BODIES

The remuneration of Group executives includes the remuneration allocated to the Board of Directors and the Company's management bodies as compensation for their duties within the entire Group as employees and corporate officers for the respective fiscal years.

The Company's management bodies include all the members of Executive Management and the Executive Committee. The amounts expensed in this respect are as follows:

<i>(in thousands of euros)</i>	2021	2022
Short-term benefits	23,955	21,496
Post-employment benefits	2,135	2,151
Termination benefits		414
Share-based payments	9,959	10,376
TOTAL	36,049	34,437

Short-term benefits

Short-term benefits include fixed remuneration, variable remuneration, benefits in kind and attendance fees. The entire variable remuneration portion due for any given year is paid the following year after the Financial Statements have been approved.

The remuneration policy for members of the executive team takes into account market practices. It includes a substantial variable portion depending on the achievement of earnings and individual performance objectives.

Year	Expiry date	Strike price ^(a) (in euros)	Number of rights 2021	Strike price ^(b) (in euros)	Number of rights 2022 ^(b)
2013 (September 26)	09/25/2023	74.06	90,687	67.15	85,084
2014 (September 22)	09/21/2024	77.67	194,646	70.42	102,349
2015 (September 28)	09/27/2025	84.08	125,965	76.23	59,362
2016 (November 29)	11/28/2026	76.47	68,210	69.33	5,561
2017 (September 20)	09/19/2027	85.52	28,092	77.54	1,075
2018 (September 25)	09/24/2028	97.02	26,127	87.97	902
2018 (September 25)			42,111		
2019 (September 30)			87,399		26,948
2020 (September 29)			75,090		62,417
2021 (September 29)			94,230		81,866
2022 (September 29)					98,140

(a) Adjusted for share capital increases by attributions of free shares (2019, 2017, 2014) and for the share capital increase in cash of October 11, 2016.

(b) 2022 data adjusted for the share capital increase by attribution of free shares in 2022.

The fair value of performance shares granted in 2022 is disclosed in note 21.

These amounts are expensed over the lock-in period of the option and performance shares. The amounts that will be recognized in future periods in respect of the granted stock options and performance shares totaled 18,690 thousand euros as of December 31, 2022 (20,515 thousand euros as of December 31, 2021).

Post-employment benefits

Post-employment benefits include the contributions paid to external pension funds. Retirement commitments amounted to 5,063 thousand euros in 2022 and 34,811 thousand euros in 2021.

Share-based payments

Stock options and performance shares granted to Executive Management and to the Executive Committee have the following expiry dates and strike prices:

The 2022 plan performance shares granted to corporate officers and Executive Committee members cannot be exercised unless certain performance conditions are achieved.

No stock options or performance shares were granted to other non-executive Directors under these plans.

Note 29 Commitments

Commitments are given in the normal course of the Group's business.

(in millions of euros)	2021	2022
Firm purchase orders for fixed assets	1,139.2	1,234.7
Other commitments related to operating activities	5,088.3	6,828.5
Commitments relating to operating activities	6,227.5	8,063.2
Commitments relating to financing operations and consolidation scope	220.3	315.4
TOTAL	6,447.8	8,378.6

Air Liquide owns a 13.7% stake in Exeltium S.A.S. amounting to 24.5 million euros.

On March 24, 2010, Exeltium and EDF entered into an industrial partnership agreement under which Exeltium can acquire rights to a portion of EDF's electronuclear production. In consideration, Exeltium and its shareholder clients signed long-term electricity supply contracts. The contract signed by Air Liquide has a 20-year term and can be suspended by Air Liquide after 10 years. This contract provides long-term visibility over the price of the electricity to be supplied. This project was approved by the European Commission.

The Group's energy purchase commitments amounted to 5,442.8 million euros as of December 31, 2022 (2,673.9 million euros as of December 31, 2021). In 2022, the Group has signed significant Power Purchase Agreements. The first one for 15 years duration with Vattenfall in the Netherlands amounting to 402 million euros, and two others with Enel Green Power in South Africa for 392 million euros. Those contracts will start in 2025 and are therefore not yet subject to mutual commitments received from clients in connection with long-term gas supply contracts.

Almost all of these commitments, except the ones mentioned above, are covered by mutual commitments received from clients in connection with long-term gas supply contracts. These commitments are not disclosed in the table above.

Commitments to purchases of molecules as part of take-or-pay contracts amounted to 4,934.1 million euros as of December 31, 2022 (4,158.5 as of December 31, 2021), and are reported in other commitments related to operating activities. These amounts include in particular Helium purchase commitments.

Confirmed credit lines are shown in note 25.

Commitments related to equity affiliates amounted to 368.0 million euros as of December 31, 2022.

Note 30 Contingent liabilities

To the best of the Group's knowledge, there is no exceptional event or litigation which has affected in the recent past or which is likely to materially affect its financial situation or profitability.

Note 31 Climate risks consideration

31.1. BUSINESS MODEL

Air Liquide supplies gas and energy solutions to customers in the metals, chemicals, refining and energy industries, which are essential for their own core businesses, to improve process efficiency and to make their plants more environmentally friendly.

Air Liquide's business model is based on the outsourcing of the industrial gas needs of its customers who often emit greenhouse gases themselves, in particular in the metals, chemicals and refining industries. This outsourcing is justified by Air Liquide's expertise which grants them access to state of the art technologies, optimized energy consumption of production tools, while ensuring the reliability of the supply in the long term. However, it leads to the transfer of a portion of the customer's greenhouse gas emissions to the Group.

Industrial gases are used in most industries today and they will be even more so during the energy transition because they are at the heart of industry decarbonization solutions. Demand will increasingly turn to low-carbon gases, in line with changing regulations.

For the Large Industries activity, which bears most of the assets described below, the supply of gas is contracted for 15 years or more. Such assets are depreciated over the term of the contract, which substantially reduces the risk of impairment. Within these contracts, the Group guarantees long-term service continuity and a high level of reliability with respect to the gas supply via a high-performing industrial solution. In return, long-term gas supply contracts include guaranteed minimum volumes through take-or-pay clauses, as well as the indexation to variable costs (mainly electricity and natural gas), including any CO₂ cost (for example ETS schema in Europe), and inflation.

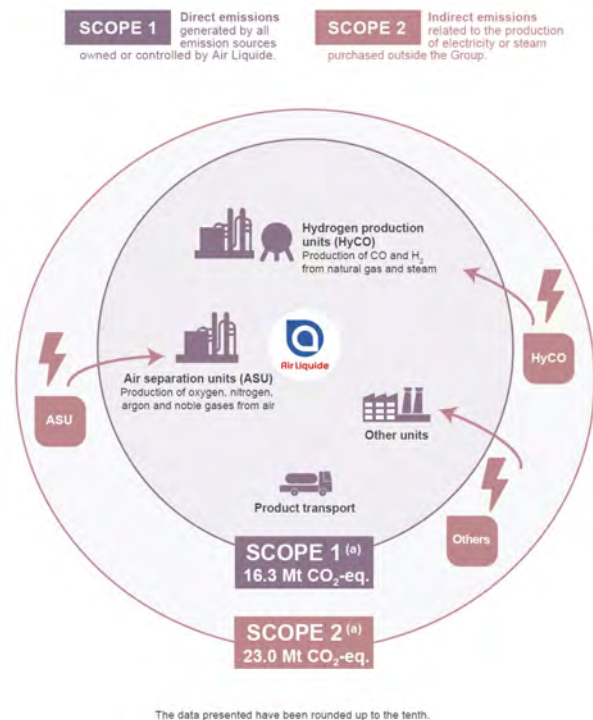
31.2. GROUP'S ASSETS AND CO₂ EMISSIONS

The main Group assets that impact the CO₂ balance are:

- 424 large Air Separation Units (ASU), oxygen and nitrogen in particular, which do not use any combustion processes and consume almost exclusively electrical energy, and therefore do not generate any CO₂ emissions. However, electricity used by the Group to power these units generate CO₂ emissions at electricity suppliers; such emissions are classified as indirect emissions (scope 2). The CO₂ emissions reductions can be in this case done mostly through renewable electricity purchases;

- 62 large hydrogen production units (SMR), which use combustion processes emitting CO₂ based on natural gas consumption; such emissions are classified as direct emissions (scope 1). The reduction of CO₂ emissions is done by using Group's proprietary technology of carbon capture and storage (CCS).

Air Liquide carries out a complete inventory of its greenhouse gas emissions, which are reported according to the different categories recommended by recognized standards such as the GreenHouse Gas (GHG) Protocol. The following schema represents the CO₂ emissions of the Group:



(a) Emissions are reported in million tonnes of CO₂-equivalent using "market-based" methodology

Thus, in 2022, the Group's direct reported emissions (scope 1) and indirect reported emissions (scope 2) amount respectively to 16.3 million tonnes and 23 million tonnes in CO₂-equivalent.

31.3. GROUP'S CLIMATE OBJECTIVES

Air Liquide acknowledges the importance and urgency of climate issues. The Group intends to play an active role in achieving the targets set out in the Paris Agreement, which defines a global framework to avoid dangerous climate change by limiting global warming to well below 2°C compared with the pre-industrial level, and by continuing efforts to limit it to 1.5°C.

In this regard, the Group has committed to achieve carbon neutrality by 2050. Two major intermediate milestones support this long-term objective:

- the start of reduction of absolute CO₂ emissions around 2025;
- followed by a -33% reduction in scope 1 and scope 2 emissions in 2035 compared with a 2020 baseline ⁽¹⁾.

Moreover, the Group has maintained the objective set in 2018 to reduce its carbon intensity by -30% by 2025 compared with 2015 ⁽²⁾.

31.4. TRANSITION RISK – GREENHOUSE GAS EMISSIONS

The main climate risk identified by the Group at the 2022 closing period relates to greenhouse gas emissions.

The climate transition risk (greenhouse gas emissions) is closely linked to the access to renewable electricity sources and implementation by public authorities of greenhouse gas emission reduction policies such as, for example, the introduction of a carbon price or more stringent product regulations, that may impact:

- either the Group's plants (direct impact on the operational scope), resulting in increased production costs, which by contract would be transferred to the customers, and the need for new investments;
- or those of its suppliers, resulting in suppliers price increases;
- or customers (indirect impact on the value chain), impacting for instance their market, processes and industrial gases needs.

The following governance and actions have been implemented to limit the risk on the Group's assets:

- For all its projects, for all geographies, even those without a current price for CO₂, Air Liquide includes in its investment decision process a carbon price of 50 euros per tonne, the local current price and a high value of 100 euros or more per tonne, chosen in function of the geography and context. The Group makes sure that with the price the project is still viable for the customer. As a reminder, any CO₂ cost is contractually passed through to the customer, significantly reducing any impairment risk on the related asset.
- In cases where the public carbon price exceeds a certain cap, contracts with some customers contemplate additional investment to decarbonize the facility (for example by using carbon capture and storage solutions - CCS) and the corresponding additional revenue for the Group.

- The Group's electricity procurement initiatives have been reinforced, in particular the procurement of renewable electricity, in order to reduce the scope 2 emissions figures.
- The trajectory of the climate objectives is centrally managed via a carbon budget allocated to the regions which is revisited every year, in line with intermediary objectives. This trajectory is monitored by the Environment and Society Committee of the Board of Directors, which also meets once a year, in joint sessions with the Audit and Accounts Committee. During this joint session, the two Committees may review the trajectory of climate objectives. The implementation of these climate objectives is part of the criteria for the Long Term Incentive plans for the CEO and for more than 2000 beneficiaries.

Air Liquide's actions to limit transition risk impacts include:

Scope 2 reduction:

- Related to the 424 large air gas production units or ASUs, (scope 2 emissions) mainly by using renewable electricity: the deployment of the Group's actions in the 10 countries with the greatest potential will significantly reduce scope 2 emissions. Since 2018, Air Liquide has already signed 13 renewable energy supply contracts for an estimated annual quantity of 1.724 GWh/y (in a full year after start-up of renewable production units). As the ASUs are almost all electrified, they do not require any specific investment for the transition, because emission reduction will be managed through renewable energy purchase.
- **Energy costs, including renewable energy costs do not represent any financial risk** as they are 100% passed-through to the customer according to the terms of the 15 years or more contracts.

Scope 1 reduction:

- Related to the 62 large hydrogen production units or SMRs, (scope 1 emissions), by capturing CO₂. Air Liquide masters a complete portfolio of proprietary technologies for capturing CO₂. Thus, advanced Cryocap™ CO₂ capture technology equipment has been in industrial operation since 2015 on a hydrogen production unit in France. The Group was recently selected for financing via European subventions for two carbon capture projects on SMRs. Thus, the decarbonization of the Group's 10 largest SMRs will reduce scope 1 emissions by more than 40%. **No dismantling of existing SMRs before the end of the contract is necessary to achieve the Group's climate objectives.**
- The innovation capacity and technological know-how of Air Liquide's teams enable the Group to offer cleaner and more sustainable solutions to reduce its own emissions and those of its industrial customers. The Group focuses on technologies for climate solutions and energy transition. In 2022, Air Liquide had more than 350 patent families on hydrogen. The Group's Innovation expenses amounted to 308 million euros in 2022, including more than 100 million dedicated to climate solutions.

⁽¹⁾ In tonnes of CO₂-equivalent for Scopes 1 and 2, in a "market-based" methodology, restated, from 2020 and each subsequent year, to include the emissions of the assets for the full year, taking into account (upwards and downwards) changes in scope having a significant impact on CO₂ emissions.

⁽²⁾ In kg CO₂-equivalent/euro of current operating income before depreciation and amortization and excluding IFRS 16 at 2015 exchange rates on Scopes 1 and 2 of greenhouse gas emissions in a "market-based" methodology.

- The demand for low-carbon industrial gas at a higher price is growing and makes it possible **to remunerate the investment necessary for the decarbonization of Air Liquide's assets**, in particular for the production of hydrogen, as well as any additional costs linked to the supply of renewable electricity. In addition, financing programs in the form of subsidies or tax credits are also implemented in Europe and more recently in the United States in order to support, during a transition period, the decarbonization of existing industrial assets and new units of production. **Therefore, there is no indication of impairment for the related assets.**
- **Costs related to CO₂ emissions** (ex ETS scheme in Europe) are **100% passed-through to the customer** according to the terms of the 15 years or more contracts. The Group also applies this business model to the supply of low carbon industrial gas, therefore **Air Liquide does not bear the risk associated with energy and CO₂ costs.**

The potential impacts of transition risk have been analyzed in the context of the 2022 Group's Financial Statements closing, based on the above mentioned facts and assumptions. **No significant impact has been identified, either on the useful life or on the value of the assets, on the client portfolio or on the cash flows generated by existing activities or on provisions for risks and charges.**

31.5. PHYSICAL RISKS

Air Liquide operates in certain regions of the world exposed to changes (in amplitude or frequency) in exceptional meteorological phenomena due to climate change. These phenomena can slow down or interrupt the Group's operations or make them more expensive. Its suppliers and customers are also confronted with this same issue.

These can be broken down into:

- acute risks triggered by events such as natural disasters, the frequency and severity of which are increasing: storms, hurricanes, flooding, etc. These risks may relate to Air Liquide sites located near the coast for example, or in regions affected by hurricanes (the US Gulf Coast, South Asia, etc.);

- chronic risks related to more long-term changes in climate models and rising temperatures: rising sea levels, chronic heat waves in certain regions, changes in rainfall patterns and an increase in their variability, the disappearance of certain resources, etc.

Air Liquide's actions to limit physical impacts include:

- Physical risks (water availability, frequency of extreme events, etc.) are appraised during the review of investment requests, in the same way as financial criteria, to ensure that the associated risk management measures are adapted, for example in the design of equipment.
- Group operations which are regularly exposed to the acute risks described above have risk management systems in place aimed at adopting suitable preventive operational measures, and at managing these crises by, first and foremost, protecting individuals and the production facilities in close cooperation with customers. These systems are regularly updated and improved.
- Chronic risks are taken into account, in particular in the design of production units, in the same way and to the same extent as their energy efficiency and carbon footprint.
- Losses caused by natural disasters are covered by the Group property and business interruption program.
- The potential impacts on the 2022 Group's Financial Statements of the physical risks has been studied. No significant impact has been identified, either on the useful life or on the value of the assets, on the client portfolio or on the cash flows generated by existing activities or on provisions for risks and charges.

To be noted for both transition risks and physical risks, there is no impact on the dismantling provision, as this is an obligation already presented and provisioned from the date of the Large Industries contract signature.

Note 32 Post-balance sheet events

There are no significant post-balance sheet events

Foreign exchange rates and main consolidated companies

FOREIGN EXCHANGE RATES

Main foreign exchange rates used

Average rates

Euros for 1 currency	2021	2022
USD	0.85	0.95
CNY	0.13	0.14
CAD	0.67	0.73
Yen (1,000)	7.70	7.26

Closing rates

Euros for 1 currency	2021	2022
USD	0.88	0.94
CNY	0.14	0.14
CAD	0.69	0.69
Yen (1,000)	7.67	7.11

MAIN CONSOLIDATED COMPANIES

Companies marked with JO are consolidated by joint operation and those marked with E by the equity method. Other companies are fully consolidated.

The total Group interest is given after the name of each company.

Main consolidated companies	Country	Integration	% interest
GAS AND SERVICES			
EUROPE			
Air Liquide Austria GmbH	AUT		100.00%
L'Air Liquide Belge S.A.	BEL		100.00%
Air Liquide Industries Belgium S.A.	BEL		100.00%
Air Liquide Large Industry S.A.	BEL		100.00%
Air Liquide Medical S.A.	BEL		100.00%
Air Liquide Bulgaria EOOD	BGR		100.00%
Carbagas S.A.	CHE		100.00%
Air Liquide Deutschland GmbH	DEU		100.00%
Air Liquide Electronics GmbH	DEU		100.00%
Air Liquide Industriegase GmbH & Co. KG	DEU		100.00%
Energieversorgungscener Dresden-Wilschdorf GmbH & Co. KG ^(a)	DEU		40.00%
VitalAire GmbH	DEU		100.00%
Zweite Energieversorgungscener Dresden-Wilschdorf GmbH & Co. KG	DEU		50.00%
Häusliche Intensiv Pflege Althoff GmbH	DEU		100.00%
Air Liquide Danmark A/S	DNK		100.00%
Air Liquide España S.A.	ESP		99.90%
Air Liquide Ibérica de Gases S.L.U.	ESP		100.00%
Air Liquide Healthcare España, S.L.U.	ESP		100.00%
Air Liquide Finland Oy.	FIN		100.00%
Air Liquide Eastern Europe S.A.	FRA		100.00%
Air Liquide France Industrie S.A	FRA		100.00%
Air Liquide Medical Systems S.A.	FRA		100.00%
Air Liquide Réunion S.A.	FRA		97.35%
Air Liquide Santé (International) S.A.	FRA		100.00%
Air Liquide Santé France S.A.	FRA		100.00%
Air Liquide Spatial Guyane S.A.	FRA		98.79%
Air Liquide Ukraine S.A.	FRA		100.00%
Extraction Purification Innovation France	FRA		100.00%
LVL Médical Groupe S.A.	FRA		100.00%
Pharma Dom S.A.	FRA		100.00%
Société d'Exploitation de Produits pour les Industries Chimiques S.A.	FRA		99.98%
Air Liquide Antilles Guyane	FRA		96.76%
VitalAire S.A.	FRA		100.00%

Main consolidated companies	Country	Integration	% interest
Air Liquide Ltd	GBR		100.00%
Air Liquide (Homecare) Ltd	GBR		100.00%
Air Liquide UK Ltd	GBR		100.00%
Energas Ltd	GBR		100.00%
SPL Services Limited	GBR		98.02%
Air Liquide Italia S.p.A.	ITA		99.77%
Air Liquide Italia Service S.r.l	ITA		99.77%
Air Liquide Sanità Service S.p.A.	ITA		99.77%
Air Liquide Italia Produzione S.r.l	ITA		99.77%
Medicasa Italia S.p.A.	ITA		99.77%
VitalAire Italia S.p.A.	ITA		99.77%
Supra S.R.L	ITA		51.00%
Air Liquide Healthcare Ireland Limited	IRL		100.00%
Air Liquide Munay Tech Gases	KAZ		75.00%
L'Air Liquide Luxembourg S.A.	LUX		100.00%
Air Liquide Acetylene B.V.	NLD		100.00%
Air Liquide B.V.	NLD		100.00%
Air Liquide Industrie B.V.	NLD		100.00%
Air Liquide Nederland B.V.	NLD		100.00%
Scott Specialty Gases Netherlands B.V.	NLD		100.00%
Hatek Lastechniek NH B.V.	NLD		100.00%
Handelsonderneming Hatek B.V.	NLD		100.00%
Air Liquide Norway A.S.	NOR		100.00%
BetaMed S.A.	POL		80.00%
Air Liquide Katowice Sp.z.o.o.	POL		79.25%
Air Liquide Polska Sp.z.o.o.	POL		100.00%
Air Liquide Medicinal S.A.	PRT		99.85%
Sociedade Portuguesa do Ar Liquido Lda	PRT		99.93%
Air Liquide Romania S.r.l	ROM		100.00%
Air Liquide Gas A.B.	SWE		100.00%
NordicInfu Care A.B	SWE		100.00%
Air Liquide Gaz San. Ve Tic. A.S.	TUR		100.00%

Main consolidated companies	Country	Integration	% interest
AMERICAS			
Air Liquide Argentina S.A.	ARG		100.00%
Air Liquide Brasil Ltda	BRA		100.00%
Air Liquide Canada, Inc.	CAN		100.00%
Vitalaire Canada, Inc.	CAN		100.00%
Respiratory Homecare Solutions Canada Inc.	CAN		100.00%
Air Liquide Chile S.A.	CHL		100.00%
Air Liquide Colombia S.A.S	COL		100.00%
Air Liquide Dominicana S.A.S	DOM		100.00%
Air Liquide Mexico, S. de RL de CV	MEX		100.00%
La Oxigena Paraguaya S.A.	PRY		87.96%
Air Liquide Trinidad and Tobago Ltd	TTO		100.00%
Air Liquide Uruguay S.A.	URY		96.68%
Airgas USA, LLC	USA		100.00%
Airgas Specialty Products	USA		100.00%
Red-D-Arc, Inc.	USA		100.00%
Airgas Safety, Inc.	USA		100.00%
Air Liquide Electronics U.S. LP	USA		100.00%
Air Liquide Large Industries U.S. LP	USA		100.00%
Air Liquide Advanced Materials, Inc.	USA		100.00%
MIDDLE-EAST AND AFRICA			
Air Liquide Afrique S.A.	FRA		100.00%
Air Liquide Middle East & North Africa FZCO	ARE		100.00%
Air Liquide Gulf FZE	ARE		100.00%
Air Liquide Bénin S.A.	BEN	E	99.99%
Air Liquide Burkina Faso S.A.	BFA		64.87%
Air Liquide Botswana Proprietary Ltd	BWA		99.93%
Air Liquide Côte d'Ivoire S.A.	CIV		72.08%
Air Liquide Cameroun S.A.	CMR		100.00%
Air Liquide Congo S.A.	COG		100.00%
Société d'Installations et de Diffusion de Matériel Technique S.P.A.	DZA	E	100.00%
Air Liquide Alexandria for Medical & Industrial Gases S.A.E.	EGY		99.99%
Air Liquide El Soukhna for Industrial Gases S.A.E.	EGY		99.93%
Air Liquide Misr S.A.E.	EGY		100.00%

Main consolidated companies	Country	Integration	% interest
Air Liquide Middle East S.A.	FRA		100.00%
Air Liquide Gabon S.A.	GAB		99.04%
Air Liquide Ghana Ltd	GHA		100.00%
Air Liquide India Holding Pvt. Ltd	IND		100.00%
Shuaiba Oxygen Company K.S.C.C. ^(a)	KWT		49.81%
Air Liquide Maroc S.A.	MAR		98.02%
Air Liquide Madagascar S.A.	MDG		73.74%
Air Liquide Mali S.A.	MLI		99.97%
Air Liquide Namibia Proprietary Ltd	NAM		100.00%
Air Liquide Nigeria Plc	NGA		87.31%
Air Liquide Sohar Industrial Gases LLC	OMN		50.10%
Gasal Q.S.C.	QAT	E	40.00%
Vitalaire Arabia LLC.	SAU		60.00%
Air Liquide Arabia LLC	SAU		65.00%
Air Liquide Sénégal S.A.	SEN		83.60%
Air Liquide Togo S.A.	TGO	MEQ	70.57%
Air Liquide Tunisie S.A.	TUN		59.17%
Air Liquide Large Industries (Pty) Ltd	ZAF		100.00%
Air Liquide Large Industries South Africa (Pty) Ltd	ZAF		100.00%
Air Liquide Proprietary Ltd	ZAF		99.93%
ASIE-PACIFIQUE			
ASIA PACIFIC		AUS	100.00%
Air Liquide Healthcare P/L	AUS		100.00%
Air Liquide W.A. Pty Ltd	AUS		100.00%
Brunei Oxygen SDN	BHD		50.00%
Air Liquide Cangzhou Co., Ltd	CHN		100.00%
Air Liquide China Holding Co., Ltd	CHN		100.00%
Air Liquide Shanghai Co., Ltd	CHN		100.00%
Air Liquide Shanghai International Trading Co. Ltd	CHN		100.00%
Air Liquide Tianjin Co., Ltd	CHN		100.00%
Air Liquide Yongli Tianjin Co., Ltd	CHN		55.00%
Air Liquide Zhangjiagang Industrial Gases Co., Ltd	CHN		100.00%
Shanghai Chemical Industry Park Industrial Gases Co., Ltd	CHN		51.00%
Société d'Oxygène et d'Acétylène d'Extrême-Orient S.A.	FRA		100.00%

(a) Consolidation method differs from percentage of shares due to a contractual agreement.

Main consolidated companies	Country	Integration	% interest
Celki International Ltd	HKG		100.00%
P.T. Air Liquide Indonesia	IDN		100.00%
Air Liquide Japan Ltd	JPN		100.00%
Toshiba Nano Analysis K.K.	JPN		51.00%
Sohgo Industry Co., Ltd	JPN		90.23%
Vital Air Japan K.K.	JPN		100.00%
Air Liquide Korea Co., Ltd	KOR		100.00%
VitalAire Korea Inc.	KOR		100.00%
Southern Industrial Gas Sdn Bhd	MYS		100.00%
Air Liquide Malaysia Sdn Bhd	MYS		100.00%
Air Liquide New Zealand Ltd	NZL		100.00%
Air Liquide Phils Inc.	PHL		100.00%
Air Liquide Singapore Pte Ltd	SGP		100.00%
Air Liquide Thailand Ltd	THA		100.00%
Air Liquide Electronics Systems Asia Ltd	TWN		100.00%
Air Liquide Far Eastern Ltd	TWN		65.00%
Air Liquide Vietnam Co., Ltd	VNM		100.00%
ENGINEERING & CONSTRUCTION			
Air Liquide Global E&C Solutions Canada LP	CAN		100.00%
Air Liquide Hangzhou Co., Ltd	CHN		100.00%
Air Liquide Global E&C Solutions (Yantai) Co., Ltd.	CHN		100.00%
Air Liquide Global E&C Solutions Germany GmbH	DEU		100.00%
Air Liquide Global E&C Solutions France S.A.	FRA		100.00%
Air Liquide Global E&C Solutions Japan K.K.	JPN		100.00%
JJ-Lurgi Engineering Sdn. Bhd.	MYS	E	50.00%
Air Liquide Global E&C Solutions Singapore Pte. Ltd	SGP		100.00%
Air Liquide Global E&C Solutions US, Inc.	USA		100.00%

Main consolidated companies	Country	Integration	% interest
GLOBAL MARKETS & TECHNOLOGIES			
Air Liquide Advanced Technologies US LLC	USA		100.00%
Alizent France S.A.	FRA		100.00%
Air Liquide Advanced Technologies S.A.	FRA		100.00%
Cryolor S.A.	FRA		100.00%
GIE Cryospace	FRA		55.00%
Air Liquide Electronics Systems S.A.	FRA		100.00%
FordonsGas Sverige AB	FRA		100.00%
Air Liquide Maritime SAS	FRA		100.00%
The Hydrogen Company	FRA		100.00%
Oilfield Hire and Services	GBR		100.00%
HOLDING COMPANIES AND R&D ACTIVITIES			
Air Liquide Finance S.A.	FRA		100.00%
Air Liquide International S.A.	FRA		100.00%
Air Liquide Participations S.A.	FRA		100.00%
L'Air Liquide S.A.	FRA		100.00%
Orsay-Re S.A.	LUX		100.00%
Air Liquide International Corp.	USA		100.00%
American Air Liquide, Inc.	USA		100.00%
American Air Liquide Holdings, Inc	USA		100.00%

The extended list of consolidated companies is available on:
<https://www.airliquide.com/consolidation-scope-2022>

Statutory auditors' offices and fees

STATUTORY AUDITORS' OFFICES

KPMG S.A.

Principal Statutory Auditor

KPMG S.A. is represented by
Valérie Besson and Laurent Genin
Tour Eqho - 2, avenue Gambetta - CS60055
92066 Paris-La Défense

PricewaterhouseCoopers Audit

Principal Statutory Auditor

PricewaterhouseCoopers Audit is represented by
Olivier Lotz and Cédric Le Gal
63, rue de Villiers
92200 Neuilly-sur-Seine

STATUTORY AUDITORS' FEES

<i>(in thousands of euros)</i>	2022							
	KPMG S.A.		PricewaterhouseCoopers Audit		Others		Total	
Audit, certification, review of individual and consolidated financial statements	5,260	80.7%	7,017	87.5%	566	61.8%	12,843	83.1%
■ Issuer	627		764		—		1,391	
■ Fully consolidated subsidiaries	4,633		6,253		566		11,452	
<i>of which Airgas</i>	—		1,767		10		1,777	
Services required by law	30	0.5%	67	0.8%	11	1.2%	108	0.7%
Total of certification missions and services required by law	5,290	81.2%	7,084	88.3%	577	63.0%	12,951	83.8%
Services related to Corporate Social Responsibility (CSR)	—	—	142	1.8%	—	—	142	0.9%
Due-diligence services (sell-side and buy-side)	38	0.6%	247	3.1%	2	0.2%	287	1.9%
Other services	1,189	18.2%	551	6.9%	337	36.8%	2,077	13.4%
Total of non-audit services	1,227	18.8%	940	11.7%	339	37.0%	2,506	16.2%
TOTAL	6,517	100%	8,024	100%	916	100%	15,457	100%

<i>(in thousands of euros)</i>	2021							
	ERNST & YOUNG and others		PricewaterhouseCoopers Audit		Others		Total	
Audit, certification, review of individual and consolidated financial statements	5,232	91.5%	6,817	93.7%	652	63.1%	12,701	90.6%
■ Issuer	632		658		—		1,290	
■ Fully consolidated subsidiaries	4,600		6,159		652		11,411	
<i>of which Airgas</i>	11		1,410		63		1,484	
Services required by law	54	0.9%	78	1.1%	3	0.3%	135	1.0%
Total of certification missions and services required by law	5,286	92.4%	6,895	94.8%	655	63.3%	12,836	91.5%
Services related to Corporate Social Responsibility (CSR)	—	—	139	1.9%	—	—	139	1.0%
Due-diligence services (sell-side and buy-side)	—	—	—	—	48	4.6%	48	0.3%
Other services	432	7.6%	240	3.3%	331	32.0%	1,003	7.2%
Total of non-audit services	432	7.6%	379	5.2%	379	36.7%	1,190	8.5%
TOTAL	5,718	100%	7,274	100%	1,034	100%	14,026	100%

Statutory Auditors' Report on the Consolidated Financial Statements

This is a translation into English of the Statutory Auditors' report on the consolidated financial statements of the Company issued in French and it is provided solely for the convenience of English speaking users. This Statutory Auditors' report includes information required by European regulation and French law, such as information about the appointment of the Statutory Auditors or verification of the information concerning the Group presented in the Management Report and other documents provided to shareholders.

This report should be read in conjunction with, and construed in accordance with, French law and professional auditing standards applicable in France.

To the Annual General Meeting of L' Air Liquide,

OPINION

In compliance with the engagement entrusted to us by your Annual General Meeting, we have audited the accompanying consolidated financial statements of L'Air Liquide ("the Group") for the year ended December 31, 2022.

In our opinion, the consolidated financial statements give a true and fair view of the assets and liabilities and of the financial position of the Group as at December 31, 2022 and of the results of its operations for the year then ended in accordance with International Financial Reporting Standards (IFRS) as adopted by the European Union.

The audit opinion expressed above is consistent with our report to the Audit and Accounts Committee.

BASIS FOR OPINION

Audit Framework

We conducted our audit in accordance with professional standards applicable in France. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Our responsibilities under those standards are further described in the Statutory Auditors' Responsibilities for the Audit of the Consolidated Financial Statements section of our report.

Independence

We conducted our audit engagement in compliance with independence requirements of the French Commercial Code (Code de commerce) and the French Code of Ethics (Code de déontologie) for statutory auditors, for the period from January 1, 2022 to the date of our report and specifically we did not provide any prohibited non-audit services referred to in Article 5(1) of Regulation (EU) No 537/2014.

JUSTIFICATION OF ASSESSMENTS – KEY AUDIT MATTERS

In accordance with the requirements of Articles L.823-9 and R.823-7 of the French Commercial Code (Code de commerce) relating to the justification of our assessments, we inform you of the key audit matters relating to risks of material misstatement that, in our professional judgment, were of most significance in our audit of the consolidated financial statements of the current period, as well as how we addressed those risks.

These matters were addressed in the context of our audit of the consolidated financial statements as a whole and in forming our opinion thereon, and we do not provide a separate opinion on specific items of the consolidated financial statements.

Large Industries activity: qualification of the contracts and related revenue recognition method

Risk identified

The gas supply of the Large Industries activity is based on long term contracts with a limited number of customers and requires significant industrial investments.

As described in note "3.a. Revenue recognition – Gas & Services" of the accounting principles section of the consolidated financial statements, these investments are usually made to share production capacity with the other business lines of the Group, particularly the Industrial Merchant business or to serve customers connected to pipelines in an industrial region. In such cases, Group management considers that those assets are not identified as defined in the standard IFRS 16 "Leases".

When assets used for the long term supply agreements are dedicated to a customer, the Group considers that it retains the right to direct the use of these assets as defined in the standard IFRS 16. Accordingly, gas supply agreements linked to those assets are not considered as leases. These industrial investments continue to be controlled by the Group and are recorded as property, plant and equipment, the full amounts received for the contracts being, otherwise, recognized as revenue.

Customers of the Large Industries business simultaneously receive and consume the benefits granted by the gas supply service or its availability. As a result, the revenue recognition related to these contracts occurs when the gas is supplied or when the reserved capacity is made available.

As described in note 31 "Climate risk consideration" to the consolidated financial statements, long term gas supply contracts include guaranteed minimum volumes through take-or-pay clauses, as well as the indexation to variable costs (mainly electricity and natural gas), including any CO₂ cost, and inflation.

Due to the complexity of those contracts and the impact on the Group's consolidated financial statements of the judgments made when the contract is signed or in case of subsequent significant modifications, and of the execution of contractual clauses such as indexation

clauses to variable costs, we have considered the qualification of Large Industries long term contracts and related revenue recognition criteria as a key audit matter.

Our response

Our procedures consisted notably in:

- understanding the criteria to qualify the Large Industries long term contracts applied by the Group, considering in particular the specific nature of the underlying assets;
- understanding internal control procedures implemented by the Group to confirm the compliance of the accounting treatment applied to these contracts with IFRS 15 “Revenue from Contracts with Customers” and IFRS 16 “Leases”;
- verifying the compliance of the accounting treatment applied to Large Industries long term contracts with IFRS 15 and IFRS 16;
- assessing the application of existing contractual indexation clauses, through an understanding of the Revenue process, including relevant controls, and performing substantive testing on a sample of revenue transactions;
- assessing the appropriateness of the disclosure included in note “3.a. Revenue recognition – Gas Services” of the accounting principles section of the notes to the consolidated financial statements.

Large Industries activity: useful lives of production units and measurement of their recoverable amount

Risk identified

As at December 31, 2022, the net book value of property, plant and equipment amounts to 23, 647 million euros, or 47,8% of the Group total assets, that include the significant industrial investments to execute the customer agreements of the Large Industries activity. As disclosed in note “5.e. Property, plant and equipment” of the accounting principles section of the consolidated financial statements, Large Industries production units are depreciated on a straight-line basis over their estimated useful life, usually 15 to 20 years. The estimated useful lives are reassessed on a regular basis and the resulting change in estimates, if any, are recorded on a prospective basis.

In addition, the Group can be exposed to certain risks specific to industrial investments. Expected returns on investment and their recoverable value can, for example, be adversely impacted by events such as the economic context, overruns and construction delays, start-up conditions, technology changes, geographical location, counterparty risk or the need for new investments in order to meet an increasing demand for low-carbon industrial gases. New investments may also be required to meet the Group objectives and commitments to achieve carbon neutrality.

As disclosed in note “5.f. Impairment of assets” of the accounting principles section of the consolidated financial statements, Group management determines on a regular basis whether asset impairment indicators exist. If a triggering event is identified, an impairment test is performed to confirm whether the net book value of the asset exceeds its recoverable value. These principles lead the Group to test production assets (either individually or within the cash generating unit to which they are attached), in particular in case of significant start-up delays, project termination, significant decrease in expected business volumes, early termination or non-renewal of related customer contracts, obsolescence of assets in the context of the energy transition.

The measurement of the recoverable value of the equipment relies on significant estimates relating to the Group’s capacity to generate future cash-flows, re-use certain equipment for other internal or external customers, to sell the assets, or to obtain indemnification, notably from customers, or subsidies

Due to the significant value of each production asset and the cumulative value of these assets, the key assumptions used to assess their useful life, their re-use or the compensation to be received, we have considered the useful life and measurement of the recoverable value of Large Industries production assets as a key audit matter.

Our response

Our procedures consisted notably in:

- understanding the procedures performed by the Group to assess and update the depreciation period of the equipment;
- assessing the consistency of their useful lives with contractual terms and available internal technical studies;
- analyzing the Group’s process to identify impairment indicators;
- understanding the work carried out by the Group to determine the recoverable values of the plants, including key assumptions and estimates used to determine the future cash flows;
- assessing the accounting translation of impairment losses resulting from the determination of recoverable values;
- assessing, with the assistance of our experts in climate change and energy transition, the impact of climate change and energy transition on the financial statements, in order to corroborate the Group’s assessment that its climate strategy has not resulted in any material impact, neither on the useful life nor on the recoverable value of Large Industries production assets;
- assessing the absence of obvious inconsistencies between the consolidated financial statements and the Group’s other publications addressing the issues related to climate change (Management report, the Universal Registration Document);
- verifying the appropriateness of the disclosure included in note “5.e. Property, plant and equipment” and note “5.f. Impairment of assets” of the accounting principles section of the consolidated financial statements and note 31 “Climate risk consideration” to the consolidated financial statements.

Impairment test of goodwill

Risk identified

In connection with its external growth strategy, the Group monitors the related goodwill at the level of group of cash generating units. For the Gas & Services activity, goodwill are mostly allocated on a geographical basis. For the world business units Engineering & Construction and Global Markets & Technologies, goodwill is monitored at the business unit level. As at December 31, 2022, goodwill amounts to a net book value of 14,587 million euros (29,5% of the Group total assets).

The Group performs annually, an impairment test, by reference to market values. Insofar as the fair value is not significantly greater than the net carrying amount of the cash-generating unit or group of cash-generating units, the Group confirms the recoverable amount of the cash-generating unit or group of cash-generating units using the estimated cash flow approach (value in use) as described in note "5.f. Impairment of assets" of the accounting principles section of the consolidated financial statements.

The determination of fair value and recoverable value, and the sensitivity to the fluctuation of market multiples and key data and assumptions used, require significant judgement and management estimates, in particular in the context of climate change and energy transition. We have therefore considered the impairment test of goodwill as a key audit matter.

Our response

Our procedures consisted notably in:

- understanding and assessing the principles used to determine the groups of cash generating units;
- analyzing, with the assistance of our valuation experts, principles and methods used to determine the market value and their measurement based on multiples of market capitalization;
- corroborate, on the basis of external data:
 - the results of the Group's impairment tests as of December 31, 2022, and
 - the consideration of both climate risk and challenges and opportunities relating to the energy transition;
- assessing the sensitivity of the result of the impairment tests performed by the Group as at December 31, 2022;
- assessing the appropriateness of the information included in note "10. Goodwill" to the consolidated financial statements.

Specific verifications

We have also performed, in accordance with professional standards applicable in France, the specific verification required by laws and regulations of the Group's information given in the Group's Management report.

We have no matters to report as to their fair presentation and their consistency with the consolidated financial statements.

We attest that the consolidated non-financial statement required by Article L.225-102-1 of the French Commercial Code (Code de commerce) is included in the Group's information given in the Management report, being specified that, in accordance with Article L.823-10 of this Code, we have verified neither the fair presentation nor the consistency with the consolidated financial statements of the information contained therein and the information has to be subject to a report by an independent third party.

REPORT ON OTHER LEGAL AND REGULATORY REQUIREMENTS

Format of the presentation of the Consolidated Financial Statements included in the Annual Financial Report

We have also verified, in accordance with the professional standard applicable in France relating to the procedures performed by the statutory auditor relating to the annual and consolidated financial statements presented in the European single electronic format, that the presentation of the consolidated financial statements included in the annual financial report mentioned in Article L. 451-1-2, I of the French Monetary and Financial Code (code monétaire et financier), prepared under the responsibility of the Chief Executive Officer (Directeur Général), complies with the single electronic format defined in the European Delegated Regulation No 2019/815 of 17 December 2018. As it relates to consolidated financial statements, our work includes verifying that the tagging of these consolidated financial statements complies with the format defined in the above delegated regulation.

Based on the work we have performed, we conclude that the presentation of the consolidated financial statements included in the annual financial report complies, in all material respects, with the European single electronic format.

Due to the technical limitations inherent to the block-tagging of the consolidated financial statements according to the European single electronic format, the content of certain tags of the notes may not be rendered identically to the accompanying consolidated financial statements.

Appointment of the Statutory Auditors

We were appointed as statutory auditors of L'Air Liquide by the Annual General Meeting held on May 12, 2016 for PricewaterhouseCoopers Audit and on May 4, 2022 for KPMG S.A.

As at December 31, 2022, PricewaterhouseCoopers Audit was in its seventh year of uninterrupted engagement and KPMG S.A. in its first year.

RESPONSIBILITIES OF MANAGEMENT AND THOSE CHARGED WITH GOVERNANCE FOR THE CONSOLIDATED FINANCIAL STATEMENTS

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with International Financial Reporting Standards (IFRS) as adopted by the European Union and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless it is expected to liquidate the Company or to cease operations.

The Audit and Accounts Committee is responsible for monitoring the financial reporting process and the effectiveness of internal control and risks management systems and where applicable, its internal audit, regarding the accounting and financial reporting procedures.

The consolidated financial statements were approved by the Board of Directors

STATUTORY AUDITORS' RESPONSIBILITIES FOR THE AUDIT OF THE CONSOLIDATED FINANCIAL STATEMENTS

Objectives and audit approach

Our role is to issue a report on the consolidated financial statements. Our objective is to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with professional standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As specified in Article L.823-10-1 of the French Commercial Code (Code de commerce), our statutory audit does not include assurance on the viability of the Company or the quality of management of the affairs of the Company.

As part of an audit conducted in accordance with professional standards applicable in France, the statutory auditor exercises professional judgment throughout the audit and furthermore:

- identifies and assesses the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, designs and performs audit procedures responsive to those risks, and obtains audit evidence considered to be sufficient and appropriate to provide a basis for his opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control;
- obtains an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the internal control;
- evaluates the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management in the consolidated financial statements;
- assesses the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. This assessment is based on the audit evidence obtained up to the date of his audit report. However, future events or conditions may cause the Company to cease to continue as a going concern. If the statutory auditor concludes that a material uncertainty exists, there is a requirement to draw attention in the audit report to the related disclosures in the consolidated financial statements or, if such disclosures are not provided or inadequate, to modify the opinion expressed therein.
- evaluates the overall presentation of the consolidated financial statements and assesses whether these statements represent the underlying transactions and events in a manner that achieves fair presentation.
- obtains sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. The statutory auditor is responsible for the direction, supervision and performance of the audit of the consolidated financial statements and for the opinion expressed on these consolidated financial statements.

Report to the Audit and Accounts Committee

We submit a report to the Audit and Accounts Committee which includes in particular a description of the scope of the audit and the audit program implemented, as well as the results of our audit. We also report, if any, significant deficiencies in internal control regarding the accounting and financial reporting procedures that we have identified.

Our report to the Audit and Accounts Committee includes the risks of material misstatement that, in our professional judgment, were of most significance in the audit of the consolidated financial statements of the current period and which are therefore the key audit matters that we are required to describe in this report.

We also provide the Audit and Accounts Committee with the declaration provided for in Article 6 of Regulation (EU) N° 537/2014, confirming our independence within the meaning of the rules applicable in France such as they are set in particular by Articles L.822-10 to L.822-14 of the French Commercial Code (Code de commerce) and in the French Code of Ethics (Code de déontologie) for statutory auditors. Where appropriate, we discuss with the Audit and Accounts Committee the risks that may reasonably be thought to bear on our independence, and the related safeguards.

Neuilly-sur-Seine and Paris-La Défense, March 1st, 2023

The Statutory Auditors

French original signed by

PricewaterhouseCoopers Audit

KPMG S.A

Olivier Lotz

Cédric Le Gal

Valérie Besson

Laurent Genin

STATUTORY ACCOUNTS ON THE PARENT COMPANY

Income statement

For the year ended December 31

<i>(in millions of euros)</i>	Notes	2021	2022
Revenue	(2)	96.7	97.5
Royalties and other operating income	(3)	650.8	892.1
Total operating income (I)		747.5	989.6
Purchases		(58.3)	(37.4)
Duties and taxes other than corporate income tax		(22.7)	(19.5)
Personnel expenses		(246.3)	(253.7)
Depreciation, amortization and provision expenses	(5)	(23.6)	(37.9)
Other operating expenses	(4)	(287.1)	(319.5)
Total operating expenses (II)		(638.0)	(668.0)
Net operating profit (loss) (I + II)		109.5	321.6
Financial income from equity affiliates	(6)	795.3	414.1
Interests, similar income and expenses	(6)	3.0	47.2
Other financial income and expenses	(6)	(30.8)	24.6
Financial income and expenses (III)		767.5	485.9
Net profit / (loss) from ordinary activities before tax (I + II + III)		877.0	807.5
Exceptional income and expenses	(7)	93.1	151.0
Statutory employee profit-sharing		(3.2)	(3.9)
Corporate income tax	(8)	(16.0)	(29.9)
NET PROFIT FOR THE YEAR		950.9	924.7

Balance sheet

For the year ended December 31

<i>(in millions of euros)</i>	December 31, 2021		December 31, 2022		
	Notes	Net	Gross carrying amounts	Amortization, depreciation and provisions	Net
ASSETS					
Intangible assets	(9) & (11)	34.1	306.8	(275.5)	31.3
Tangible assets	(9) & (11)	89.7	171.2	(90.5)	80.7
Financial assets	(10) & (11)	13,079.9	13,075.8	(8.2)	13,067.6
TOTAL NON-CURRENT ASSETS		13,203.7	13,553.8	(374.2)	13,179.6
Inventories and work-in-progress	(11)	0.3	1.0	—	1.0
Operating receivables	(11) & (14)	566.9	727.2	(13.0)	714.2
Current account loans with subsidiaries	(11) & (14)	430.0	268.2	—	268.2
Short-term financial investments	(12)	115.5	115.2	—	115.2
Cash and financial instruments		7.6	12.0	—	12.0
Prepaid expenses		3.6	4.7	—	4.7
TOTAL CURRENT ASSETS		1,123.9	1,128.3	(13.0)	1,115.3
Bond redemption premiums		0.1	—	—	—
Unrealized foreign exchange losses		1.4	1.9	—	1.9
TOTAL ASSETS		14,329.1	14,684.0	(387.2)	14,296.8
EQUITY AND LIABILITIES					
Share capital		2,614.1			2,879.0
Additional paid-in capital		2,749.2			2,349.0
Revaluation reserve		23.9			23.9
Legal reserve		260.4			261.3
Other reserves		388.5			388.5
Retained earnings		4,819.0			4,356.8
Net profit for the year		950.9			924.7
Tax-driven provisions		2.8			3.0
TOTAL SHAREHOLDERS' EQUITY	(13)	11,808.8			11,186.2
PROVISIONS	(11)	119.8			55.0
Other bonds	(14)	302.3			302.3
Bank borrowings	(14)	2.0			2.0
Other borrowings	(14)	252.3			251.9
Operating payables	(14)	593.1			630.8
Current account borrowings with subsidiaries	(14)	1,247.5			1,865.2
Deferred income		1.4			1.1
		2,398.6			3,053.3
Unrealized foreign exchange gains		1.9			2.3
TOTAL EQUITY AND LIABILITIES		14,329.1			14,296.8

Notes to the statutory accounts

ACCOUNTING POLICIES

1. General principles

The statutory accounts of the Company L'Air Liquide S.A. have been prepared in accordance with the accounting rules and principles generally accepted in France according to the provisions of the French Chart of Accounts (*Plan Comptable Général*).

The accounting policies for the establishment and presentation of the statutory accounts have been applied in accordance with the principle of prudence and with the following basic assumptions:

- Going concern;
- Consistency of accounting methods from one accounting period to another;
- Separation of each accounting periods.

The method used for the valuation of recorded items is the historical cost method.

Only material information is disclosed.

2. Non-current assets

A. Intangible assets

Internally generated intangible assets primarily include the development costs of information management systems. They are capitalized only if they generate probable future economic benefits and whether there is available appropriate resources (technical, financial and others) to complete the development and use or sell the intangible asset. Internal and external costs corresponding to detailed application design, programming, the performance of tests and the drafting of technical documentation intended for internal or external use are capitalized.

Significant upgrade and improvement costs are added to the initial cost of assets if they specifically meet the capitalization criteria.

Other intangible assets include separately acquired intangible assets such as software, licenses and intellectual property rights and are measured at acquisition cost.

Intangible assets are amortized according to the straight-line method over their estimated useful lives.

B. Tangible assets

Land, buildings and equipment are recognized at historical cost. Interim interest expense is not included in the cost.

Where components of a tangible asset have different useful lives, they are accounted separately and depreciated over their own useful lives.

Depreciation is computed according to the straight-line method over their estimated useful lives as follows:

- buildings: 10 to 30 years;
- equipment: 5 to 20 years.

Land is not depreciated.

C. Impairment of intangible and tangible assets

The Company assesses at each closing date whether there is any indication of impairment loss of intangible and tangible assets. If such indications exist, an impairment test is performed to assess whether the carrying amount of the asset exceeds its present value, which is defined as the greater of its market value and value in use.

In assessing value in use, the estimated future cash flows are discounted to their present value as this would be done for an investment decision.

When the present amount of an asset is lower than its net carrying amount, an impairment loss is recognized in the income statement. When the present value exceeds the carrying amount, the previously recognized impairment is reversed to the income statement.

D. Equity investments

Equity investments are recognized at their initial amount on the entry date, with the exception of those subject to a revaluation as provided by Law 76-1232 of December 29, 1976. Acquisition costs that are not representative of market value are expensed.

When the carrying amount, determined using the criteria normally adopted for the measurement of equity investments (market multiples method based on the Air Liquide Group market valuation, estimated cash flow approach, and net asset value remeasured at fair value), is lower than the book value, an impairment loss is recognized for the difference.

E. Treasury shares

When the Company purchases its own shares, they are recognized at cost as treasury shares in other long-term investment securities. The gains or losses on disposals of treasury shares contribute to the net profit for the year.

However, shares allocated for the purpose of implementing plans for free grants of shares are reclassified to a "Short-term financial investments – Company treasury shares" caption at the balance sheet value on the date of allotment.

A provision is recorded over the rights vesting period to cover the future charge of employees and members of Executive Management of the Company relating to the remittance of current shares when the performance criteria can be determined with reliability. Conversely, the amount corresponding to the maximum performance level is presented in off-balance sheet commitments.

When the purchase cost of shares is higher than their valuation based on the average share price during the last month of the fiscal year, treasury shares earmarked for cancellation or allocated for the purpose of implementing plans for free grants of shares are not impaired.

3. Inventories and work-in-progress

Raw materials, supplies and goods are primarily measured at weighted average cost.

An impairment loss is recognized for inventories and work-in-progress when the estimated realizable amount is lower than cost.

4. Trade receivables and other operating assets

Trade receivables and other operating assets are measured at historical cost.

An impairment loss for receivables is recognized when it becomes probable that the amount due will not be collected and the loss can be reasonably estimated.

5. Foreign currency transactions

Foreign currency transactions are translated at the exchange rate prevailing on the transaction date.

At year-end, the difference arising from the translation of receivables and payables denominated in a foreign currency, are recognized in suspense accounts in assets and liabilities ("Unrealized foreign currency gains or losses").

Where applicable, unrealized foreign exchange losses associated with non-hedged transactions are subject to a contingency provision.

6. Provisions

Provisions are recognized when:

- the Company has a present obligation towards a third party as a result of a past event or an ongoing one;
- it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation;
- a reliable estimate can be made of the amount of the obligation.

7. Financial instruments

L'Air Liquide S.A. applies the ANC regulation n° 2015-05 of July 2, 2015 related to financial forward and hedging instruments.

In accordance with its risk management policy, L'Air Liquide S.A. enters into forward currency purchases or sales in order to hedge the exposure to foreign exchange risk associated with transactions carried out in foreign currencies.

By symmetry, the foreign exchange gains or losses on forward currency purchases or sales is presented at the same time and in the same income statement caption as the hedged item.

Likewise, the unrealized gain from the hedging is presented within the unrealized foreign currency gains or losses statement caption, to offset the exchange differentials related to the revaluation of underlying receivables and debts. When the forward currency purchases or sales, hedge future transactions not yet recorded on the balance sheet, the fair value of these instruments represents an off balance sheet commitment.

Where applicable, when the financial instruments used do not constitute hedging transactions ("isolated open position"), the losses resulting from their year-end market value are provided for in the income statement. In accordance with the principle of prudence, unrealized gains are not recognized in the income statement.

8. Post-employment benefits

The Company applies the ANC recommendation n° 2013-02 of November, 7 2013 amended on November 5, 2021 (2nd method) related to the recognition and measurement of retirement benefits and similar obligations

The Company provides its employees with various pension plans, termination benefits, jubilees (awards based on years of service) and other post-employment benefits for both active employees and retirees. These benefits are covered in two ways:

- by so-called defined contribution plans;
- by so-called defined benefit plans.

The Company grants both defined benefit and defined contribution plans.

Defined contribution plans are plans under which the employer's sole obligation is to pay regular contributions. The employer does not grant any guarantee on the future level of benefits paid to the employee or retiree ("means-based obligation"). The annual

pension expense is equal to the contribution paid during the fiscal year which relieves the employer from any further obligation.

Defined benefit plans are those by which the employer guarantees the future level of benefits defined in the agreement, most often depending on the employee's salary and seniority ("result-based obligation"). Defined benefit plans can be:

- either financed by contributions to a fund specialized in managing the contributions paid;
- or managed internally.

In the case of defined benefit plans, retirement and similar obligations are measured by independent actuaries, according to the projected unit credit method. The actuarial calculations mainly take into account the following assumptions: salary increases, employee turnover, retirement date, mortality, inflation and appropriate discount rates.

Actuarial gains and losses exceeding the greater of 10% of the obligations or 10% of the fair value of plan assets at the beginning of the reporting period are amortized over the expected average working lives of the plan participants.

In accordance with article L.123-13 of the French Commercial Code (Code de Commerce), the Company maintained its previous practices: obligations related to retirement termination payments and jubilees are provided whereas other retirement obligations related to defined benefit plans are not provided but are disclosed in the notes.

9. Revenue recognition

Revenue from the sale of goods is recognized when the risks and rewards of ownership have been transferred to the buyer.

Revenue associated with delivery of services is booked when delivery is completed.

10. Tax consolidation

L'Air Liquide S.A. has set up a tax consolidation group with the French subsidiaries in which it holds a direct or indirect interest exceeding 95%, as defined by article 223-A of the French Tax Code.

Each company calculates its tax provision as if it was taxed separately. L'Air Liquide S.A., as head of the tax consolidation group, recognizes as an expense the tax corresponding to its own profits and recognizes in a balance sheet current tax account the impact of restatements and eliminations when determining taxable profit as a whole and the tax deferrals of subsidiaries with losses. It is booked in exceptional income and expenses according to the Opinion 2005-G of the Emergency Committee of the C.N.C.

11. Research and Development expenditures

Development costs shall be recognized as assets if and only if the Company can demonstrate all of the following:

- the project is clearly identified and the related costs are individualized and reliably monitored;
- the technical and industrial feasibility of the project is demonstrated;
- there is a clear intention to complete the project and use or sell the products arising from it;
- it is probable that the project will generate future economic benefits for the Company.

When these conditions are not satisfied, the work carried out does not systematically result in the completion of an intangible asset that will be available for use or sale, development costs generated are recognized as an expense when incurred.

ADDITIONAL NOTES ON THE BALANCE SHEET AND INCOME STATEMENTS

1. Significant events

Following favorable conclusions released by the European Court of Justice on May 12, 2022, the reserve set up in 2021 to cover the risk of being requested to refund the equalization charge reimbursed to L'Air Liquide S.A. in July 2020 for 56.8 million euros, was reversed in 2022.

Following the dissolution without liquidation of its subsidiary Chemoxal into L'Air Liquide S.A. in accordance with article 1844-5 al. 3 of French Civil Code, the Company recognizes in financial income a 52.7 million euros net income.

2. Revenue breakdown by geographical area

<i>(in millions of euros)</i>	2021	2022
France	53.5	57.4
Abroad	43.2	40.1
REVENUE	96.7	97.5

By the nature of its activities, the revenue of L'Air Liquide S.A. mainly corresponds to services and pension expenses recharged to its subsidiaries (see note 16.A).

3. Royalties and other operating income

In 2022, royalties and other operating income record a sharp increase mainly coming from royalties received from subsidiaries (+230.7 million euros), due to the significant growth in their activities.

Other operating income mainly includes change in inventories of goods and services, production of assets capitalized, operating subsidies, operating expense reclassifications, as well as operating provisions and impairment reversals.

4. Other operating expenses

Other operating expenses primarily consist of research and development costs and other external expenses such as subcontracting and maintenance costs, fees, travel expenses, telecommunication costs and rental expenses.

5. Depreciation, amortization and provision expenses

Depreciation, amortization and provision expenses break down as follows:

<i>(in millions of euros)</i>	2021	2022
Depreciation and amortization expenses	(13.6)	(14.4)
Provision expenses	(10.0)	(23.5)
DEPRECIATION, AMORTIZATION AND PROVISION EXPENSES	(23.6)	(37.9)

6. Financial income and expenses

Financial income from equity affiliates amounts to 414.1 million euros in 2022 (795.3 million euros in 2021). The company Air Liquide Industriegase GmbH & Co. KG distributed in 2021 an exceptional dividend of 225.0 million euros versus 80.5 million euros in 2022.

Interests, similar income and expenses break down as follows:

<i>(in millions of euros)</i>	2021	2022
Revenues from long-term loans and other financial revenues ^(a)	15.3	69.5
Other interest and similar income	(12.3)	(22.3)
INTERESTS, SIMILAR INCOME AND EXPENSES	3.0	47.2

(a) In 2022, revenues from long-term loans and other financial revenues include a 52.7 million euros net income resulted from the dissolution without liquidation of its subsidiary Chemoxal in L'Air Liquide S.A.

Other financial income and expenses amount to 24.6 million euros in 2022 versus -30.8 million euros in 2021. It includes in 2022 the reversal of 24.9 million euros related to the 2021 provision booked for interests on arrears regarding the risk of equalization charge refund (see note 1).

7. Exceptional income and expenses

As part of the tax consolidation of L'Air Liquide S.A. and its consolidated French subsidiaries, an exceptional income of 108.1 million euros was booked in 2022 (128.3 million euros in 2021).

Exceptional income and expenses also include the impact of eliminations related to the tax consolidation regime in the amount of 13.4 million euros in 2022 and 13.8 million euros in 2021.

The 2022 exceptional income and expenses include the reversal of a provision of 31.9 million euros related to the risk of equalization charge refund (interest penalties excluded - see note 1).

8. Corporate income tax

The total tax expense amounts to 29.9 million euros, compared to 16.0 million euros in 2021.

After allocation of add-backs, deductions and tax credits, it breaks down as follows:

<i>(in millions of euros)</i>	2021	2022
Net profit from ordinary activities before tax	(14.6)	(27.8)
Additional contributions on earnings ^(a)	(1.4)	(2.1)
TOTAL	(16.0)	(29.9)

(a) Social security contribution on earnings of 3.3%.

9. Intangible and tangible assets

Changes in gross value break down as follows:

<i>(in millions of euros)</i>	Gross value as of January 1, 2022	Additions	Disposals	Gross value as of December 31, 2022
Concessions, patents, licenses	112.3	8.1	(0.3)	120.1
Other intangible assets	187.0	3.7	(4.0)	186.7
INTANGIBLE ASSETS	299.3	11.8	(4.3)	306.8
Land and buildings	101.2	1.4	(0.4)	102.2
Plant, machinery and equipment	41.3	15.1	(13.3)	43.1
Other tangible assets	17.4	0.4	(0.2)	17.6
Tangible assets under construction and payments on account – tangible assets	15.7	6.6	(14.0)	8.3
TANGIBLE ASSETS	175.6	23.5	(27.9)	171.2
TOTAL	474.9	35.3	(32.2)	478.0

Changes in amortization, depreciation and impairment losses break down as follows:

<i>(in millions of euros)</i>	Amortization, depreciation, and impairment losses as of January 1, 2022	Amortization and depreciation	Decreases, disposals, scrappings	Amortization, depreciation and impairment losses as of December 31, 2022
Intangible assets	(265.2)	(10.6)	0.3	(275.5)
Tangible assets	(85.9)	(5.5)	0.9	(90.5)
Tangible assets	(351.1)	(16.1)	1.2	(366.0)

10. Financial assets

Changes in gross value break down as follows:

<i>(in millions of euros)</i>	Gross value as of January 1, 2022	Increases	Decreases	Gross value as of December 31, 2022
Equity investments	12,481.3	138.4 ^(a)	(200.4) ^(a)	12,419.3
Other long-term investment securities ^(b)	9.5	279.6	(279.3)	9.8 ^(d)
Long-term loans	629.0	60.5 ^(c)	(60.0) ^(c)	629.5
Other long-term financial assets	17.2	—	—	17.2 ^(e)
FINANCIAL ASSETS	13,137.0	478.5	(539.7)	13,075.8

(a) The increase and decrease in equity investments mainly correspond to:

- contributions made under Articles 210.A and B of the Code Général des Impôts (C.G.I.) by Air Liquide France Industrie (ALFI) to Air Liquide Maritime and by Air Liquide Biogas Solutions Europe (ALGBSE) to Air Liquide Biogas Solutions International (ALBGI). Pursuant to Article 115-2 of the C.G.I., the securities received by the companies providing the contributions were awarded free of charge to L'Air Liquide S.A. The book values of these securities on the Company's balance sheet were proportionately allocated in accordance with the doctrine of the tax administration (BOI-IS-FUS-20-40-40), which means an increase in the value of Air Liquide Maritime securities of 4.7 million euros and ALBGI securities of 41.0 million euros offset by a decrease in the value of ALFI securities of -4.7 million euros and ALGBSE of -41.0 million euros.
- the entry of SEPPIC securities for 17.7 million euros and the cancellation of Chemoxal securities for 30.3 million euros following the dissolution without liquidation of its subsidiary Chemoxal into L'Air Liquide S.A. in accordance with article 1844-5 al. 3 of French Civil Code;
- the 75.0 million euros capital increase of the subsidiary Air Liquide Biogas Solutions International;
- the -15.9 million euros share capital reduction in Air Liquide Biogas Solutions Europe;
- the disposal of the investment Air Liquide Biogas Solutions Europe for 106.1 millions d'euros.

(b) The change in other long-term investment securities mainly corresponds to:

- the acquisition and sale of Company treasury shares under the liquidity contract for 120.8 million euros and -120.4 million euros respectively;
- the acquisition of 999,000 of the Company treasury shares (for the purpose of cancellation) for 158.8 million euros;
- the cancellation of 1,098,000 Company treasury shares (including free share attribution of 99,900 treasury shares - see note 13 (b)) and allocated for that for -158.8 million euros.

(c) "Long-term loans" movements mainly include a 60 million loan coming from Chemoxal financial statements in January 2022 and following its dissolution without liquidation into L'Air Liquide S.A. This loan was reimbursed in June 2022 to the company Air Liquide Finance.

At the 2022 year-end:

(d) "Other long-term investment securities" includes 10,500 shares held under the liquidity contract in an amount of 1.4 million euros;

(e) "Other long-term financial assets" mainly includes the receivable linked to the refund claim on the equalization charge paid for the years 2000 to 2004 for 9.5 million euros and the interest on arrears for 6.6 million euros.

11. Impairment, allowances and provisions

A. Impairment and allowances

Impairment and allowances are recognized when the asset's carrying amount is lower than its entry value.

They break down as follows:

<i>(in millions of euros)</i>	2021	Charges / Increase	Reversals / Decrease	2022
Intangible and tangible assets	(4.3)	(1.9)	—	(6.2)
Equity investments	(48.8)	—	48.8	—
Other long-term investment securities	(8.3)	—	0.1	(8.2)
Inventories and work-in-progress	(0.7)	—	0.7	—
Operating receivables	(5.9)	(7.1)	—	(13.0)
IMPAIRMENT AND ALLOWANCES	(68.0)	(9.0)	49.6	(27.4)
<i>Whose charges and reversals:</i>				
operating items		(9.0)	0.7	
financial items		—	47.4	
exceptional items		—	—	

Charges and reversals mainly relate to impairment of equity investments.

B. Provisions

Provisions mainly include:

- foreign exchange provisions;
- third party or employee contingency and litigation provisions;
- jubilee awards and vested rights with regard to retirement benefits (30.0 million euros in 2022 and 29.8 million euros in 2021).

<i>(in millions of euros)</i>	2021	Charges	Reversals	2022
Provisions for contingencies	78.7	2.7	(71.3)	10.1
Provisions for losses	41.1	12.6	(8.8)	44.9
PROVISIONS	119.8	15.3	(80.1)	55.0
<i>Whose charges and reversals:</i>				
	<i>operating items</i>	14.5	(10.0)	
	<i>financial items</i>		(24.9)	
	<i>exceptional items</i>	0.8	(45.2)	

Charges mainly relate to provisions for jubilee awards and vested rights with regard to retirement termination payments for 2.3 million euros and provisions to cover the future charge of the remittance of performance shares for 10.3 million euros.

Reversals primarily consist in the release of the provision booked in 2021 to cover the risk of refund of the equalization charge, reimbursed to L'Air Liquide S.A. in July 2020 for 56.8 million euros. This reversal follows favourable conclusions on May, 12th 2022 from the Court of Justice of the European Union. The other reversals also include the utilization of -13 million euros provision relating to a R&D project with significantly reduced market potential and the utilization of -6.2 million euros of provisions to cover the future charge of the remittance of performance shares.

12. Short-term financial investments

The item breaks down as follows:

<i>(in millions of euros)</i>	Gross value as of December 31, 2021	Gross value as of December 31, 2022
Company treasury shares	115.5	115.2
Other short-term financial investments	—	—
SHORT-TERM FINANCIAL INVESTMENTS	115.5	115.2

At the end of 2022, "Company treasury shares" consisted in 951,833 shares (984,570 shares in 2021) allocated to the implementation of performance shares plans to employees.

During the year 2022, the Company bought 201,000 shares (for an amount of 32.0 million euros) allocated to the implementation of performance shares plans to employees and gave 357,059 performance shares, allocated to this objective, for - 32.3 million euros.

13. Shareholders' equity

As of December 31, 2022, the share capital is made of 523,450,271 shares with a par value of 5.50 euros.

The portion of share capital arising from the special revaluation reserve amounts to 71.4 million euros.

(in millions of euros)	As of December 31, 2021 (before appropriation of earnings)	Appropriation of 2021 net profit	Capital increases	Capital decrease	Other changes	As of December 31, 2022 (before appropriation of earnings)
Share capital ^(b)	2,614.1	—	270.9	(6.0)	—	2,879.0
Additional paid-in capital ^(b)	2,749.2	—	(247.4)	(152.8)	—	2,349.0
Revaluation reserve	23.9	—	—	—	—	23.9
Reserves:						
■ Legal reserve	260.4	0.9	—	—	—	261.3
■ Tax-driven reserves	307.8	—	—	—	—	307.8
■ Translation reserve	7.7	—	—	—	—	7.7
■ Other reserves	73.0	—	—	—	—	73.0
Retained earnings ^(c)	4,819.0	(467.5)	5.8	—	(0.5)	4,356.8
Net profit for the year	950.9	(950.9)	—	—	924.7	924.7
Investment grants	0.3	—	—	—	—	0.2
Accelerated depreciation ^(d)	2.5	—	—	—	0.3	2.8
SHAREHOLDERS' EQUITY	11,808.8	(1,417.5) ^(a)	29.3	(158.8)	924.5	11,186.2

(a) Following the decision of the Combined Annual Shareholders' Meeting of May 4, 2022.

(b) The change in Share capital and Additional paid-in capital results from the following transactions:

- capital decrease in the amount of -6.0 million euros by cancelling 1,098,900 treasury shares, as decided by the Board of Directors on July 27, 2022. The Additional paid-in capital was reduced by the amount of premiums related to these shares, i.e. -152.8 million euros;
- capital increase of 269.0 million euros, noted by the Chairman and Chief Executive Officer, as delegated by the Board of Directors on May 4, 2022, resulting from the granting of one free share for 10 existing shares (creation of 47,547,083 new shares) and one free share for 100 existing shares as part of a 10% bonus allotment (creation of 1,358,416 new shares) by deducting -269.0 million euros from "Additional paid-in-capital"; The Additional paid-in capital was reduced by the capital increase costs, i.e. -1.6 million euros;
- capital increases of 1.9 million euros resulting from the exercise of 179,795 subscription options before the free share attribution and 172,840 subscription options after the free share attribution. The Additional paid-in capital was increased by the premiums related to these share capital increases, i.e. 23.2 million euros.

(c) The change in Retained earnings also includes the difference between the estimated loyalty dividend and the loyalty dividend actually paid and the cancellation of the dividend pertaining to treasury shares.

(d) The change in the Accelerated depreciation results from the new accelerated depreciation in accordance with asset depreciation and amortization policies.

14. Debt maturity analysis

(in millions of euros)	December 31, 2022		
	Gross	<= 1 year	> 1 year
Long-term loans	629.5	0.6	628.9
Other long-term investments	17.2	—	17.2
Operating receivables	727.2	645.4	81.8
Current account loans with subsidiaries ^(a)	268.2	268.2	—
ASSETS	1,642.1	914.2	727.9

(a) Current amount loans agreements are concluded for an indefinite period.

(in millions of euros)	December 31, 2022			
	Gross	<= 1 year	> 1 to <= 5 years	> 5 years
Other bonds ^(a)	302.3	302.3	—	—
Bank borrowings	2.0	2.0	—	—
Other borrowings	251.9	1.9	250.0	—
Operating payables	630.8	549.0	81.8	—
Current account borrowings with subsidiaries ^(b)	1,865.2	1,865.2	—	—
DEBTS	3,052.2	2,720.4	331.8	—

(a) All new bond issues carried out by L'Air Liquide S.A., and constituting the outstanding bonds as of December 31, 2022, include a change of control clause.

(b) Current amount borrowings agreements are concluded for an indefinite period.

15. Financial instruments

Unsettled derivatives as of December 31, 2022 break down as follows:

(in millions of euros)	December 31, 2022	
	Carrying value	Fair value
Currency forwards		
■ Buy	86.9	(1.0)
■ Sell	250.2	4.5
TOTAL		3.5

The fair value of derivative instruments is based on the value of the contract on the market at the closing date.

All of these instruments are allocated to hedging. There is therefore no isolated open position whose change in fair value would have a direct impact on the income statement.

16. Retirement and similar plans

A. Group retirement benefit guarantee agreement

In France, Air Liquide grants additional benefits to retirees (3,206 retirees as of December 31, 2022). These benefits provide a supplemental retirement income based on final pay, which is paid in addition to other normal retirement benefits. This plan is closed to employees under the age 45, or with less than 20 years of service as of January 1, 1996. These plans are unfunded. The annual amount paid with regards to additional benefits cannot exceed originally 12% of total payroll or, in some case, 12% of pre-tax profits of companies involved. This 12% threshold will be proportionately reduced by comparing the number of plan beneficiaries for the year to the number of plan beneficiaries for the previous year. The additional benefit granted by Air Liquide is indexed to the pension revaluation rates of normal and supplemental retirement benefits up to a certain annuity threshold without any indexation beyond. This additional benefit was funded subsequently to the article 50 of the law of January 20, 2014 securing the future and fairness of pensions plans.

The contributions amounted to 19.2 million euros after re-invoicing subsidiaries (21.8 million euros in 2021). Excluding the impact of timelines, and until the plan ends, the actuarial value of obligations vis-à-vis retirees and those eligible as of December 31, 2022 amounts to 393.8 million euros.

Based on the assumptions used for the valuation of the retirement obligations, an estimated 199.9 million euros will be recharged to the subsidiaries of L'Air Liquide S.A. as and when benefits are paid to the retirees.

B. Externally funded plan

L'Air Liquide S.A. grants to employees not covered by the preceding plan (1,074 employees as of December 31, 2022) and with at least one half-year of service benefit from an externally funded defined contribution plan. Contributions to this plan are jointly paid by the employer and employee. For 2022, employer contributions amounted to 8.4 million euros (8.1 million euros in 2021).

C. Retirement termination payments and jubilees

The corresponding obligations are provided for in the amount of 29.0 million euros (net of tax) and 1.0 million euros, respectively.

D. Calculation of actuarial assumptions and methods

The calculations with respect to the Group's retirement benefit guarantee agreement, retirement termination payments and jubilees are performed by independent actuaries using the projected unit credit method.

Actuarial gains and losses exceeding the greater of 10% of the obligations related to retirement termination payments and unrecognized past service costs are amortized over the expected average working lives of the plan participants. As of December 31, 2022, the amounts stand at -5.7 million euros (15.8 million euros in 2021).

The actuarial assumptions (turnover, mortality, retirement age, salary increase) vary according to demographic and economic conditions.

The discount rates used to determine the present value of obligations are based on Government bonds or High-quality Corporate bonds, with the same duration as the obligations at the valuation date (3.75 % as of December 31, 2022).

E. Change in retirement obligations and similar benefits

Company obligations with respect to pension plans and similar benefits break down as follows:

<i>(in millions of euros)</i>	Defined benefit plan	Retirement indemnities	Jubilees	Total
OBLIGATIONS AS OF JANUARY 1, 2022	549.4	59.2	1.0	609.6
Service cost	0.8	3.0		3.8
Interest cost	3.5	0.3		3.8
Plan amendments				—
Benefit payments	(55.3)	(1.3)		(56.6)
Actuarial (gains) / losses	(104.6)	(20.8)		(125.4)
OBLIGATIONS AS OF DECEMBER 31, 2022	393.8	40.4	1.0	435.2

17. Accrued income and accrued expenses

<i>(in millions of euros)</i>	December 31, 2022
Accrued income	
Other long-term financial assets	16.7
Operating receivables	193.4
ACCRUED INCOME	210.1
Accrued expenses	
Other bonds	2.3
Other borrowings	1.9
Operating payables	343.2
ACCRUED EXPENSES	347.4

18. Deferred taxes

Deferred taxes arise from timing differences between the tax regime and the accounting treatment of income and expenses. Depending on the nature of the timing differences, these deferred taxes will increase or decrease the future tax expense and are not recorded as per the French Chart of Accounts.

Deferred taxes are estimated as follows:

<i>(in millions of euros)</i>	December 31, 2021	December 31, 2022
Deferred tax assets (decrease in future tax expense)	21.2	5.3
Deferred tax liabilities (increase in future tax expense)	—	—

The deferred taxes were calculated taking into account the 3.3% social security contribution on earnings i.e. a general rate of 25.83% in 2022 and 28.41% in 2021.

OTHER INFORMATIONS

19. Items concerning related undertakings

The Company conducted related party transactions with its wholly owned subsidiaries or subsidiaries that were directly or indirectly controlled.

(in millions of euros)	December 31, 2022	
	Gross	Including related undertakings
Balance sheet		
Long-term loans	629.5	625.6
Other long-term financial assets	17.2	—
Operating receivables	727.2	655.5
Current account loans with subsidiaries	268.2	268.2
Other borrowings	251.9	251.9
Operating payables	630.8	204.2
Current account borrowings with subsidiaries	1,865.2	1,865.2
Income statement		
Financial income from equity affiliates	414.1	414.1
Interests, similar income and expenses	47.2	55.4
Other financial income and expenses	24.6	—

20. Off-balance sheet commitments

Off-balance sheet commitments break down as follows:

(in millions of euros)	December 31, 2021	December 31, 2022
Commitments given		
Endorsements, securities and guarantees given ^(a)	863.4	1,109.1
To Air Liquide Finance and Air Liquide US LLC on transactions performed ^(b)	11,293.3	10,635.6
Firm purchase orders for fixed assets	4.5	5.1
COMMITMENTS GIVEN	12,161.2	11,749.8

(a) Endorsements, securities and guarantees given mainly consist of the joint and several liability guarantee linked to the European program of non-recourse assignments of trade receivable in an amount of 608 million euros (638 million euros as of December 31, 2021) and the joint and several liability guarantee of the subsidiaries Société Européenne de Gestion de l'Énergie and Air Liquide France Industrie in connection with the energy purchases.

(b) L'Air Liquide S.A. holds 100% of the French subsidiary Air Liquide Finance, which manages the Group's cash position and interest rate risk, as well as financing. In addition, Air Liquide Finance holds 100% of Air Liquide US LLC, in order to borrow on the US market. Insofar as the sole activity of Air Liquide Finance and Air Liquide US LLC is the Group's financing, L'Air Liquide S.A. is required to guarantee any issuances performed by these companies.

21. Remuneration paid to members of Executive Management and the Board of Directors

The remuneration (short-term benefits: fixed and variable portions, benefits in kind, retirement termination payments, Directors' fees) paid by the Company to members of Executive Management and the Board of Directors respectively, amounts to:

(in millions of euros)	2022
Remuneration of the Board of Directors	0.8
Remuneration of the Chairman of the Board from June, 1 st 2022	0.5
Remuneration of Executive Management	3.5
TOTAL	4.8

During the 2022 fiscal year, the Company also paid contributions to external organizations for the benefit of Mr Benoît Potier :

- for the year 2021 under the collective life insurance policy (222,134 euros) and the collective pension insurance contract (340,000 euros, divided between a payment to the insurer and a payment to Mr Benoît Potier to cover social security contributions and taxes due on payments made to the insurer), as well as
- relating to the period from January 1 to May 31, 2022 under the defined contribution pension plan (4,066 euros) and the collective death and disability benefits plan (4,237 euros), i.e. a total amount of 570,437 euros.

In 2023, the Company will also pay contributions for the period from January 1 to May 31, 2022 under the collective life insurance policy (91,897 euros) and, under the collective pension insurance contract, for an amount of 141,667 euros (split between a payment to the insurer and a payment to Mr Benoît Potier to cover social security contributions and taxes due on payments made to the insurer).

Statutory accounts on the parent company

During the 2022 fiscal year, the Company also paid contributions to external organizations for the benefit of Mr François Jackow for the period from June 1 to December 31, 2022 in respect of defined contribution pension plans (10,876 euros), the collective death and disability benefits plan (5,932 euros) and the collective healthcare plan (231 euros), i.e. a total of 17,039 euros.

In 2023, the Company will also pay contributions for the period from June 1 to December 31, 2022, under the collective pension insurance contract, for an amount of 202,274 euros (split between a payment to the insurer and a payment to Mr François Jackow to cover social security contributions and taxes due on payments made to the insurer).

22. Average number of employees

The average number of employees is:

	2021	2022
Engineers and executives	911	916
Supervisory staff	193	191
Employees	15	26
Laborers	2	1
TOTAL	1,121	1,134

23. Subsidiaries and affiliates information

(in thousands of euros)	Share capital as of December 31, 2022	Other equity as of December 31, 2022	% share holding	Carrying amount of shares held after the revaluations of 1976, 1978 and 1979			Loans and advances granted by the Company and not repaid	Guarantees and endorsements given by the Company	2021 net revenue ^(a)	Net profit (or loss) for 2021 ^(a)	Dividends collected by the Company during 2022
				Gross	Net	Net					
A. Detailed information on affiliates whose carrying amounts exceed 1% of the capital of the Company required to publish its financial statements											
a) Companies operating in France											
Air Liquide International ^(b) - 75, quai d'Orsay - 75007 Paris	3,151,080	5,522,305	100.00%	9,122,262	9,122,262	20,706	30,172	387	749,834	—	
Air Liquide France Industrie - 6, rue Cognacq-Jay - 75007 Paris	72,453	410,353	100.00%	292,872	292,872	—	—	1,223,050	123,426	110,129	
Air Liquide Finance - 6, rue Cognacq-Jay - 75007 Paris	359,722	96,900	100.00%	284,562	284,562	480	684,192	10,588,697	46,141	43,801	
Air Liquide Santé (International) - 75, quai d'Orsay - 75007 Paris	38,477	362,641	100.00%	331,728	331,728	6,301	—	—	103,264	105,000	
Air Liquide Investissements d'Avenir et de Démonstration - 6, rue Cognacq-Jay - 75007 Paris	85,050	4,266	100.00%	85,050	85,050	—	—	—	18,778	—	
Air Liquide Biogas International (ex Air Liquide International Participations) - 6, rue Cognacq-Jay - 75007 Paris	59,390	31,182	100.00%	116,011	116,011	—	—	—	(12)	—	
b) Companies operating outside of France											
Air Liquide Industriegase GmbH & Co. KG - Hans-Günther-Sohl-Strasse 5 - 40235 Düsseldorf - Allemagne	10	2,779,395	100.00%	2,106,474	2,106,474	—	—	90,186	—	80,491	
B. General information on other subsidiaries and affiliates											
a) French companies (together)				75,910	75,909	16,068	6,979	—	—	67,647	
b) Foreign companies (together)				3,211	3,212	—	—	—	—	7,002	

(a) Most recent year-end accounts approved by the competent decision-making bodies.

(b) Holding company.

Statutory auditors' report on the annual Financial Statements

This is a translation into English of the Statutory Auditors' report on the Financial Statements of the Company issued in French and it is provided solely for the convenience of English speaking users. This Statutory Auditors' report includes information required by European regulations and French law, such as information about the appointment of the Statutory Auditors or verification of the Management Report and other documents provided to the shareholders. This report should be read in conjunction with, and construed in accordance with, French law and professional auditing standards applicable in France.

To the Annual General Meeting of L' Air Liquide,

OPINION

In compliance with the engagement entrusted to us by your Annual General Meeting, we have audited the accompanying Financial Statements of L'Air Liquide for the year ended December 31, 2022.

In our opinion, the Financial Statements give a true and fair view of the assets and liabilities and of the financial position of the Company as at December 31, 2022 and of the results of its operations for the year then ended in accordance with French accounting principles.

The audit opinion expressed above is consistent with our report to the Audit and Accounts Committee.

BASIS FOR OPINION

Audit Framework

We conducted our audit in accordance with professional standards applicable in France. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Our responsibilities under those standards are further described in the Statutory Auditors' Responsibilities for the Audit of the Financial Statements section of our report.

Independence

We conducted our audit engagement in compliance with the independence requirements of the French Commercial Code (Code de commerce) and the French Code of Ethics for Statutory Auditors (Code de déontologie de la profession de Commissaire aux comptes) for the period from January 1st, 2022 to the date of our report, and specifically we did not provide any prohibited non-audit services referred to in Article 5(1) of Regulation (EU) No. 537/2014.

JUSTIFICATION OF ASSESSMENTS – KEY AUDIT MATTERS

In accordance with the requirements of Articles L. 823-9 and R. 823-7 of the French Commercial Code (Code de commerce) relating to the justification of our assessments, we inform you of the key audit matters relating to risks of material misstatement that, in our professional judgment, were of most significance in our audit of the financial statements of the current period, as well as how we addressed those risks.

These matters were addressed in the context of our audit of the Financial Statements as a whole and in forming our opinion thereon, and we do not provide a separate opinion on specific items of the Financial Statements.

Equity investments measurement

Risk identified

As at December 31, 2022, the net book value of the equity investments amounts to 12,419.3 million euros and represents 86,9% of the total balance sheet. Equity investments are recognized at their initial consideration, excluding acquisition costs and after considering legal reevaluation if any (as provided by Law 76-1232 of December 29, 1976).

As disclosed in note "2.D. Accounting policies – Equity investments" to the statutory Financial Statements, when the carrying amount (determined applying the market multiples method based on the Group market capitalization or the estimated cash flows method or the method of net asset value re-measured at fair value) is lower than the net book value of the equity investment, an impairment loss is recognized for the difference

The selection of the method used to determine the carrying amount requires significant judgement of the Company.

Due to the significant equity investments balance and the impact of the method retained to determine the carrying amount, we have considered that the measurement of the equity investments as a key audit matter.

Our response

Our procedures mainly consisted in considering, based on information provided by the Company, the valuation methods applied by the Company, and assessing;

- the assumptions used to determine the re-measured net asset;
- the methodology and the results of the tests performed based on the Group market capitalization;
- the appropriateness of information included in notes "2.D. Accounting policies – Equity investments", "10. Financial assets" and "11. Impairment, allowances and provisions" to the Statutory Financial Statements.

SPECIFIC VERIFICATIONS

We have also performed, in accordance with professional standards applicable in France, the specific verifications required by laws and regulations.

Information given in the Management Report and in the other documents with respect to the financial position and the Financial Statements provided to the Shareholders

We have no matters to report as to the fair presentation and the consistency with the Financial Statements of the information given in the Board of Directors Management Report and in the other documents with respect to the financial position and the Financial Statements provided to the shareholders.

We attest the fair presentation and the consistency with the Financial Statements of the information relating to payment deadlines mentioned in Article D. 441-6 of the French Commercial Code (Code de commerce).

Report on corporate governance

We attest that the Board of Directors' Report on Corporate Governance sets out the information required by Articles L. 225-37-4, L. 22-10-10 and L. 22-10-9 of the French Commercial Code (Code de commerce).

Concerning the information given in accordance with the requirements of Article L. 22-10-9 of the French Commercial Code (Code de commerce) relating to the remuneration and benefits received by the directors and any other commitments made in their favor, we have verified its consistency with the Financial Statements, or with the underlying information used to prepare these Financial Statements and, where applicable, with the information obtained by your Company from companies controlled thereby, included in the consolidation scope. Based on these procedures, we attest the accuracy and fair presentation of this information.

With respect to the information relating to items that your Company considered likely to have an impact in the event of a takeover bid or exchange offer, provided pursuant to Article L. 22-10-11 of the French Commercial Code (Code de commerce), we have agreed this information to the source documents communicated to us. Based on these procedures, we have no observations to make on this information.

Other information

In accordance with French law, we have verified that the required information concerning the purchase of investments and controlling interests and the identity of the shareholders and holders of voting rights has been properly disclosed in the management report.

REPORT ON OTHER LEGAL AND REGULATORY REQUIREMENTS

Format of the presentation of the Financial Statements included in the Annual Financial Report

We have also verified, in accordance with the professional standard applicable in France relating to the procedures performed by Statutory Auditors regarding the annual and Consolidated Financial Statements prepared in the European single electronic format, that the preparation of the Financial Statements included in the Annual Financial Report mentioned in Article L. 451-1-2, I of the French Monetary and Financial Code (Code monétaire et financier), prepared under the Chief Executive Officer's responsibility, complies with the single electronic format defined in Commission Delegated Regulation (EU) No. 2019/815 of 17 December 2018.

On the basis of our work, we conclude that the preparation of the Financial Statements included in the annual financial report complies, in all material respects, with the European single electronic format.

Appointment of the Statutory Auditors

We were appointed as statutory auditors of the Annual General Meeting held on May 12, 2016 for PricewaterhouseCoopers Audit and on May 4, 2022 for KPMG S.A..

As at December 31, 2022, PricewaterhouseCoopers Audit was in its seventh year of uninterrupted engagement and KPMG S.A. in its first year.

RESPONSIBILITIES OF MANAGEMENT AND THOSE CHARGED WITH GOVERNANCE FOR THE FINANCIAL STATEMENTS

Management is responsible for the preparation and fair presentation of the Financial Statements in accordance with French accounting principles and for such internal control as Management determines is necessary to enable the preparation of Financial Statements that are free from material misstatement, whether due to fraud or error.

In preparing the Financial Statements, Management is responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless it is expected to liquidate the Company or to cease operations.

The Audit and Accounts Committee is responsible for monitoring the financial reporting process and the effectiveness of internal control and risk management systems and where applicable, its internal audit, regarding the accounting and financial reporting procedures.

The Financial Statements were approved by the Board of Directors.

STATUTORY AUDITORS' RESPONSIBILITIES FOR THE AUDIT OF THE FINANCIAL STATEMENTS

Objectives and audit approach

Our role is to issue a report on the Financial Statements. Our objective is to obtain reasonable assurance about whether the Financial Statements as a whole are free from material misstatement. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with professional standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users made on the basis of these Financial Statements.

As specified in Article L. 823-10-1 of the French Commercial Code (Code de commerce), our statutory audit does not include assurance on the viability of the Company or the quality of management of the affairs of the Company.

As part of an audit conducted in accordance with professional standards applicable in France, the Statutory Auditor exercises professional judgment throughout the audit and furthermore:

- identifies and assesses the risks of material misstatement of the Financial Statements, whether due to fraud or error, designs and performs audit procedures responsive to those risks, and obtains audit evidence considered to be sufficient and appropriate to provide a basis for his opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control;
- obtains an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the internal control;
- evaluates the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by Management in the Financial Statements;
- assesses the appropriateness of Management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. This assessment is based on the audit evidence obtained up to the date of his audit report. However, future events or conditions may cause the Company to cease to continue as a going concern. If the statutory auditor concludes that a material uncertainty exists, there is a requirement to draw attention in the audit report to the related disclosures in the Financial Statements or, if such disclosures are not provided or inadequate, to modify the opinion expressed therein;
- evaluates the overall presentation of the Financial Statements and assesses whether these statements represent the underlying transactions and events in a manner that achieves fair presentation.

REPORT TO THE AUDIT AND ACCOUNTS COMMITTEE

We submit to the Audit and Accounts Committee a report which includes in particular a description of the scope of the audit and the audit program implemented, as well as the results of our audit. We also report significant deficiencies, if any, in internal control regarding the accounting and financial reporting procedures that we have identified.

Our report to the Audit and Accounts Committee includes the risks of material misstatement that, in our professional judgment, were of most significance in the audit of the Financial Statements of the current period and which are therefore the key audit matters that we are required to describe in this report.

We also provide the Audit and Accounts Committee with the declaration provided for in Article 6 of Regulation (EU) No. 537/2014, confirming our independence within the meaning of the rules applicable in France as set out in particular in Articles L. 822-10 to L. 822-14 of the French Commercial Code (Code de commerce) and in the French Code of Ethics for Statutory Auditors (Code de déontologie de la profession de Commissaire aux comptes). Where appropriate, we discuss with the Audit and Accounts Committee the risks that may reasonably be thought to bear on our independence, and the related safeguards.

Neuilly-sur-Seine et Paris-La Défense, March 1st, 2023

The Statutory Auditors
French original signed by

PricewaterhouseCoopers Audit		KPMG S.A.	
Olivier Lotz	Cédric Le Gal	Valérie Besson	Laurent Genin

Five-year summary of Company results

(Articles R. 225-83 and R. 225-102 of the French Commercial Code)

	2018	2019	2020	2021	2022
I - Share capital at the end of the year					
a) Share capital (in euros) ^{(a) (b) (c)}	2,361,828,887	2,602,080,327	2,605,133,982	2,614,100,704	2,878,976,491
b) Number of outstanding ordinary shares	429,423,434	473,105,514	473,660,724	475,291,037	523,450,271
c) Number of shares with loyalty dividend entitlement ^(d)	128,524,663	134,154,877	131,753,261	134,993,503	149,161,232
d) Convertible bonds					
II - Operations and results of the year <i>(in millions of euros)</i>					
a) Revenue	110.3	117.4	86.8	96.7	97.5
b) Net profit before tax, employee profit-sharing, depreciation, amortization and provisions	624.0	622.4	1,378.9	1,072.1	998.9
c) Corporate income tax	27.5	12.5	8.8	16.0	29.9
d) Employee profit-sharing for the year	2.6	2.7	2.8	3.2	3.9
e) Net profit after tax, employee profit-sharing, depreciation, amortization and provisions	544.8	567.7	1,333.8	950.9	924.7
f) Distributed profit	1,171.4	1,316.6	1,338.1	1,417.5	1,587.4
III - Per share data (in euros)					
a) Net profit after tax, employee profit-sharing, but before depreciation, amortization and provisions					
■ over the number of ordinary shares outstanding	1.38	1.28	2.89	2.22	1.84
■ over the adjusted number of shares ^(e)	1.14	1.17	2.63	2.02	1.85
b) Net profit after tax, employee profit-sharing, depreciation, amortization and provisions					
■ over the number of ordinary shares outstanding	1.27	1.20	2.82	2.00	1.77
■ over the adjusted number of shares ^(e)	1.05	1.09	2.56	1.82	1.77
c) Dividend allocated to each share					
■ over the number of ordinary shares outstanding	2.65	2.70	2.75	2.90	2.95
■ over the adjusted number of shares ^(f)	2.18	2.45	2.49	2.63	2.95
d) Loyalty dividend					
■ over the number of ordinary shares outstanding	0.26	0.27	0.27	0.29	0.29
■ over the adjusted number of shares ^(f)	0.21	0.24	0.24	0.26	0.29
IV - Employees working in France					
a) Average number of employees during the year	1,046	1,032	1,066	1,121	1,134
b) Total payroll for the year <i>(in millions of euros)</i>	160.4	156.6	155.3	162.9	171.0
c) Amounts paid with respect to employee benefits during the year (social security, staff benefits, etc.) <i>(in millions of euros)</i>	75.2	82.5	80.1	83.4	76.9

- (a) Using the authorization granted by the 15th resolution of the Combined Annual Shareholders' Meeting of May 16, 2018, the 14th resolution of the Combined Annual Shareholders' Meeting of May 4, 2021 and the 18th resolution of the Combined Annual Shareholders' Meeting of May 4, 2022, the Board of Directors made the following decisions:
- in its meeting of May 16, 2018, capital decrease by cancellation of 654,000 treasury shares;
 - in its meeting of May 7, 2019, capital decrease by cancellation of 953,000 treasury shares;
 - in its meeting of July 28, 2021, capital decrease by cancellation of 165,000 treasury shares;
 - in its meeting of July 27, 2022, capital decrease by cancellation of 1,098,900 treasury shares.
- (b) Using the authorization granted by the 16th resolution of the Combined Annual Shareholders' Meeting of May 16, 2018, the Board of Directors decided in its meeting of July 29, 2019, the granting of one free share for ten existing shares, and the granting of a 10% bonus for shares held in registered form from December 31, 2016 to October 8, 2019.
- Using the authorization granted by the 19th resolution of the Combined Annual Shareholders' Meeting of May 4, 2022, the Board of Directors decided in its meeting of May, 4th 2022, the granting of one free share for ten existing shares, and the granting of a 10% bonus for shares held in registered form from December 31, 2019 to June 7, 2022.
- (c) Using the authorizations granted by the resolutions of Combined Annual Shareholders' Meetings of May 5, 2010, May 7, 2013, and May 12, 2016,
- the Board of Directors noted in its meeting of May 4, 2022 the issuance of 179,795 shares arising from:
 - the exercise of 77,102 options subscribed at the price of 70.14 euros;
 - the exercise of 35,709 options subscribed at the price of 74.06 euros;
 - the exercise of 9,375 options subscribed at the price of 76.47 euros;
 - the exercise of 38,699 options subscribed at the price of 77.67 euros;
 - the exercise of 13,889 options subscribed at the price of 84.08 euros;
 - the exercise of 5,021 options subscribed at the price of 85.52 euros.
 - the Board of Directors noted in its meeting of February 15, 2023 the issuance of 172,840 shares arising from:
 - the exercise of 70,127 options subscribed at the price of 63.59 euros;
 - the exercise of 53,194 options subscribed at the price of 67.15 euros;
 - the exercise of 2,654 options subscribed at the price of 69.33 euros;
 - the exercise of 24,920 options subscribed at the price of 70.42 euros;
 - the exercise of 12,876 options subscribed at the price of 76.23 euros;
 - the exercise of 3,235 options subscribed at the price of 77.54 euros;
 - the exercise of 5,834 options subscribed at the price of 87.97 euros.
- Using the authorization granted by the 15th resolution of the Combined Annual Shareholders' Meeting of May 3, 2017, pursuant to the delegation granted by the Board of Directors in its meeting of May 16, 2018 and confirmed on July 27, 2018, the Chairman and C.E.O. noted on December 7, 2018 the employee-reserved issuance of 1,049,529 new shares:
- 934,697 new shares subscribed in cash at a price of 87.09 euros per share, of which 2,413 shares were subscribed as part of the contribution paid by the Company (1 bonus share for 4 shares subscribed with a maximum of 3 bonus shares per employee);
 - 114,832 new shares subscribed in cash at a price of 92.53 euros per share.
- Using the authorization granted by the 17th resolution of the Combined Annual Shareholders' Meeting of May 4, 2021, the Chairman and Chief Executive Officer, pursuant to the delegation granted by the Board of Directors in its meeting of February 9, 2021 with the right to sub-delegate and confirmed on July 28, 2021, has delegated his authority during the Board of Directors meeting held in July, 28 2021 to the Executive Vice President who noted on December 9, 2021 the employee-reserved issuance of 1 098 738 new shares:
- 984,988 new shares subscribed in cash at a price of 113.23 euros per share, of which 2,760 shares were subscribed as part of the contribution paid by the Company (1 bonus share for 4 shares subscribed with a maximum of 3 bonus shares per employee);
 - 113,750 new shares subscribed in cash at a price of 120.31 euros per share.
- (d) Beginning December 31, 1995, shareholders holding their shares in registered form for at least two years at the period-end, and who will retain these shares in this form until the dividend payment date, will receive a dividend with a 10% bonus compared to the dividend paid to other shares. The difference between the loyalty dividend calculated on the number of shares outstanding as of the period-end and the loyalty dividend actually paid shall be allocated to retaining earnings.
- (e) Adjusted to take into account, in the weighted average, the capital increases performed via cash subscriptions and treasury shares.
- (f) Adjusted to account for share capital movements.



5

Extra-financial Performance Declaration and Environmental and Societal Reporting

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INTRODUCTION

Air Liquide revealed in March 2021 its Sustainable Development strategy, structured on three pillars:

- **Acting for a low-carbon society;**
- **Acting for health;**
- **Acting as a trusted partner.**

Beyond this commitment, Air Liquide's ambition is to contribute to a more sustainable world. The Group's growth model is now based on the principle of a global performance that combines economic performance and sustainable development.



Having published its new medium term strategic plan ADVANCE in March 2022, Air Liquide recognizes that achievement of its environmental, societal and governance (ESG) commitments is now its license to operate.

Decarbonization being one of the four key priorities of ADVANCE, Air Liquide performance analysis is now based on two pillars, financial and extra-financial performance. The Group teams worldwide are now federated around these objectives.

In 2022, supported by the announcement of ADVANCE, Air Liquide has accomplished significant progress and confirmed the Group's alignment with its short term and medium term ESG objectives.

ACT FOR A SUSTAINABLE FUTURE / GROUP'S COMMITMENT		2022
ACT FOR a low-carbon society	→ around 2025, reduction of absolute CO ₂ emissions in its Scopes 1 and 2	-0.3% vs. 2020
	→ by 2035, a -33% reduction vs. 2020	
ACT FOR health	→ by 2025, a -30% reduction in carbon intensity compared to 2015	-25% vs. 2015
	→ improve the quality of life of patients with chronic diseases living at home in mature economies	49% ^(a)
ACT AS A TRUSTED PARTNER, with and on behalf of our stakeholders	→ facilitate access to medical oxygen in low- and middle-income countries	1,778,000 persons
	→ 35% women managers and professionals by 2025	31.5% ^(b)
	→ 100% of employees to have common basis of care coverage, including death and disability insurance, healthcare and a minimum of 14 weeks of paid maternity leave, by 2025	42%

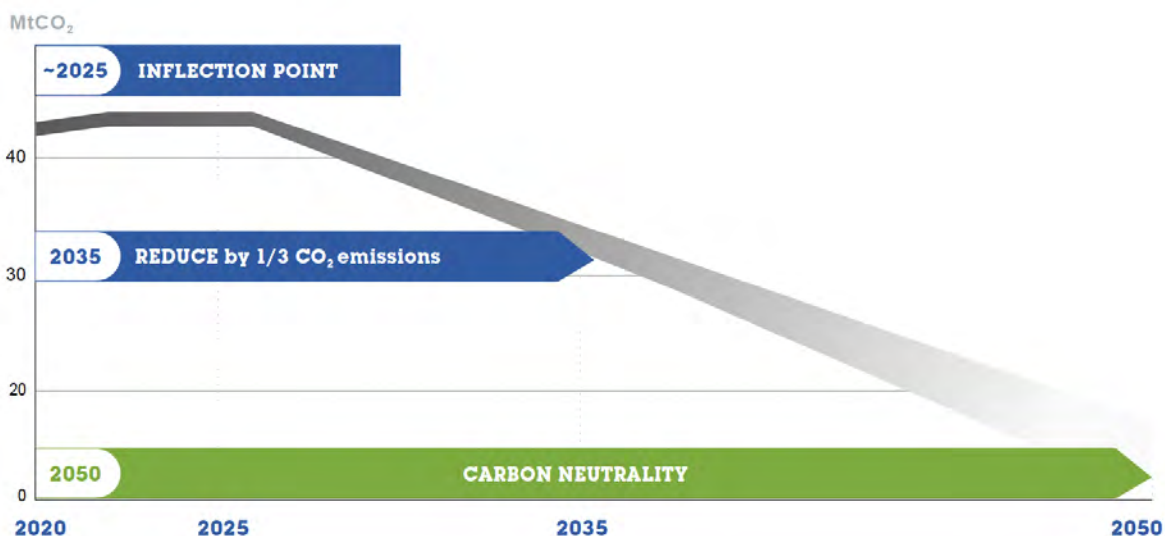
(a) Share of patients with personalized support plans.

(b) The share of women among "Managers and Professionals" is rounded off in increments of 0.5%.

■ Acting for a low-carbon society.

The Group was the first among its peers to set in 2018 an objective of -30% ⁽¹⁾ reduction in carbon intensity by 2025 versus 2015.

Following this, in March 2021, Air Liquide set itself the ambition to achieve carbon neutrality by 2050 and two major milestones: a -33% reduction of its CO₂ ⁽²⁾ emissions in absolute value by 2035 versus 2020 ⁽³⁾ and an inflection point in emissions around 2025.



Air Liquide's objective to reduce its Scopes 1 and 2 greenhouse gas emissions by 2035 has been validated by the Science Based Targets initiative (SBTi) in May 2022 as qualified and aligned with climate science ⁽⁴⁾. The Group was the first in its industry to obtain validation from the SBTi.

Air Liquide intends to contribute to carbon neutrality by addressing its entire value chain, covering direct emissions (Scope 1), indirect emissions related to energy procurement (Scope 2), as well as the main indirect emissions of Scope 3.

To achieve the decarbonization of its assets, the Group has now set up processes to measure and control its CO₂ emissions on a quarterly basis. Each geography of the Group has been allocated a yearly carbon budget and each new project is evaluated against the global trajectory of decarbonization.

Air Liquide's strategy is based on the decarbonization of its own assets, as well as on a commitment throughout its value chain:

- upstream, by integrating the reduction of emissions into the purchasing process and supporting its suppliers,
- downstream, by developing innovative low-carbon solutions with its customers to offer low-carbon solutions and co-developing processes like oxy-combustion and CO₂ capture.

Overall, the Group contributes to the emergence of a low-carbon society by promoting hydrogen, by developing clean mobility, and by enabling the circular economy with use of biomethane.

SCOPE 3 COMMITMENT

Aware of the importance of contributing to the achievement of carbon neutrality throughout its value chain, in 2022, Air Liquide worked on developing its "Scope 3" emissions reduction strategy. The value of its customer relationships has led the Group to make a pledge that 75% of its 50 largest customers will have a stated carbon neutrality commitment by 2025 and 100% by 2035.

In 2022, the Group's Scopes 1 and 2 emissions remained stable for the second year in a row, while activity is growing strongly again.

⁽¹⁾ In kg CO₂-equivalent/euro of operating income recurring before depreciation and amortization and excluding IFRS 16 at 2015 exchange rates on Scopes 1 and 2 of greenhouse gas emissions on a "market-based" methodology (see methodology for calculating scopes in paragraph 2.2.4 of the Annual Reporting section of chapter 5, pages 426 and 427, as well as reconciliation in the Performance Indicators paragraph of chapter 1, page 61)

⁽²⁾ CO₂ emissions should be considered as greenhouse gas emissions converted to CO₂-equivalent.

⁽³⁾ In tonnes of CO₂-equivalent of Scopes 1 and 2, on a "market-based" methodology (see methodology for calculating scopes in paragraph 2.2.4 of the Annual reporting section of chapter 5, pages 426 and 427), restated, from 2020 and each subsequent year, to include the emissions of the assets for the full year, taking into account (upwards and downwards) changes in scope having a significant impact on CO₂ emissions.

⁽⁴⁾ Air Liquide announced its greenhouse gas emission reduction targets for Scopes 1 and 2 in March 2021 on a 2020 baseline. Following the acquisition of the Sasol air separation units in South Africa on June 24, 2021, Air Liquide submitted to SBTi a target on a 2021 baseline in order to integrate this significant change in scope (see page 357).

Introduction

- **Acting for health.**

Air Liquide is engaged alongside patients and communities. In mature economies, the Group improves the quality of life of patients with chronic diseases at home, 49% of them having personalized support plans by the end of 2022, a 11% improvement compared to the year before. In low-and-middle-income countries, Air Liquide facilitates access to oxygen to 1,778,000 people.

- **Act as a trusted partner.**

Air Liquide strives to act as a trusted partner with all its stakeholders: employees, customers, suppliers, shareholders and local communities.

Air Liquide is promoting inclusive culture and diversity. In 2022, the Group has reached a share of 31.5% ⁽⁵⁾ of women among Managers and Professionals with an objective of 35% by 2025.

The Group is committed to providing 100% of its employees with a common basis care of coverage, including death and disability insurance, healthcare and paid maternity leave by 2025. In 2022 the population covered is 42% of employees, an improvement of 8% vs. last year.

Air Liquide supports local social initiatives, with **Citizen at Work** program. 43% of employees had access to volunteering opportunities in 2022, with the objective of providing such access to its 100% of employees by 2025.

Other environmental objectives

Decarbonizing the planet is a strategic pillar for the Group. On a broader level, Air Liquide is responsible for preserving the environment, particularly water resources and biodiversity.

In 2022, due to the development of the activity, and in particular the takeover of Sasol's production units, the Group's water consumption increased by 10%.

Air Liquide published its policy and objectives regarding water management in 2021 and began its deployment in 2022 (see paragraph 2.3 Water management in the section 2 Environmental stakes of this chapter, page 368).

COMMITMENTS FOR THE PRESERVATION OF BIODIVERSITY

After an in-depth analysis of the impacts and dependencies of its products and supply chain on biodiversity, Air Liquide has formalized a more detailed framework in 2022, which led it to make its first commitments to preserving biodiversity (see paragraph 2.4 Biodiversity in the section 2 Environmental stakes of this chapter, page 371).

Legal framework

This Universal Registration Document strives to comply with the various principles that respectively govern the (EU) Regulation 2017/1129 of June 14, 2017 ("Prospectus III Regulation"), the Vigilance Plan and the Extra-financial Performance Declaration (EFPD) as follows:

Chapter 1 sets out the Group's integrated strategy, its business model, and its financial, environmental and societal performance.

Chapter 2 includes:

- a description of risk factors that are **material and specific to the issuer** and associated management measures, covered in article 16 of the Prospectus III Regulation;
- the mapping of **risks specific to the duty of vigilance** (as defined by the article L. 225-102-4 of the French commercial code) supplements the Company's own mapping, identifying risks that the Company could pose to individuals (concerning respect for human rights and fundamental freedoms, health and safety) and to the environment. The most serious risks are identified so that they can be addressed as a priority by implementing preventive, mitigating or remedial measures (page 95).

The **Extra-financial Performance Declaration** (EFPD), as defined in article L. 22-10-36 paragraph 1 of the French Commercial Code and published in **Chapter 5**, sets out the main extra-financial risks for the Group and the associated mitigating policies. Some of these risks fall within the requirements of the Prospectus III Regulation and are included in the Risk Factors and Management Measures section of Chapter 2 of this Universal Registration Document.

Just like the Annual Financial Report, the Environmental and Societal reporting is reviewed each year by an independent verifier. Audits by independent verifier conducted in 2022 covered 30% of the workforce and 24% of the Group's environmental footprint ⁽⁶⁾.

For further information, the Group's website has a section dedicated to Sustainable Development.

Visit <https://www.airliquide.com/sustainable-development/act-sustainable-future>.

⁽⁵⁾ The share of women among "Managers and Professionals" is rounded to 0.5% steps.

⁽⁶⁾ Details of the sites audited in 2022 are provided in the Independent Verifier Report on page 436 to 440.

EXTRA-FINANCIAL PERFORMANCE DECLARATION

The Extra-financial Performance Declaration (EFPD), the Vigilance Plan and the communication regarding the Group’s specific risk factors are subject to different regulatory frameworks, as stated in the introduction to Chapter 2 (page 76) of this Universal Registration Document.

The Extra-financial Performance Declaration published by Air Liquide includes:

- an introduction to its business model (Chapter 1 – page 34 and 35);
- an analysis of the main corporate social responsibility (CSR) risks as defined by the Extra-financial Performance Declaration (Chapter 5). Some of these risks also relate to criteria in the Prospectus III regulation, and as such are presented in Chapter 2 of this Universal Registration Document;
- the policies and procedures implemented to prevent and mitigate these risks (Chapter 5);
- the results of these policies and key performance indicators (Chapter 5).

Through its business, commitment and environmental and social actions, Air Liquide contributes to achieving certain Sustainable Development Goals (SDGs) introduced by the UN to eradicate poverty, protect the planet and guarantee prosperity for all by 2030. To illustrate this contribution, initiatives by the Group – described in the EFPD – are associated with the relevant SDGs.

It is structured around corporate, environmental and social stakes.

In the Extra-financial Performance Declaration, the main risks and stakes were identified by the Sustainable Development Department in partnership with the Legal, Financial, Human Resources and Risks departments. Some of them appear in the Group’s overall risks map and have been reviewed by the Board of Directors.

Moreover, in identifying these risks and stakes, Air Liquide also takes into account a dual materiality perspective:

- their internal impact, i.e. on the Group’s performance and development;
- their external impact taking into account the assessment of its stakeholders.

In order to integrate the main risks and opportunities into Group’s strategy, according to the importance given to them by the various stakeholders, Air Liquide updated the materiality matrix of its sustainable development stakes in 2020. The results of this process are presented in this chapter (page 395 and 396).



AIR LIQUIDE PROTECTS LIFE AND ENVIRONMENT

Many industrial and medical gas applications protect the environment on the sites of Group’s customers, and life at the homes of Group’s patients. These applications accounted for over 40% of Group revenue in 2022.

1. Social stakes

1.1. HEALTH AND SAFETY

1.1.1. Health and safety risks

Health and safety risks form part of the Group's industrial risks (described in chapter 2 of this Universal Registration Document, page 78), which are associated with the various products, industrial processes and distribution methods in use. Air Liquide's various business lines involve more specific risks associated with products and processes, and how they are operated.

1.1.2. Policy and procedures

Safety is an integral part of Air Liquide's operational excellence and culture. The Group is committed to reducing the exposure of its employees, customers, subcontractors, suppliers and local communities to occupational and industrial risks effectively and in all circumstances. Commitment to safety is total, visible and accompanied by unshakable vigilance.

Prevention, protection, early detection and rapid reaction to health and safety risks are at the heart of the Group's concerns. This commitment is reiterated in the General Statement of Air Liquide's Principles of Action. These Principles are shared with all entities and are available on the Group's website (<https://www.airliquide.com/sustainable-development/ethics/groups-principles-action>).

Every subsidiary is committed to achieving the "zero accidents" ambition, as well as the objective of continuously improving its safety performance.

The safety of individuals

Safety is a collective commitment and the responsibility of each individual. Being aware of dangers and risks, applying the rules and taking care of others – all this contributes to reducing the risk of accidents and strengthening the Group's safety culture. Safety leadership training and on-the-job training courses are regularly organized. Air Liquide's managers encourage safety efforts, demonstrate this commitment on site and reward best practices.

Each employee and contractor must be aware of safety rules, follow them and intervene each time there is a risk of unsafe behavior or conditions.

The Group has drawn up Life-Saving Rules. Everyone working for Air Liquide, whether an employee or subcontractor, must be aware of these rules, follow them and always intervene if there is a risk of unsafe behavior or conditions. The interpretation and meaning of each rule is widely shared within the Group and with subcontractors. The Safety and Industrial Systems Department provides entities with various communication, awareness-raising and training materials on vital safety rules. Given their importance, non-compliance with any of these rules by anyone working for Air Liquide can lead to a warning, or even penalties up to and including suspension. These vital safety rules are as follows:



1. I do not work under the influence of drugs or alcohol.
2. I do not smoke outside the reserved areas.
3. I wear the personal protective equipment (PPE) required for the task and the work area.
4. I wear a portable detector in the required areas.
5. I never enter a confined space without analyzing and managing the risk.
6. I only intervene when the risks are identified and formalized.
7. I apply lockout procedures before working on any equipment potentially containing energy.
8. I do not deactivate an Important Safety Component (ISC) without applying downgraded mode or compensatory measures.
9. I wear fall-prevention equipment when required.
10. I do not pass under a suspended load.
11. I secure vehicle loading.
12. I always wear my seat belt when I am in a moving vehicle.

Air Liquide uses contractors within the course of its business and pays particular attention to the following:

- assessing the level of maturity and performance of safety measures before any sales commitment is made;
- including safety clauses in the contracts;
- a work structure with shared, comprehensible and detailed safety instructions;
- communicating Air Liquide's safety values and standards, as well as the regulations in force that must be followed;
- being as demanding and stringent with contractors as we are with Group employees;
- supervising contractors' safety in the execution of services;
- safety reviews once the work is complete and sharing feedback.

Process safety

Process safety addresses risks relating to industrial facilities from production to product implementation. It draws on Air Liquide's Industrial Management System (IMS) and requires:

- the identification of specific industrial risks for each business;
- knowledge of scenarios and their potential consequences;
- the implementation of appropriate preventive and protective safety measures for each of these risks;
- the monitoring and analysis of risks relating to new technologies and events arising within the profession;
- feedback to facilitate learning, awareness-raising, the promotion of a safety culture and to improve prevention.

Since its implementation in 2005, the IMS has significantly changed and improved the way in which industrial activities are managed. Thanks to employees' commitment to safety, environmental protection and reliability, this system helps strive towards operational excellence. Its implementation is regularly assessed by specific IMS internal audits.

The safety of industrial processes is a complex issue as, although rare, incidents can lead to very serious consequences with multiple fatalities. In order to ensure that operations efficiently take this risk into account, Air Liquide has introduced specific action plans, the purpose of which is to control the most serious risks relating to industrial processes. They have been assigned the necessary resources (expertise and budgets) and follow a roadmap.

The progress of specific action plans aimed at bringing the most serious risks related to industrial processes under control is regularly monitored by the Group's Executive Management.

Road safety

Each year, delivery vehicles, sales staff and technicians travel hundreds of millions of kilometers. Non-compliance with the traffic regulations or the lack of regular maintenance of vehicles would expose drivers and third parties to increased risks of accidents.

The Group's goal is to permanently reduce the frequency and severity of road accidents, for its employees and subcontractors as well as for third parties.

It uses the following means to achieve these goals:

- ensuring that the Group's safety rules are applied by all subsidiaries and service providers;
- replacing the fleet with safer vehicles;
- improving the safety of drivers and third parties by introducing the necessary behavioral changes through the implementation of digital alert and support technologies;
- systematically incorporating feedback from the most serious events, and sharing best practices with all of Group's subsidiaries and partners;
- monitoring the implementation and effectiveness of measures implemented by subsidiaries through dedicated audits.

According to the geographies, context, current legislation and practices, all or some of the following measures are applied:

- the installation of onboard technologies such as cameras, which can detect driver fatigue and distractions, or reversing cameras to reduce blind spots, in order to help change driver behavior or provide visibility of the vehicle's surroundings;
- increased dialog on road safety both internally as well as with service providers and other organizations specialized in this subject, both locally and on an international scale. Air Liquide regularly holds transport safety discussions and knowledge-building events with its partners;
- initiatives which lead to a change in behavior to implement a dynamic culture of road safety among Air Liquide employees and employees of the Group's contractors.

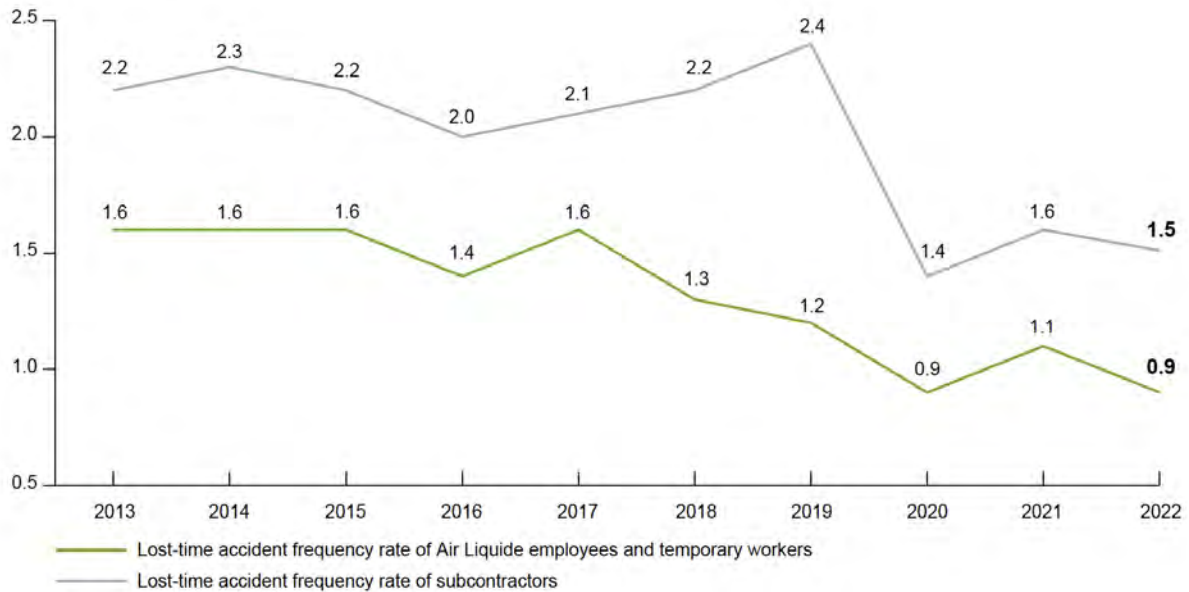
1.1.3. Performance

The actions undertaken by the Group are intended to contribute to the UN Sustainable Development Goals (SDGs) 3 "Good health and well-being" and 8 "Decent work and economic growth".

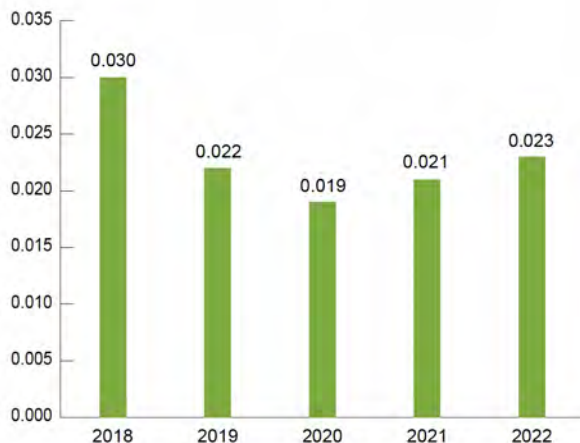
The lost-time accident frequency rate for Air Liquide employees and temporary workers decreased to 0.9 at the end of 2022, compared to 1.1 at the end of 2021. Continued implementation of awareness and prevention actions will further improve safety and significantly and sustainably reduce this lost time accident frequency rate.

In 2022, the Group recorded the death of one subcontractor on road. The Group has made and will continue to make every effort to analyze all accidents that have occurred in order to learn from them and thus prevent them from happening again.

Extra-financial Performance Declaration

LOST-TIME ACCIDENT FREQUENCY RATE AMONG AIR LIQUIDE EMPLOYEES AND SUBCONTRACTORS ^(a) ^(b)

(a) Number of lost-time accidents with at least one lost day per million hours worked by Group employees.
 (b) Including Airgas since 2017.

ROAD SAFETY: FREQUENCY OF PREVENTABLE SERIOUS ACCIDENTS WITH INJURIES ^(a)

(a) Per million km driven by trucks of over 3.5 tonnes.

With regard to road transport safety, the year 2022 shows a decline in performance compared to the previous year.

The year 2022 was affected by the death of a subcontractor driver in a road accident. In addition, several accidents involving an Air Liquide vehicle, some of which could have been avoided, unfortunately resulted in the death of a third party.

An analysis of road accidents in recent years has revealed a number of recurring causes, such as fatigue or distraction while driving. For this reason, Air Liquide has launched some key initiatives to support changes in driver behavior and promote the use of digital driver-assistance technologies, which will gradually lead to improvements in road transport safety.

1.2. HUMAN RESOURCES MANAGEMENT

1.2.1. Human Resources management related risks

Human Resources management related risks are part of the Group's business related risks (described in chapter 2 of this Universal Registration Document, page 81). Working arrangements in an international group like Air Liquide need to be able to adapt to a constantly changing world so that employees can operate in a safe, high-quality working environment and contribute to the Group's sustainable growth.

The long-term performance of Air Liquide is driven, in particular, by the quality of its employees, their skills and their commitment.

In its businesses, the Group is therefore exposed to the risk of not being able to:

- attract and maintain the required skills at the right time and in the right place, in particular in emerging countries where the Group is expanding its activities, or in regions where the employment market is strained;
- develop these skills, in particular with the digitization of certain businesses.

In addition to risks relating to skills management, psycho-social risks may also affect the health and level of commitment of Group employees, in particular in the recent context where working from home has been rapidly implemented.

Lastly, although all Air Liquide employees have social security coverage that complies with local regulations, there are still disparities between countries that could potentially create inequitable situations within the Group. Furthermore, local standards may not, in some cases, be enough to provide adequate and fair social protection for employees.

1.2.2. Policy and procedures

The Group is committed to identify, attract and develop the necessary scientific, technical and digital skills required for its growth, the efficient working of its operations and innovation. The Human Resources policy defines the main rules, together with the roles and responsibilities of the different parties in their implementation, with respect to, among others:

- acquisition and sustainability of the necessary skills. Training is provided under the Air Liquide University brand. It is part of a structured program and is managed by a specific learning management system (LMS: Learning Management System);
- supporting employees in their personal development throughout their career, particularly with a centralized career and skills management tool (TMS: Talent Management System) and the communication of career advancement opportunities (TAS: Talent Acquisition System).

It should be noted that Air Liquide has begun to transform its HR processes, including the implementation of the integrated Workday tool, which will take place by 2024. The implementation of the talent management tool is already underway in certain geographies;

- changes in working methods within the Company. The organization of work must not only meet the demands and expectations of today's employees and the Company, but also those of tomorrow, while being based on the Group's fundamentals. The result of a co-creation bringing together more than 700 employees, the Group thus deployed in 2020 its new BeActEngage model, which allows its employees to develop in a safe, ethical and engaging environment to deliver sustainable performance;
- measuring and recognizing performance and contributions of all employees. In addition to employee remuneration and loyalty policies (regular capital increases reserved for employees), specific provisions aimed at promoting and sustaining certain skills, such as inventor and entrepreneur recognition programs, and the technical expertise development scheme (Technical Community Leaders) in a wide range of fields such as industrial operations, industrial safety and, more recently, digital and IT since 2019.

The Group ensures the building of a performance-focused, attractive and collaborative professional environment while also safeguarding the health and well-being of employees in the workplace.

The growth in working from home has increased the use of digital tools to ensure business continuity. Within the context of changes to the Group's organizational models, which were accelerated by the covid-19 pandemic, Air Liquide launched a global project in 2020 called "Next Normal" to support this shift in the organization of work.

With this project, the entities can provide their employees with:

- a new framework including team management;
- a supervised remote working policy;

- reorganization of workspaces;
- careful consideration of interactions with customers and patients;
- a new framework for Air Liquide's responsible travel policy.

To facilitate the deployment of the project, Air Liquide developed a reference guide in 2021. First shared with managers, the guide helps the entities to set up new working methods based on the initial global experience. Working groups were then organized with employees in the entities to validate the commitments.

In order to strengthen well-being at work, focus groups have been set up aiming at promoting the work-life balance of employees to strengthen their occupational well-being. This approach meets employees' expectations on this subject.

In addition, the Group continued to roll out the common basis of care coverage for all employees worldwide, in accordance with local regulations and the minimum standards set by Air Liquide.

- life insurance: an insurance with a compensation equivalent to one's year salary in the event of death;
- medical coverage: coverage for hospital inpatient and outpatient care;
- maternity leave: minimum 14 weeks leave paid at 100%.

These practices were incorporated into principles that were jointly developed with European social partners. In 2019, the Group partnered with the European Works Council to develop the "Care and Perform" initiative, whose purpose is to prevent psychosocial risks. This led to the creation of a charter based on principles of action linked to improvements in work scheduling, workloads and work-life balance. The content of this charter facilitated the conclusion of company agreements with social partners in order to offer new services to employees.

1.2.3. Performance

The actions undertaken by the Group are intended to contribute to the UN Sustainable Development Goal (SDG) 3 "Good health and well-being" and 8 "Decent work and economic growth".

Common basis of care coverage

As part of the ADVANCE objectives announced in 2022, Air Liquide's ambition is to ACT FOR ALL by committing to its employees. For this purpose, the Group has renewed its commitment to offer common basic social coverage to all employees by 2025.

From May to September 2021, entities were grouped by country so that gaps in their current coverage could be assessed and a plan devised to phase in upgrades by 2025 could be defined.

In 2022, the percentage of employees benefiting from this common basis of care coverage is 42%, compared with 34% at the end of 2021.

2025 objective	2022 results
<p>100% of employees with common basis of care coverage including death and disability benefits, health coverage and a minimum of 14 weeks of paid maternity leave.</p>	<p>42% of employees with common basis of care coverage including death and disability benefits, health coverage and a minimum of 14 weeks of paid maternity leave.</p>

Extra-financial Performance Declaration

A special team was set up within the Human Resources department to oversee the plan's roll-out and measure progress within the Group on an annual basis. In addition, in 2022, each hub consolidated a 2023-2025 roadmap to achieve the target set.

Citizen at Work

In this same context, the Group launched the Citizen at Work initiative in 2022 to enable its employees to actively serve their local communities.

For many years and throughout the world, Air Liquide's employees have been involved in helping local communities, with the support of subsidiaries' management or the Foundation.

To encourage this even further, the Group has created the Citizen at Work program, with the aim of giving employees the means to act and increasing its collective impact. This initiative, launched as a pilot scheme in 2022, provides subsidiaries with a framework to enable employees to volunteer in their local community. It will be gradually rolled out across the entire Group to reach 100% of entities by 2025. At the end of 2022, 43% of Group employees already had access to this program. Each project identified as part

of this new initiative is in line with Air Liquide's sustainable development objectives and enables employees to get involved in areas such as professional integration, children's learning, environmental protection, health and social inclusion.



EXAMPLES OF CITIZENS AT WORK INITIATIVES CARRIED OUT IN 2022

- Air Liquide France Industrie employees were involved in preparing 750 meals for distribution to disadvantaged people in the Paris region;
- Air Liquide employees in South Korea supported students throughout the year as part of a mentoring program called "ALTogether";
- Air Liquide USA employees took part in cleaning up a bayou in the Houston area, as part of the "Clean It Like You Mean It" Trash Bash operation.

2025 Objective	2022 Results
100% of employees with access to volunteer initiatives as part of the Citizen at Work program.	43% of employees with access to volunteer initiatives as part of the Citizen at Work program.

Employee training and engagement

As part of the BeActEngage – Trust and Grow program, the Group provides employees with the means to learn throughout their career. As a learning company, Air Liquide also encourages employees to pass on their knowledge and learn from each other, and peer-to-peer learning is an excellent opportunity to broaden their skills.

Air Liquide University has reinforced its offer of online learning ("e-learning") used by a large number of users (more than 60,200 in 2022) in a wide variety of fields (ethics, industrial safety, competition law, digital safety, management, etc.).

Following the health crisis, the digital transformation of many business lines and increased training for employees, the Air Liquide University has once again launched two virtual events open to the entire Group, which revolve around six themes: Management & Leadership, Sales & Marketing, Operational Excellence, Innovation, Climate & Energy Transition and HR professionals. This has resulted in 4,230 employees logged in to over 220 online sessions: webinars, virtual classes and learning paths. Those sessions are afterwards available in the Learning Management system and the University website.

Air Liquide University has also organized for the first time a Learning Festival, a two-week long virtual event dedicated to peer-based learning. All sessions were led by internal Air Liquide facilitators. The 120 internal facilitators and 51 creators of mini-tutorials passed on their knowledge to the 2,500 participants in more than 100 sessions and 45 micro-learning videos.

These events have, firstly, promoted interactions within the Group with participants from 72 countries and, secondly, revealed employees' creative and teaching abilities.

In 2019, the Group launched a program to measure and track commitment, My Voice. This program aims to assess and improve the experience and well-being of employees within the Group. It is based on a simple concept: listen, understand and act. Employee feedback is collected each year throughout the Group to better understand their expectations, identify and implement appropriate

actions and thus significantly improve their commitment. This level of attention to the employee experience is a key factor in attracting, retaining and developing employees. The response rate for the 2022 commitment survey was 77%, compared to 83% in 2021.

Air Liquide is committed to meaningful social dialog in all of its subsidiaries. This comes in different forms according to local regulations. In 2022, 86% of Group employees had access to a representation, dialog or consultation structure.

The performance review meeting is a key stage in employee development, as it facilitates a discussion between the employee and their manager on performance and development, the assessment and setting objectives for the year ahead. In 2022, 78% of Group employees had a performance review meeting with their immediate supervisor.

1.3. DISCRIMINATION

1.3.1. Risks associated with discrimination

Diversity is a priority of Air Liquide's Human Resources strategy and policy and the Group considers it a source of strength, creativity and performance. It is a fundamental element of the organization, in terms of both businesses and employees, and drives the Group's long-term performance.

The discrimination risk is part of the environment and society risks (described in chapter 2 of this Universal Registration Document on page 87).

Air Liquide carries out activities with high technological content in a large number of countries with different cultures. The Group's objective in this regard is to have teams comprising employees who represent the environment in which they operate. Each entity is therefore responsible for implementing action plans specific to its own environment and legal framework, which may include many forms of diversity (skin color, disability, ethnic origin, religion, sexual orientation, etc.).

Discrimination-related issues, particularly concerning gender diversity (gender disparities, particularly in technical or expert professions), disability and age could affect employees of the Group or of its partners.

1.3.2. Policy and procedures

The Group's objective is to increase diversity among managerial staff to better recognize the many cultures from which Air Liquide employee come and to improve gender equality. In this respect, quantified gender equality targets have been set for the Group. The local entities took an inventory of the current situation to define an objective at the level of the clusters and thus contribute to the overall objective.

Within the Human Resources organization, a team leads projects designed to improve diversity. The Group's roadmap is based on three criteria:

- deploy diversity objectives at all entities and implement corresponding action plans;
- improve all of the Group's Human Resources processes to reduce any bias and avoid all forms of discrimination;
- promote an inclusive culture to leverage the diversity within teams.

Each hub and business then implements its own roadmap and diversity action plans taking the local context into consideration. In this context, they analyze processes and practices, identify potential biases and implement corrective measures ("nudges") to limit these biases. Thus, during the regular reviews of talents with high potential, the diversity of profiles is taken into account, with the aim of continuing to increase diversity in the Group's key positions. This serves as a way to promote the many cultures present within the Group, and to strengthen gender equality.

Through its diversity policy, Air Liquide is therefore committed to combating all forms of discrimination.

1.3.3. Performance

The actions undertaken by the Group aim to contribute to the UN Sustainable Development Goals (SDG) 5 "Gender equality" and 10 "Reduced inequalities".

In 2022, Air Liquide employed 67,100 collaborators in 73 countries ⁽¹⁾.

Gender equality

PERCENTAGE OF WOMEN AMONG MANAGERS AND PROFESSIONALS



(a) Including Airgas since 2017.
 (b) The share of women among "Managers and Professionals" is rounded off in increments of 0.5%.
 (c) Including Airgas since 2016.

The Group has set a number of ambitious gender equality objectives, aimed at reaching a rate of:

- 35% women at the "Managers and Professionals" level, by 2025. These objectives are in line with the results obtained over the past ten years, which have seen the share of female "Managers and Professionals" within the Group increase from 26% in 2012 to 31.5% ⁽²⁾ in 2022;
- 25% of executive positions (senior executives) held by women by 2025.

The ambitious gender diversity objectives set for the "Managers and Professionals" and "senior executives" population, and for maintaining the gender diversity goal among the Group's "high potentials," are also intended to form a talent pool to ensure balanced gender representation on the Executive Committee by promoting female talents to higher levels of management. Moreover, in view of the new obligations laid down by the "Rixain" Law of December 24, 2021, the Group is also aligning its gender equality objectives with regard to the Executive Committee with those of the Law, i.e. 30% of women by March 1, 2026.

In 2022, women represented 47% of employees considered as high performers, this level has been increasing regularly for a number of years and must be maintained.

The Executive Committee includes four women among its 14 members.

More generally, and taking the highest level of responsibilities across the Group into account, women hold 24.8 % of all positions defined as "senior executives". This latter percentage has increased from 19% to 24.8% over the last four years.

Among the 10% of positions with the greatest level of responsibility within Air Liquide S.A., 28.4% of them are held by women; these women have an average age of 52.6 years and a median age of 55.6 years, i.e. 3.2 years and 0.8 years less respectively than the average age (55.8 years) and median age (56.4 years) for men. This difference is due to the policy to promote women to the highest levels of responsibility earlier on in their careers, and therefore eliminate career development discrepancies that occur in the absence of proactive measures in this area.

Finally, the promotion of an inclusive culture also contributes to a sustainable approach to diversity. Numerous initiatives are deployed within the Group to this end: events, learning opportunities, mentoring, networks and communities for different interest groups such as women's careers. Another recent example is the second edition of the movement for inclusion, which is a development opportunity for committed employees. For seven months, 220 of these "Inclusion & Diversity enthusiasts" designed and carried out experiments across the Group using innovative methods to promote inclusion in the work environment. These new approaches are disseminated throughout the organization in a spirit of continuous improvement.

⁽¹⁾ Excluding Russia, where the entities are in the process of being divested. They are no more consolidated following the loss of control on September 1st, 2022.
⁽²⁾ The share of women among "Managers and Professionals" is rounded off in increments of 0.5%.

Extra-financial Performance Declaration

2025 Objectives		2022 Results	
35%	women among Group managers and professionals.	31.5% (a)	women among Group managers and professionals.
25%	women at the highest level of responsibility (senior executives).	24.8%	women at the highest level of responsibility (senior executives).

(a) The share of women among "Managers and Professionals" is rounded off in increments of 0.5%.

Gender and equal pay

In France, the law of September 5, 2018, known as the "Loi avenir professionnel", requires companies with more than 50 employees to implement an annual mechanism for assessing gender pay gaps, the result of which is a public social score for the Company (out of 100 points). The Professional Equality Index and five related indicators must also be made available to the Social and Economic Committee and transmitted to the Labor administration.

In 2022, the Group's 30 companies with at least 50 employees in France were audited. The weighted average Professional Equality Index stands at 90.5/100, maintaining the trend compared to 2019, 2020 and 2021. The company L'Air Liquide S.A. published its fifth annual Professional Equality Index, which reached 97/100.

Outside of France, the Group initiated a common process to assess the gender pay gap by creating an internal index based on the French index but tailored to Air Liquide's global presence. It was deployed for the first time in 2019 for entities with more than 400 employees. This index from the year 2021 onwards is calculated on the basis of the weighting of four criteria:

- pay gap between women and men using the median salary per job grade;
- individual wage increase gap between women and men per job grade;
- percentage of employees having received a salary increase after a maternity leave ;
- gender diversity among the 10 highest remunerations.

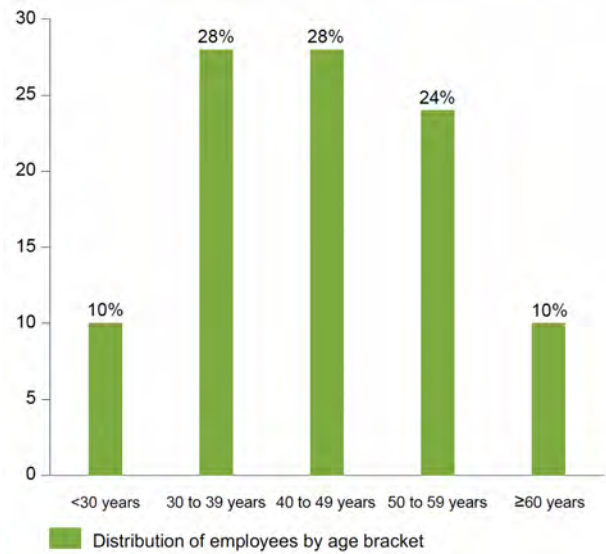
For the year 2021, the scope of the index has been expanded to include entities with more than 200 employees, and the calculation method has been revised. The changes made, including the use of median salary and job classification, aim to obtain a more accurate result.

The result of the 2021 index, calculated in 2022, is 75/100 based on 74% coverage of the Group's employees (entities with more than 200 employees), while the result of the 2020 index was 82/100 for a scope covering 61% of the workforce (entities with more than 400 employees). The lower score in 2022 is due in particular to the expansion of the index to entities with more than 200 employees, thus including countries with greater social disparities. An action plan has been deployed:

- part of the "Merit Increase" budget was allocated to filling gender wages gaps;
- awareness workshops with HR population were organized

Age

DISTRIBUTION OF EMPLOYEES BY AGE BRACKET IN 2022



The Group is committed to fostering better qualifications and training programs for young people to facilitate their integration into the workplace.

Internship and apprenticeship contracts are encouraged by the Group. In France, 557 young people have benefited from work-study contracts and 468 from an internship, combining theoretical learning at their university or school and a practical internship at Air Liquide.

Seniors will represent an increasing share of Air Liquide employees in the coming years. Their contribution to mentoring programs (notably the Technical Community Leaders program), and training programs aimed at younger generations will be further promoted.

Various initiatives have been introduced within the Group to ensure the support and engagement of employees nearing retirement age. For example, in France:

- 26 people became skills sponsors following the pilot launched in France in 2018;
- "Youth-employment contracts" were continued. They include initiatives promoting the hiring and retention of older employees.

International exchange programs are in place to attract and develop young talents: ALLEX programs for executives and EVE for technicians (those programs include more than 600 people since they were first created).

2025 Objectives		2022 Results	
33%	young graduates among managers and professional recruitments.	22.4% (a)	young graduates among managers and professional recruitments.

(a) Indicator calculated annually.

Disability

Launched in 2017 at the European level, the HandivAirsity initiative aims to encourage diversity by integrating people with disabilities into teams.



“Our differences make our performance.” This slogan carries a strong conviction. The inclusion of disabilities is fully in line with the policy to promote diversity within Air Liquide.

This desire is not new, it has been embodied since 2007 in successive agreements in France which have advanced the policy of welcoming, maintaining and promoting the professional development of people with disabilities. Air Liquide is committed to finding solutions to keep disabled people in the workplace. The following adjustments are planned to accommodate for disabilities in the workplace:

- ergonomic studies and adaptation of the workstation with regard to the capacities of the person;
- specific equipment and tools;
- adaptation of methods of access to work premises and specific training services;
- transportation and moving assistance.

Air Liquide makes teams aware of the inclusion of disabilities in order to facilitate the reception and professional integration of workers with disabilities in the Company. The French subsidiaries have awareness-raising plans in order to strengthen the level of information for all players and fight against any prejudices that may persist. In 2022, a survey of employees in a selection of French entities was carried out in order to gain a better understanding of the obstacles to the inclusion of people with disabilities in the teams and thereby determine appropriate actions. The results of this survey will be shared more widely with the European disability coordinators. The French entities

participate in particular in DuoDay, a day where they welcome a person with a disability paired with a volunteer professional.

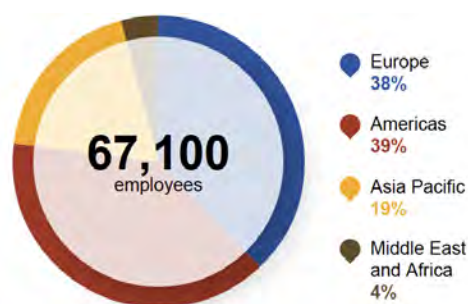
Within a scope covering around 6,000 employees based in France, a fifth Disability agreement for a period of three years (2020-2022) was signed at the end of 2019. The aim of this agreement is to continue with measures already implemented in favor of people with disabilities and thus further improve the direct employment rate to reach 4.2% in 2022 vs. 3.3% in 2018. The 2021 rate, calculated in April 2022, is 4.43% (4.35% in 2020). Negotiations with the labor unions began in late 2022 for the signature of a sixth Disability agreement for the 2023-2025 period.

More widely in Europe, other concrete actions are also carried out to change the way disability is seen in operations and accelerate the pace of recruitment: campaign ambassadors and a working group with managers.

Nationality

There are 35 different nationalities among Air Liquide's senior managers. The Group's Board of Directors comprises four nationalities. In terms of total employees, more than 150 different nationalities are employed by the Group.

BREAKDOWN OF EMPLOYEES BY GEOGRAPHIC AREA



2. Environmental stakes

2.1. CLIMATE: GREENHOUSE GAS EMISSIONS

2.1.1. Greenhouse gas emissions

Air Liquide acknowledges the importance and urgency of climate issues. The Group intends to play an active role in achieving the targets set out in the Paris Agreement, which defines a global framework to avoid dangerous climate change by limiting global warming to well below 2°C compared with pre-industrial levels, and by continuing efforts to limit it to 1.5°C. In this regard, the Group has committed to achieve carbon neutrality by 2050. Air Liquide intends to contribute to carbon neutrality by addressing its entire value chain, covering direct emissions (Scope 1), indirect emissions related the procurement of electricity and steam (Scope 2), as well as the main indirect emissions of Scope 3. Two

major intermediate milestones support this long-term objective: the start of reduction of absolute CO₂ emissions around 2025, followed by a -33% reduction in Scope 1 and Scope 2 emissions ⁽¹⁾ in 2035 compared with a 2020 baseline in "market-based" methodology. Moreover, the Group has maintained the objective set in 2018 to reduce its carbon intensity ⁽²⁾ by -30% by 2025 compared with 2015. The Group's trajectory was validated by the Science Based Target initiative (SBTi) in May 2022 and has been determined to be consistent with a scenario well below 2°C compared with pre-industrial levels.

⁽¹⁾ In tonnes of CO₂-equivalent for Scopes 1 and 2, in a "market-based" methodology (see methodology for calculating scopes in paragraph 2.2.4 of the Annual Reporting section of chapter 5, pages 426 and 427), restated, from 2020 and each subsequent year, to include the emissions of the assets for the full year, taking into account (upwards and downwards) changes in scope having a significant impact on CO₂ emissions.

⁽²⁾ In kg CO₂-equivalent/euro of current operating income before depreciation and amortization and excluding IFRS 16 at 2015 exchange rates on Scopes 1 and 2 of greenhouse gas emissions in a "market-based" methodology (see methodology for calculating scopes in paragraph 2.2.4 of the Annual Reporting section of chapter 5, pages 426 and 427, as well as reconciliation in the Performance indicators paragraph of chapter 1, page 61).

SCOPES OF GREENHOUSE GAS EMISSIONS FOR AIR LIQUIDE

The Greenhouse Gas (GHG) emissions that constitute a company's carbon footprint are categorised according to three perimeters, called "Scopes", depending on the origin of the emissions. Air Liquide follows this classification for the management of its carbon footprint.

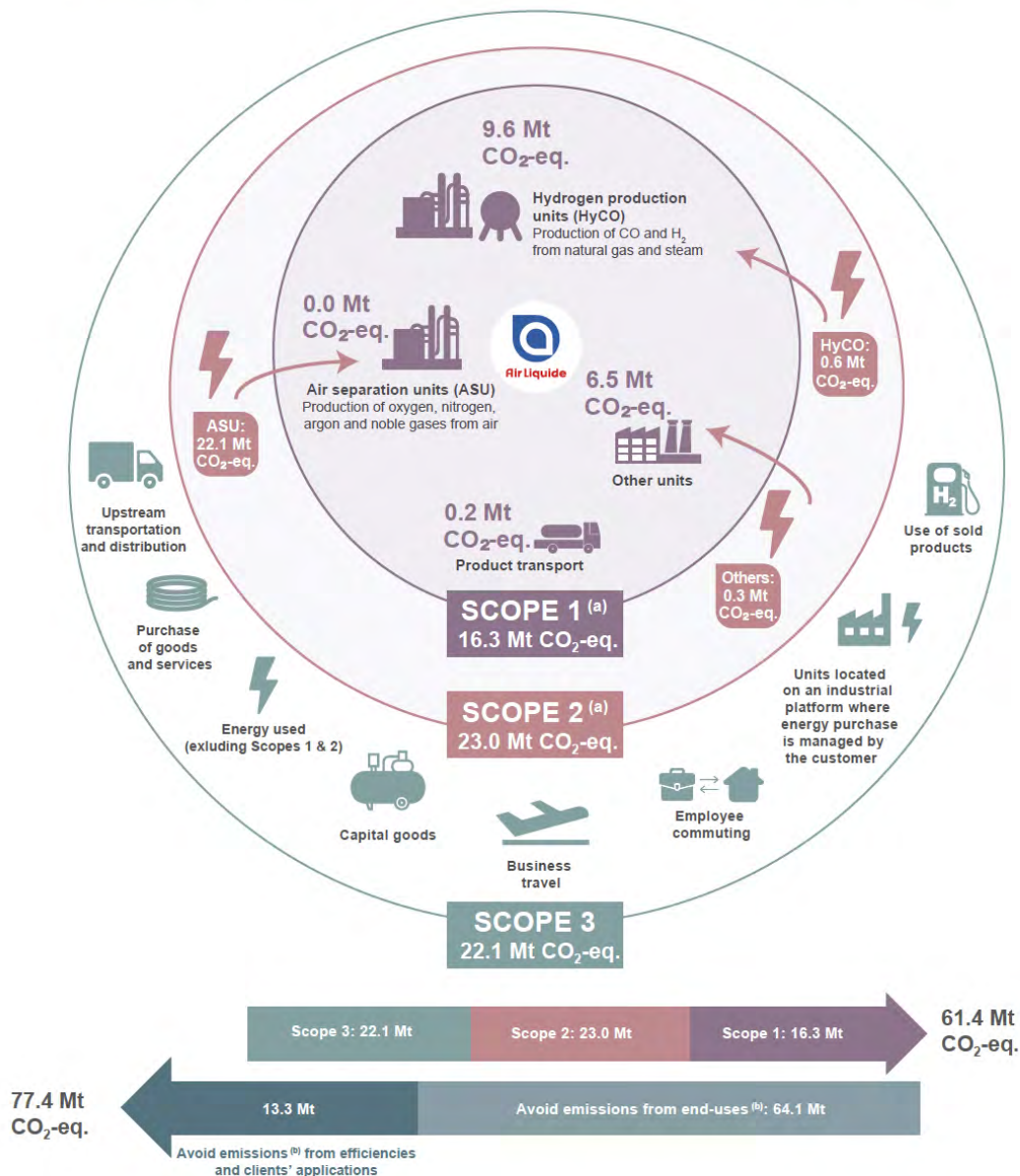
Air Liquide's GHG emissions balance sheet takes into account the 6 greenhouse gas highlighted by the Kyoto Protocol and is carried out in accordance with the GHG Protocol's carbon accounting method proposed by the World Resource Institute and the World Business Council for Sustainable Development.



SCOPE 1 Direct emissions generated by all emission sources owned or controlled by Air Liquide.

SCOPE 2 Indirect emissions related to the production of electricity or steam purchased outside the Group.

SCOPE 3 Other indirect emissions related to the life cycle of products sold by Air Liquide.

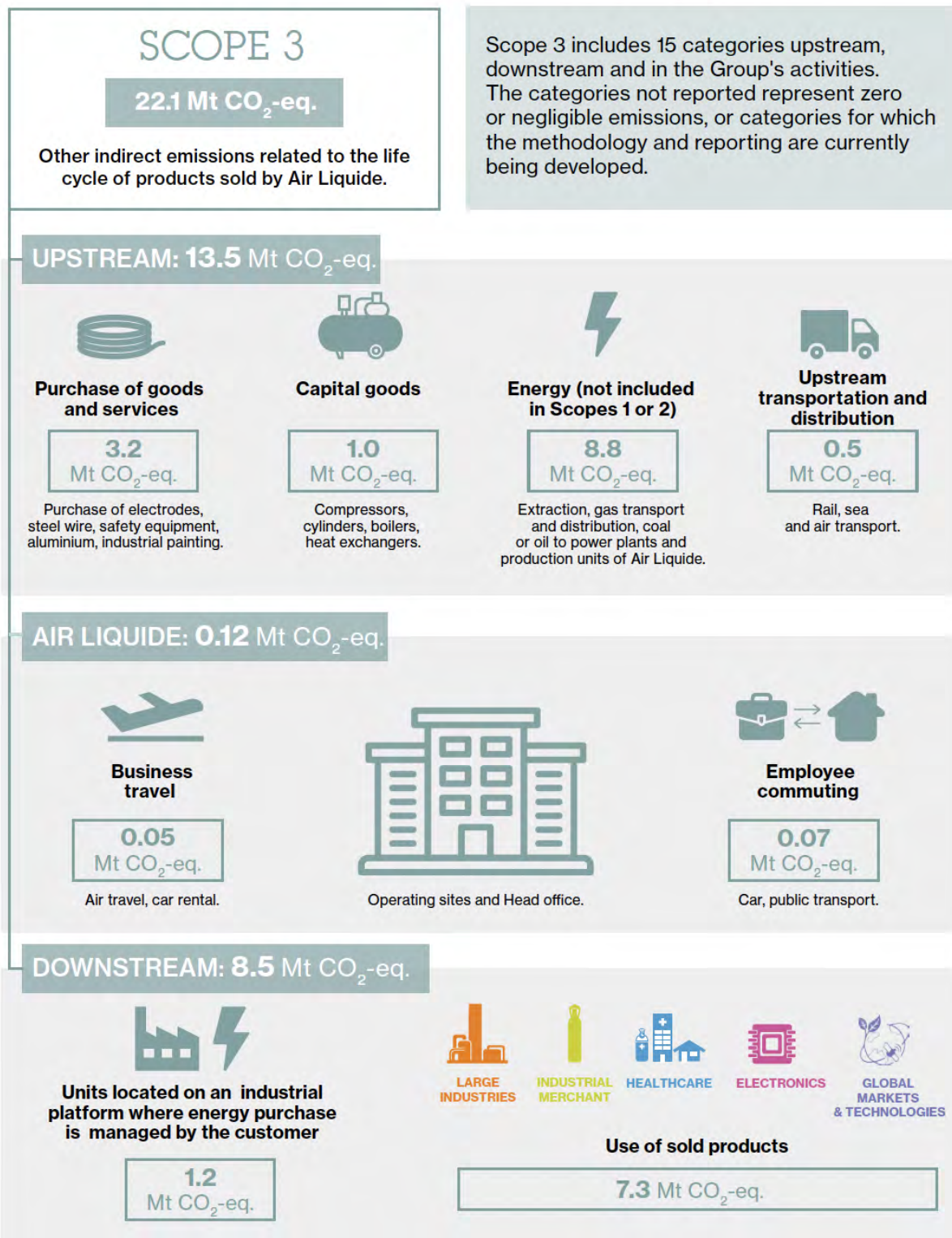


The data presented have been rounded up to the tenth.

- (a) Emissions are reported in million tonnes of CO₂ equivalent using "market-based" methodology (see methodology for calculating scopes in paragraph 2.2.4 of the Annual Reporting section of chapter 5, pages 426 and 427).
- (b) Avoided emissions are emissions reductions achieved by activities, products or services that emit less GHGs than would have been emitted in a reference scenario. See reporting methodology on page 434 of this chapter. They come from the industrial and energy efficiency allowed by the out-sourcing model as well as emissions avoided downstream thanks to the use of the Group's products and solutions. A large part of these avoided emissions comes from the application of hydrogen in the production of ultra-low sulfur diesel, which avoids black carbon emissions, which can contribute to global warming.

SCOPE 3 EMISSIONS

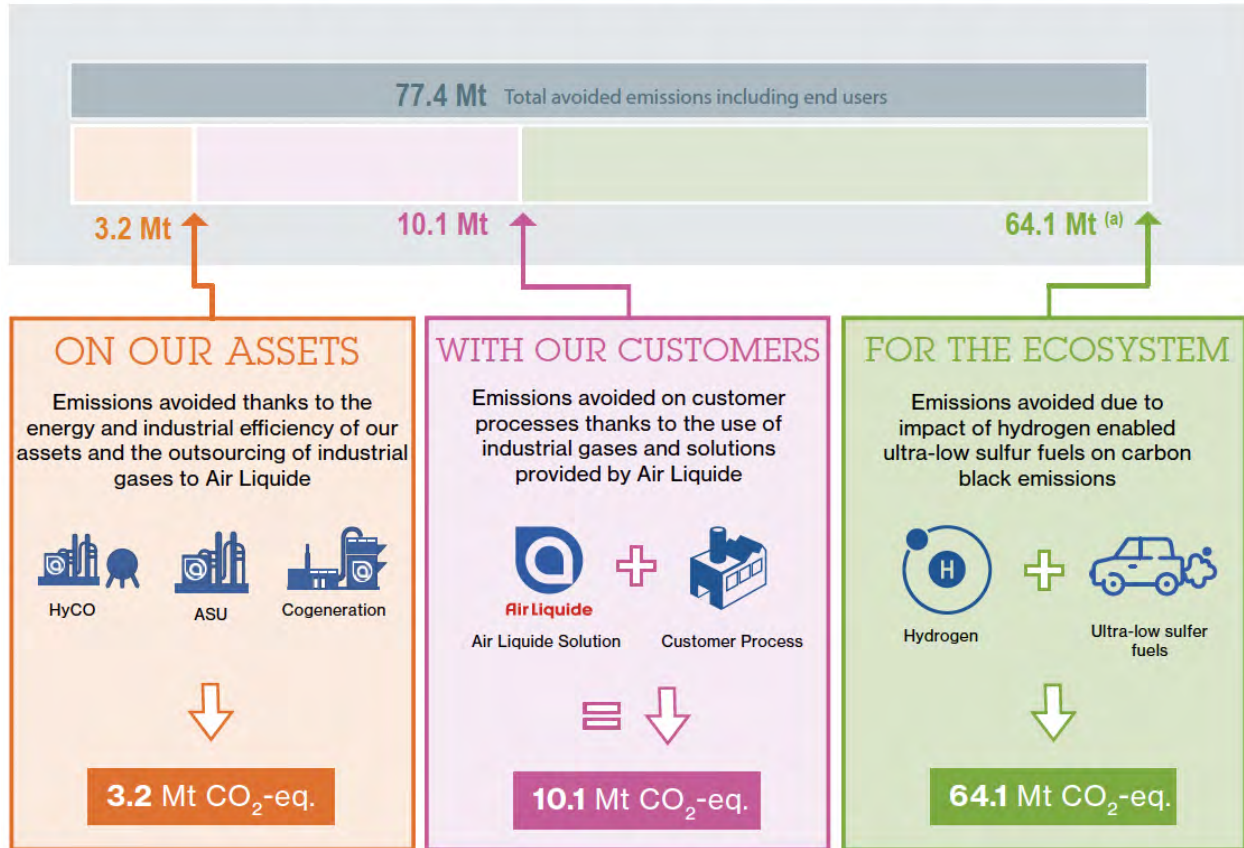
To improve the management of its carbon footprint, Air Liquide also carries out its Scope 3 assessment which measures its impact on the entire value chain of products.



The definition and methodology of Scopes 1, 2 and 3 are detailed in the Annual Reporting section of Chapter 5, paragraph 2.2.4 on pages 426 and 427. CO₂-eq. stands for CO₂-equivalent using the values of the Intergovernmental Panel on Climate Change (IPCC) for the 100-year time horizon Global Warming Potential (GWP).

AVOIDED EMISSIONS

Technological innovations improve the energy and industrial efficiency of our assets and those of our customers, thus avoiding greenhouse gas emissions.



CO-CONSTRUCTING SOLUTIONS WITH ITS CUSTOMERS REPRESENTS A MAJOR FOCUS FOR THE GROUP IN ORDER TO DEVELOP OFFERS. THESE SOLUTIONS SIGNIFICANTLY LIMIT CO₂ EMISSIONS LINKED TO CUSTOMER ACTIVITIES.

CO₂ emissions **avoided** through the use of Air Liquide products or process outsourcing



CO₂ emissions **captured** by Air Liquide and used for other applications



(a) Avoided emissions are emissions reductions achieved by activities, products or services that emit less GHGs than would have been emitted in a reference scenario. See reporting methodology on page 434 of this chapter. They come from the industrial and energy efficiency allowed by the out-sourcing model brings as well as from the emissions avoided downstream thanks to the use of the Group's products and solutions. A large part of these avoided emissions come from the application of hydrogen in the production of ultra-low sulfur diesel, which avoids black carbon emissions, which can contribute to global warming.

2.1.2. Climate risk: greenhouse gas emissions

Climate risk (greenhouse gas emissions) is part of the Environment and Society risks (described in Chapter 2 of this Universal Registration Document on page 86).

Air Liquide's business model is based on the outsourcing of the industrial gas needs of its customers who often emit large quantities of greenhouse gases, in particular in the metals, chemicals and refining industries. This outsourcing is justified by Air Liquide's expertise which allows them to optimize the energy consumption of production tools and favor low-carbon energy procurement. However, it leads to the transfer of a portion of the customer's greenhouse gas emissions to the Group.

Almost 85% of Air Liquide's large production units are Air Separation Units, which do not use any combustion processes, hence do not directly generate any CO₂ emissions and consume almost exclusively electrical energy. Electricity used by the Group to power these units generates CO₂ emissions at electricity suppliers, and are classified as indirect or Scope 2 emissions.

The Group's two activities that directly emit CO₂ are hydrogen production and co-generation of steam and electricity. These account for nearly 15% of large production units and use combustion processes emitting CO₂, known as direct emissions – Scope 1.

In the interests of defining and developing mitigation measures for this risk, Air Liquide has defined scenarios to assess the impact of this risk on its activities.

SCENARIOS FOR AIR LIQUIDE'S CLIMATE STRATEGY

In order to develop and manage the achievement of its climate objectives, Air Liquide draws on scenarios which allow it to:

- plan its activities and assets in a variety of prospective scenarios to guarantee the Group's resilience going forward and feed its strategy;
- develop an economic growth strategy which incorporates a reduction in the Group's emissions in line with trajectories that are compatible with the Paris Agreement;
- analyze the possible impact of public greenhouse gas emission reduction policies on the Group and on its existing assets, as well as any dependence of the Group's carbon trajectory on these policies, in particular those aimed at making the energy sector and end markets carbon-free;
- manage the Group's carbon trajectory by monitoring, notably, the impact of new investments made on the carbon footprint.

As the Group's activities are global and cover a wide-range of sectors, Air Liquide relies on various sources to develop these analyses. These include work by the Intergovernmental Panel on Climate Change (IPCC) based on the findings of climate science, and that of the International Energy Agency (IEA).

CLIMATE TRAJECTORY

Science Based Targets commitment



DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

In July 2019, the Group joined the Science Based Targets initiative,(SBTi), a certification created by a coalition of stakeholders committed to environmental issues.

The Science Based Targets initiative provides companies with a methodology for setting a GHG emissions reduction objective based on climate science and in line with a well below 2°C scenario or a 1.5°C scenario.

Following the submission of its application to SBTi in November 2021, Air Liquide's objectives have been approved by SBTi, and determined in May 2022 to be compliant with a well below 2°C trajectory, a "première" for industrial gases. However, as of today, there is no sectoral approach specific either to the chemicals sector in general or to Air Liquide's activities, which serve a wide variety of sectors of the economy. The objectives submitted by Air Liquide aim, for Scope 1 and Scope 2 emissions in absolute terms, at a 35% reduction in 2035 compared to a base year of 2021, considered as the first year with full deployment of "market-based" reporting. Air Liquide has therefore joined, together with other stakeholders, an SBTi-led initiative to develop a sectoral approach for the chemical sector so it can continue to contribute to the development of methodologies for the chemical and industrial gases sector, and enhance the value of its climate protection actions, both in terms of its emissions and the resulting environmental benefits to its customers.

Air Liquide has signed the French Business Climate Pledge, demonstrating its commitment to take concrete action for a low-carbon society.

The Group contributed to the Assessing Low Carbon Transition (ACT) initiative aiming to develop tools to assess low carbon strategies in the chemical sector.

Extra-financial Performance Declaration

2.1.3. Policy and procedures

To reinforce the climate objectives announced in November 2018, which set the framework under which the Group takes active measures for the climate in its operations, with its customers and ecosystems by offering low-carbon solutions, Air Liquide announced new sustainable development objectives on March 23, 2021. In line with the Paris Agreement, and to face the urgency of taking climate change and energy transition into account, Air Liquide has shown its commitment by setting itself the ambition of achieving carbon neutrality by 2050, with two major intermediate milestones:

- the start of reduction of absolute CO₂ emissions around 2025;
- a -33% reduction in Scopes 1 and 2 CO₂ emissions ⁽³⁾ by 2035, compared with a “market-base” ⁽⁴⁾ 2020 baseline.

The objective of reducing carbon intensity by -30% by 2025 compared to 2015 ⁽⁵⁾ emissions has been maintained.

In 2022, Group's Climate Policy has been added to the BlueBook ⁽⁶⁾, to consolidate the principles governing Group's management of Climate risks, covering the full value chain.

The monitoring and achievement of the Group's climate objectives rely on:

- the internal greenhouse gas emissions procedure, which sets out the monitoring of current greenhouse gas emission regulatory obligations with which the Group must comply; the methodology for calculating Scopes 1 and 2 emissions, as well as the reporting scope and frequency;
- integration of the monitoring of the CO₂ trajectory performance in the Group's management process, in particular the CO₂ budgeting process that now includes the allocation of a carbon budget to the different geographical areas, as well as quarterly monitoring by geography and business line at the Executive Committee level;
- a review of investment decisions, taking climate factors – and in particular a CO₂ price – into consideration, along with an analysis of the opportunities and risks associated with climate transition. For all its projects, for all geographies, even those without a current price for CO₂, Air Liquide includes in its investment decision process a CO₂ price sensitivity study. Different values are used, including a baseline price of 50 euros per tonne of CO₂, the current local price and a high value of 100 euros or more per tonne, depending on geography and context;

- the implementation of the “Climate Champions” network and the regular review of the geographical decarbonization plans. The plans define the projects to be carried out in order to reduce CO₂ emissions in line with the Group's objectives, such as the supply of renewable energy, CO₂ capture on hydrogen production units, energy efficiency programs or vehicle fleet conversion programs;
- the assumption of the introduction, in the regions in which the Group operates, of public policies aimed at stepping up the transition toward a low-carbon economy that are in line with a “well below 2°C” trajectory.

The main lines of the Group's action plans are detailed in the “Acting for a low-carbon society” infographics on pages 361 to 364.

In order to reduce its indirect emissions related to power procurement (Scope 2 emissions), Air Liquide is increasing its sourcing of renewable power, using several approaches depending on local conditions allowing access to renewable power.

The main approach is the signature of long term Power Purchase Agreements (PPA). However, the Group may purchase certificates such as Guarantees of Origin that may or may not be bundled with power delivery especially when integration of a PPA into the sourcing portfolio is uneasy or, in areas supplied by regulated utilities, through “green tariffs”.

SCOPE 3 COMMITMENT

Aware of the importance of contributing to the achievement of carbon neutrality throughout its value chain, in 2022, Air Liquide worked on developing its Scope 3 emissions reduction strategy. The value of its customer relationships has led the Group to make a pledge that 75% of its 50 largest customers will have a stated carbon neutrality commitment by 2025 and 100% by 2035. In addition, Air Liquide will continue its in-depth analysis of all Scope 3 emission categories in 2023, leveraging the work carried out by the Expert Advisory Group (EAG) led by SBTi.

⁽³⁾ In tonnes of CO₂-equivalent for Scopes 1 and 2, in a “market-based” methodology (see methodology for calculating scopes in paragraph 2.2.4 of the Annual Reporting section of chapter 5, pages 426 and 427), restated, from 2020 and each subsequent year, to include the emissions of the assets for the full year, taking into account (upwards and downwards) changes in scope having a significant impact on CO₂ emissions.

⁽⁴⁾ Scopes calculation methodology explained in paragraph 2.2.4 of the Annual Reporting section of Chapter 5 page 426 and 427.

⁽⁵⁾ In kg CO₂-equivalent/euro of Operating income recurring before depreciation and amortization and excluding IFRS 16 at 2015 exchange rates for Scopes 1 and 2 of greenhouse gas emissions in a “market-based” methodology (see methodology for calculating scopes in paragraph 2.3.4 of the Annual Reporting section of chapter 5, pages 426 and 427, as well as reconciliation in paragraph Performance indicators of chapter 1, page 61).

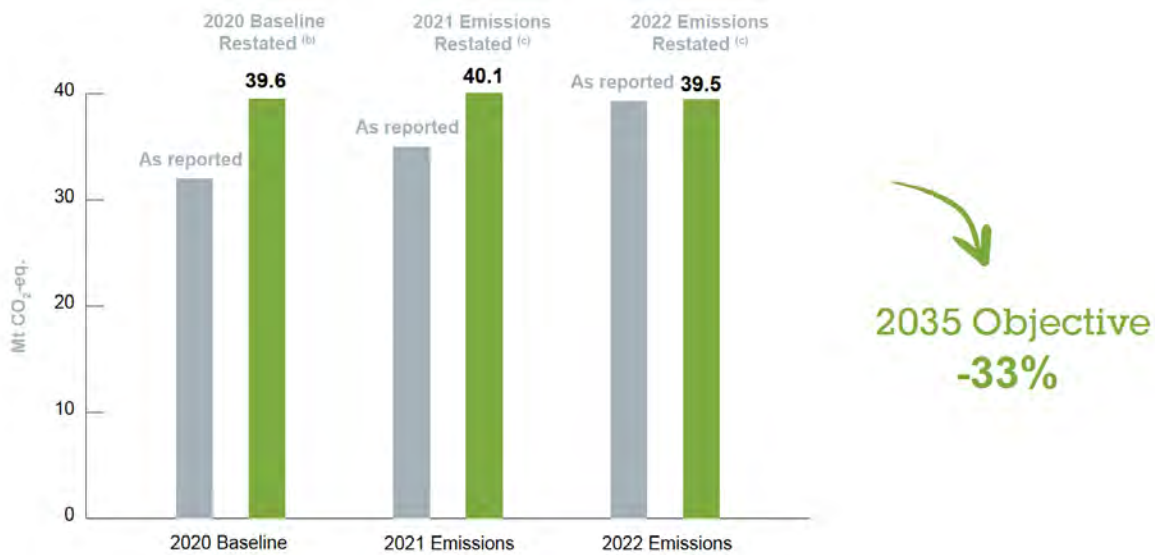
⁽⁶⁾ A global reference manual, the BlueBook brings together Air Liquide's codes, policies and procedures and forms the basis of the Group's internal control and risk management system.

2.1.4. Performance

The actions undertaken by the Group are intended to contribute to UN Sustainable Development Goals (SDGs) 7 “Affordable and clean energy”, 9 “Industry, innovation and infrastructure”, 11 “Sustainable cities and communities”, 13 “Climate action”, and 17 “Partnerships for the goals”.

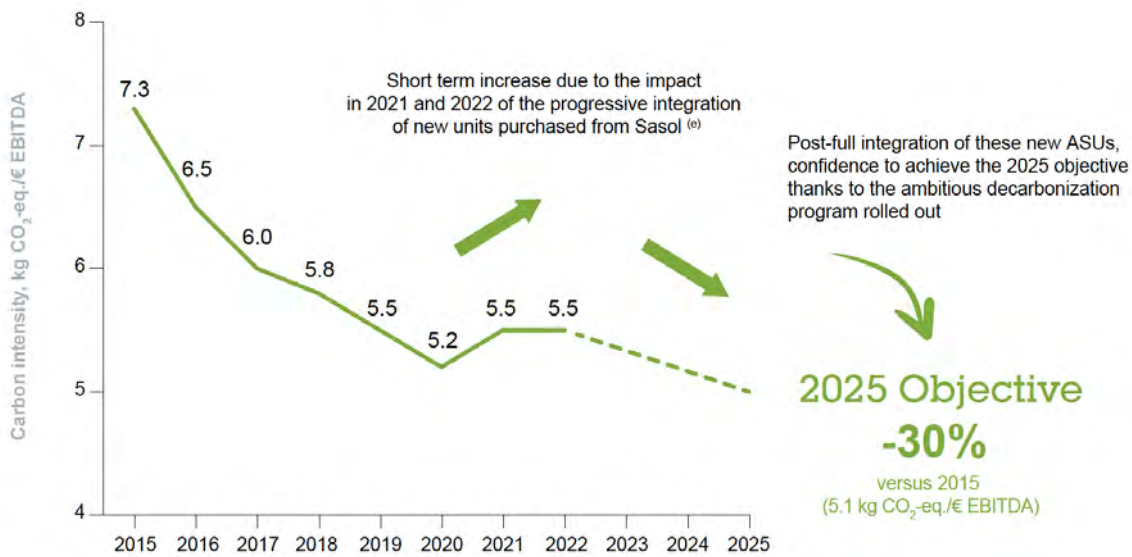
In 2022, Air Liquide's reduction of absolute CO₂-equivalent emissions and carbon intensity performance is represented below:

Reduce our **absolute CO₂-equivalent emissions** ^(a) by **-33%** by 2035, vs. 2020, with an inflection point around 2025



- (a) All absolute emissions figures in million tonnes of CO₂-equivalent Scopes 1 and 2 emissions, in a “market-based” methodology, (see methodology for calculating the Scopes in paragraph 2.2.4 of the Annual Reporting section of chapter 5, pages 426 and 427).
- (b) Baseline restated to include 2020 emissions of assets, taking into account (upwards and downwards) changes in perimeter since 2020 that have had a significant impact on CO₂ emissions.
- (c) 2021 and 2022 emissions restated to include in the 2021 and 2022 emissions figures, taking into account (upwards and downwards) changes in Scope that have had a significant impact on CO₂ emissions, to provide a figure comparable to the restated 2020 baseline.

Reduce our **carbon intensity** ^(d) by **-30%** by 2025, vs. 2015



- (d) In kg CO₂-equivalent per euro of Operating income recurring before depreciation and amortization at 2015 exchange rate and excluding IFRS 16 for greenhouse gas emissions Scopes 1 and 2, in “market-based” methodology (see the methodology for calculating the Scopes in paragraph 2.2.4 of the Annual Reporting section of chapter 5, pages 426 and 427, as well as the reconciliation in paragraph Performance indicators of chapter 1, page 61).
- (e) Following the takeover of the Sasol Oxygen Units in South Africa on June 24, 2021, the carbon Intensity of the Group increases in 2021 (half year impact, as from the acquisition date) and continues in 2022 (full year impact) compared to 2020. However, given the ambitious decarbonization plan of the Group, including for the Sasol project, this does not compromise the -30% intensity reduction objective to reach a carbon intensity of 5.1 (“market-based” methodology) by 2025 vs. 2015 baseline.

Extra-financial Performance Declaration

The Group's total CO₂-equivalent emissions, on a comparable basis to the restated 2020 baseline (restated emissions ⁽⁷⁾), have remained stable for the second consecutive year (-0.3% compared to 2020), despite the strong growth in the Group's activity. This reflects the Group's strong commitment to controlling its CO₂ emissions trajectory and the measures implemented.

Reported emissions increased in 2022 due to the full-year inclusion of emissions related to the assets acquired from Sasol, which only contributed to reported emissions in 2021 from the date of their integration on June 24, 2021. The implementation of emission reduction plans in the various regions where the Group operates have helped moderate the increase of emissions, despite its strong growth in activity.

As a result, the volumes of renewable electricity, in the electricity supply, have increased by approximately 10% in 2022. The

growth in the volume of renewable electricity, in the Group's supply, is set to continue and accelerate, as shown by the signing of several long-term contracts (PPAs) in 2022, namely with Vattenfall in the Netherlands, with Shell Energy Europe Limited and with Enel Green Power, jointly with Sasol, in South Africa. In addition, the Group continues to develop CO₂ capture projects to reduce emissions associated with hydrogen production, such as the Kairos@C and Antwerp@C projects.

Following the acquisition of the Sasol air separation units in South Africa on June 24, 2021, the Group's carbon intensity increased in 2021, reflecting only half-year impact, from the date of acquisition. The 2022 emissions reflect the impact of a full year. Nevertheless, the control of the CO₂ emissions trajectory and the Group's financial results have allowed the carbon intensity to stabilize from 2022.

⁽⁷⁾ Baseline restated to include 2020 emissions of assets, taking into account (upwards and downwards) changes in perimeter since 2020 that have had a significant impact on CO₂ emissions.

Air Liquide is committed to a low-carbon society by mobilizing levers to reduce the carbon impact of its assets, together with its customers, and more extensively by supporting the development of new ecosystems.

ACTING FOR A LOW-CARBON SOCIETY

Air Liquide is convinced that climate change and energy transition must be absolute priorities of business and social concerns. Through its climate objectives and initiatives, Air Liquide is aligned with the Paris agreement. Air Liquide's objective of reducing its Scopes 1 and 2 emissions by 2035 was validated by the Science Based Targets initiative (SBTi) in May 2022 as suitable and aligned with climate science ^(a).

AN APPROACH INTEGRATING ALL OUR ACTIVITIES THROUGH 3 AXES

As it seeks to reconcile growth with care for the environment, Air Liquide is drawing upon its ability to innovate. This work is part of a global and ambitious approach that includes:
 the measures it takes to limit its environmental footprint,
 developing sustainable solutions for its customers and taking part in the emergence of a low-carbon society.

TAKING ACTION ON OUR ASSETS

Committing to reduce the impact of our production, distribution and service activities

TAKING ACTION WITH OUR CUSTOMERS

Innovating with our customers for a cleaner industry

TAKING ACTION FOR OUR ECOSYSTEMS

Contribute to the emergence of a low-carbon society

OUR LEVERS



Source **low-carbon energy**

OUR LEVERS



Reduce the **carbon footprint** of our products

OUR LEVERS



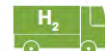
Promote hydrogen for the **energy transition**



Improve the energy **efficiency** of our assets



Co-develop **innovative processes** with our customers



Contribute to the **development of clean mobility**



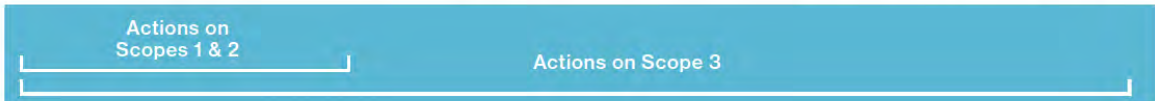
Roll-out **innovative technologies**



Develop innovative **carbon capture technologies**



Contribute to a **circular economy** through the development and diversification of **biomethane**



(1) Air Liquide announced its greenhouse gas emission reduction objectives for Scopes 1 and 2 in March 2021 on a 2020 baseline. Following the acquisition of the Sasol air separation units in South Africa on June 24, 2021, Air Liquide has presented to SBTi a target on a 2021 baseline in order to integrate this significant change in scope (see page 357).

TAKING ACTION WITH

OUR ASSETS

Reduce the carbon impact of our production, distribution and service activities.

**Objective
2050**

Carbon neutrality

with two major intermediary milestones in 2025 and 2035:

2025

Begin CO₂ emissions **reduction in absolute value** around 2025

Maintaining the **-30% carbon intensity reduction target** ^(a)

2035

-33% ^(b) **decrease in its Scopes 1 & 2 CO₂ emissions** by 2035

3 LEVERS TO ACT



1 Source low-carbon energy

- Accelerate the sourcing of **renewable** and **low-carbon electricity**
- Increase the use of **renewable raw materials**



2 Improve the efficiency of our assets

- Deploy **efficient** production technologies
- Reduce emissions related to **delivery of products**



3 Roll out innovative technologies

- **Capture carbon** for use or storage
- Produce **hydrogen** in a **sustainable way**

2022 Examples



Netherlands

Air Liquide has signed one of its biggest long-term Power Purchase Agreement (PPA) to date with approximately 115 MW of new offshore wind electricity, purchased from Vattenfall in the Netherlands. Over the contract duration, the wind-generated electricity will avoid the emission of up to 3.5 million tonnes of CO₂.



South Africa

Air Liquide and Sasol have signed two Power Purchase Agreements (PPA) with Enel Green Power for the long-term supply of a total capacity of 220 MW of renewable power to Sasol's Secunda site, in South Africa, where Air Liquide operates the biggest oxygen production site in the world.



Japan

Air Liquide was awarded long-term contracts for the supply of ultra high purity industrial gases by two semiconductor market leaders in Japan. Air Liquide will build, own and operate four energy efficient gas plants that will enable the Group to avoid the emission of an estimated 35,000 tonnes of CO₂ per year.



France

Air Liquide received support from the French State, to launch its Normand'Hy large scale renewable hydrogen production project. This electrolyzer, with an initial 200 MW capacity, will be one of the first electrolyzers of this size in operation in the world, to decarbonize industry and mobility.

(a) In kg CO₂-equivalent/euro of Operating income recurring before depreciation and amortization at 2015 exchange rate and excluding IFRS 16 for greenhouse gas emissions Scopes 1 and 2 reported using the "market-based" methodology (see methodology of the Scopes calculations in the paragraph 2.2.4 in the Annual Reporting section of the chapter 5, pages 426 and 427 and reconciliation in paragraph Performance indicators of Chapter 1, page 61).

(b) In tonnes of CO₂-equivalent of Scopes 1 and 2 using "market-based" (see methodology of the Scopes calculations in the paragraph 2.2.4 in the Annual Reporting section of the chapter 5, pages 426 and 427), restated to include from 2020 and each subsequent year, emissions of the assets for entire year, taking into account (upwards and downwards) changes in scope having a significant impact on CO₂ emissions.

TAKING ACTION WITH

OUR CUSTOMERS

Innovating with our customers for a cleaner industry.

Air Liquide solutions can take two forms:

Solution 1: Energy and industrial efficiency of our assets.

Air Liquide offers products with a lower carbon footprint than if they had been produced directly by its customers.

Solution 2: Reducing our customers' carbon footprint.

Co-development of solutions that reduce the carbon footprint of our customers' industrial processes (oxycombustion, CO₂ capture, storage and reuse).

3 LEVERS TO ACT



1 Reduce the carbon footprint of our products

- Outsourcing customer processes allows **mutualization of production** assets for better **energy efficiency**
- Reduce CO₂ emissions from **transportation** by:
 - Installing units directly on customer sites
 - Using new generation cylinders
- Deploy a **low-carbon offer**



2 Co-develop innovative processes with our customers

- Deploy solutions to **support the transformation** of customers' processes
- Deploy **new production processes**: Oxy-combustion, hydrogen injection, CO₂ capture
- **Reduce customers' energy consumption and CO₂ emissions**



3 Develop innovative carbon capture technologies

- Develop innovative **carbon capture technologies**

2022 Examples



France

Air Liquide and Lhoist have signed a Memorandum of Understanding with the aim to decarbonize Lhoist's lime production plant located in France, using Air Liquide's innovative and proprietary Cryocap™ carbon capture technology.



Indonesia

Air Liquide and Pertamina, have signed a Memorandum of Understanding with the objective to explore Carbon Capture Utilization and Storage (CCS/CCUS) to support the decarbonization of Pertamina's activities in Indonesia.



Europe

Air Liquide and EQIOM are joining forces to transform EQIOM's plant into one of the first carbon-neutral cement plants in Europe. The solution aims to implement a First-of-a-Kind oxyfuel-ready kiln, powered with a high level of alternative fuel. Air Liquide will leverage its proprietary technology Cryocap™ Oxy to capture and liquefy the CO₂ emissions coming from EQIOM's french plant. The project expects to capture around 8 million tonnes of CO₂ over the first ten years of operation.



India

Air Liquide will build a new Air Separation Unit (ASU) dedicated to Industrial Merchant activities in Northern India, which is planned to start operating by the end of 2023. This plant has been designed to fully operate on renewable energy by 2030 and offer low-carbon industrial gases to meet the growing demand of customers for sustainable solutions.

TAKING ACTION FOR

OUR ECOSYSTEM

Contributing to the emergence of a low-carbon society.

Hydrogen

Hydrogen is a key solution for energy transition, as recognized by public and private stakeholders alike. The use of hydrogen can decarbonize end uses in applications such as transportation, energy for industry, or heat and electricity in the residential sector. Hydrogen also has a major role to play in the storage of surplus energy in markets with large volumes of renewable energies (wind, solar, etc.).

Air Liquide is a key player in the creation of a global hydrogen economy

In 2017 the Group co-founded the Hydrogen Council, a unique worldwide initiative, whose ambition is to raise awareness of hydrogen an accelerator for energy transition. Today the council has 150 members, from industries such as chemical, aviation, automotive, etc.

3 LEVERS TO ACT



1 Promote hydrogen (H₂) for energy transition

- **8 billion euros** in investments by 2035
- Hydrogen sales to **triple** by 2035



2 Contribute to the development of clean mobility

- Produce low-carbon hydrogen by using water **electrolysis** and **renewable energy**
- Invest in **distribution networks** for Hydrogen mobility
- Develop the **biomethane** chain from production to filling stations



3 Contribute to the circular economy through the development and diversification of biomethane

- Grow the **circular economy** via the development and diversification of **biomethane** (-85% fine particles, -90% CO₂ and -50% noise compared to diesel)
- **22 biomethane production units** worldwide

2022 Examples



South Korea

Air Liquide has partnered with Lotte to co-invest in a new generation of large scale hydrogen filling centers in South Korea. Air Liquide will bring its expertise in design, manufacturing and operation of key hydrogen technologies.



Europe

Air Liquide, CaetanoBus and Toyota Motor Europe have signed a Memorandum of Understanding with the aim of developing integrated hydrogen solutions, including infrastructure development and vehicle fleets to accelerate the expansion of hydrogen mobility.



China

Air liquide is building its first biomethane production unit in China. Its capacity will be 75 GWh per year and will inject the biomethane into the city gas grid. The Group now has 22 biomethane operational production units.



France

Air Liquide will build and operate, on TotalEnergies' Grandpuits site, near Paris, a new hydrogen production unit. By recycling, in part, residual biogases from Grandpuits' biorefinery as a substitute for the natural gas traditionally used, the hydrogen produced by this unit will be partly renewable, and will be delivered with Air Liquide's carbon capture technology, Cryocap™. These innovations will avoid emissions amounting to 150,000 tonnes of CO₂ a year compared to current processes.

PRODUCT-BASED ENVIRONMENTAL METRICS

Life cycle assessment



Life cycle assessment (LCA) is a standardized evaluation method (ISO 14040 and 14044) used to assess the environmental impacts of a product's lifespan, i.e., the extraction of raw materials for production, use, end-of-life processing, recycling, and final disposal of a product. This method does not generally deal with a product's economic or social aspects, but the approach and methodologies of the life cycle described in the international standard can also be applied to these other aspects.

A team of LCA practitioners operating from the different R&D centers of the Group supports the Group in deploying this tool to assess and quantify, on products or projects, positive and negative impacts on climate, water and marine resource, waste, pollutant emissions, biodiversity, and ecosystems.

For instance, Air Liquide's production of hydrogen delivered to refineries leads to direct CO₂ emissions: an in-depth life cycle analysis highlighted the fact that the environmental cost relating to the CO₂ emissions associated with this hydrogen production is largely offset by the benefit of the elimination of acid rain and the decrease in respiratory diseases.

The Group relies on this approach to:

- assess and take account the environmental impacts when designing technologies, products, and offers;
- maintain and enrich its stakeholders interactions by proposing sustainable solutions to customers and suppliers;
- improve the efficiency of its processes, rethink the production chain and make the best long-term strategic choices for its investments.

In 2022, Air Liquide has complemented this approach with an ongoing project aiming at harmonizing methodologies for Carbon Footprint of products. The project covers the various gases produced and sold by the Group and their respective production pathways. The objective is to provide clear information to customers on their carbon footprint related to Air Liquide supplies and accompany them in their CO₂ emissions reduction journey.

CLIMATE AND ENERGY TRANSITION TRAINING



In 2022, Air Liquide University continued to offer the "Climate & Energy Transition On-Boarding" training program. The objective is to share the Group's vision and provide knowledge and behaviors that will ensure resilience and safeguard growth opportunities associated with climate and energy transition. On-boarding topics cover climate, customers and technology. Since the program's launch, more than 1,489 employees have participated in at least one session.

2.1.5. Engaging stakeholders

Since the announcement of its climate objectives at the end of 2018, Air Liquide set up a dedicated in-house organizational structure. The announcement of these objectives and the associated action plan have proven to be factors that drive engagement among Group employees and were further boosted by the announcement of new sustainability objectives on the 23rd March 2021.

Climate Champions



Present within each cluster (group of countries), Climate Champions are responsible for managing the Group's CO₂ emissions reduction objectives. The Climate Champions are the Sustainable Development Department's point of contact in the different clusters (group of countries).

They coordinate the development of a roadmap that defines all the operational measures required to achieve the climate objectives. Their role includes monitoring KPIs, rolling out projects and reporting progress.

The Group Sustainable Development Department is the facilitator of this network that is currently composed of 14 Climate Champions: meetings are held monthly, and in 2022, a two day webinar brought together more than 40 experts and managers to share experiences and good practices regarding decarbonization technologies and solutions, renewable energy sourcing, and other CO₂ emissions reduction topics.

Extra-financial Performance Declaration

Healthcare ESG Champions

Introduced in July 2021, Healthcare ESG (Environmental Social Governance) Champions are present within the Group's various Healthcare entities.

At entities in mature markets, they are responsible for implementing and monitoring projects to improve the quality of life at home of patients with chronic conditions, through specific measures such as the development of initiatives in partnership with patient associations, professionals and healthcare institutions, and the introduction of customized care pathways.

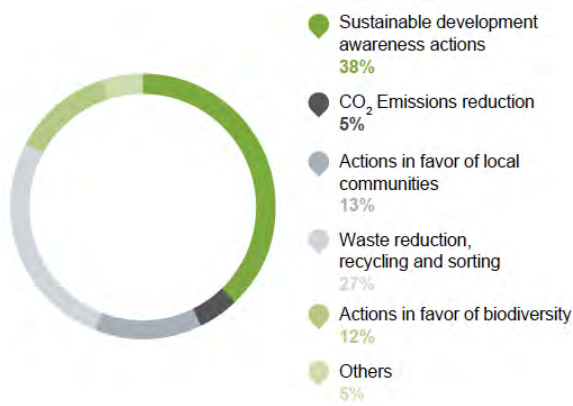
In low- and middle income countries, Healthcare ESG Champions are responsible for projects associated with facilitating access to medical oxygen.

Sustainability Ambassadors

The employees established a network of volunteers to support the Group's sustainable development approach. Previously called "Climate Ambassadors" and renamed "Sustainability Ambassadors" in 2022 to account for the extended role covering all aspects of sustainable development, the members implement local initiatives within their entities, raise awareness among employees and share best practices.

Their actions cover recycling, zero-waste campaigns, and sustainable mobility. The network has more than 600 members, spread across the Group's various geographies, compared with 450 in 2021, demonstrating the growing interest of employees in sustainable development issues.

These actions are also relayed on a dedicated Intranet site where general information on sustainable development and the Group's strategy in this area is accessible: sustainable development objectives, educational videos, articles, current projects, local initiatives, etc.

TYPES OF INITIATIVES IN 2022**INTRODUCING A SYSTEM OF PLASTIC REUSABLE CAPS ON GAS CYLINDERS**

In Austria, a system of reusable plastic caps has been implemented by a "Sustainability Ambassador" on gas cylinders to limit the use of plastic and its inadvertent dispersal by customers into nature. With the support of Ambassador's management, the use of reusable caps was successfully tested for one year, which led to a reduction in environmental impact as well as savings in handling time and procurement. The concept has been extended to other cylinder types in Austria and could be deployed more widely in the Group.

**SUSTAINABILITY DAY**

As Air Liquide makes progress towards its sustainability ambition, it is of the utmost importance to ensure employees have the necessary information and resources to understand the Group's objectives, the progress made towards achieving those objectives, and how they can relate their own actions to the Group's sustainability strategy.

To achieve the ambition to inform and promote the Group's sustainability objectives, the Group hosted an internal "Sustainability Day" on November 15, 2022. This internal event featured a corporate webinar featuring sustainability actions and initiatives taking place around the world. In the days that followed, local events under the framework of the Sustainability Day were organized in the Group's various geographies.

In December 2022, the Group launched an internal sustainability survey, reaching more than 78% of the Group population, to measure the interest of its employees in ESG thematic as well as their personal involvement in these subjects. The data collected provides insight into the Group's strengths, for instance, employees' belief that sustainability should be a top priority for Air Liquide. In this sense, the survey also reflects opportunities for the Group to improve, notably by providing sufficient information and training on sustainability topics. In 2023, Air Liquide will launch actions to address employee feedback and increase sustainability-related engagement.

2.1.6. Air Liquide extra-financial ratings

In 2022, the Group responded to key extra-financial rating agencies and organizations presented below. These are known for their rigorous methodology and the quality of their reports.

Ratings and distinctions obtained by the Group in 2022 for some key ESG assessments are as follows:

 <p>CDP</p> <p>Air Liquide remained a Level A leader in its category, scoring an A- on both Climate and Water performance.</p>	<p>S&P Dow Jones Indices</p> <p>A Division of S&P Global</p> <p>S&P 100</p> <p>Air Liquide is now included in the DJSI Europe Index in recognition of its commitment to social and environmental responsibility.</p>	 <p>FTSE</p> <p>Air Liquide remains a constituent of the FTSE4Good index series in 2022.</p>
 <p>Ecovadis</p> <p>For the sixth consecutive year, Air Liquide has won the Gold Evoadis Sustainability medal, ranking in the top 3%.</p>	<p>MSCI</p> <p>Air Liquide has maintained its A rating, ranking in the top 22% of companies in terms of social responsibility.</p>	 <p>ISS</p> <p>Air Liquide ranks in the top 10% of companies in the running, earning ISS "Prime" status.</p>
 <p>Chemscore</p> <p>Air Liquide ranks #4 out of 54 of the world's leading companies in the chemical sector for responsibly managing the environmental impact of its product portfolio.</p>	<p>MOODY'S ESG Solutions</p> <p>Moody's ESG Solutions</p> <p>Air Liquide ranked in the top 3% of assessed companies.</p>	 <p>Sustainalytics</p> <p>Recognized as "ESG Industry Top Rated", Air Liquide received a "low risk" rating.</p>

Air Liquide is ranked in the Top 15 of the 250 most responsible companies in France according to the newspaper Le Point, which published, along with the Statista institute, its 2023 ranking of the most responsible companies in terms of environment, social and governance (ESG). The Group's improvement in these areas has been constant over the last three years, rising from 45th position in 2021 to 15th in 2023.

Air Liquide is ranked fourth among the top 49 most influential chemical companies in the World Benchmarking Alliance (WBA) 2022 Nature Benchmark. The WBA Nature Benchmark measures and ranks the world's most influential companies on their efforts to protect the environment and its biodiversity.

2.2. CLIMATE: PHYSICAL IMPACT ON OPERATIONS

2.2.1. Climate: physical impact on operations

This risk is part of the Environment and Society risks (described in Chapter 2 of this Universal Registration Document on page 87).

Air Liquide operates in certain regions of the world exposed to changes (in amplitude or frequency) in exceptional meteorological phenomena due to climate change. These phenomena can slow down or interrupt the Group's operations or make them more expensive. Its suppliers and customers are also confronted with this same issue.

These can be broken down into:

- acute risks triggered by events such as natural disasters, the frequency and severity of which are increasing: storms, hurricanes, flooding, etc. These risks may relate to Air Liquide sites located near the coast for example, or in regions affected by hurricanes (the Gulf Coast, South Asia, etc.);
- chronic risks related to more long-term changes in climate models and rising temperatures: rising sea levels, chronic heat waves in certain regions, changes in rainfall patterns and an increase in their variability, the disappearance of certain resources, etc.

2.2.2. Policy and procedures

Physical risks (water availability, frequency of extreme events, etc.) are appraised during the review of investment requests, in the same way as financial criteria, to ensure that the associated risk management measures are adapted, for example, in the design of equipment.

In addition, Group operations that are regularly exposed to the acute risks described above have risk management systems in place aimed at adopting suitable preventive operational measures and managing these crises by, first and foremost, protecting individuals and the production facilities in close cooperation with customers. These systems are regularly updated and improved.

Chronic risks are taken into account, particularly in the design of production units, in the same way, and to the same extent as their energy efficiency and carbon footprint.

In 2022, these risks are already taken into account, especially in (i) the Water Management Policy, which concerns, among other things, water-related risks for production units for which this risk is proven, and (ii) Business Continuity Plans that ensure the resilience of operations in the event of disruption, including extreme climatic events.

In 2022, Air Liquide launched an initiative to consolidate and further improve the risk management process for climate impacts on operations. A scoping phase was conducted in 2022 with the objective of consolidating and structuring a procedure for the Group in 2023, to be deployed in 2024. With the implementation of this procedure, Air Liquide will:

- identify the perils linked to the physical impacts of climate change, according to one or more scenarios with high CO₂ emissions;
- evaluate the importance of these risks for the Group's activities;
- develop, if necessary, adaptation plans.

These risks, like the other climate risks described in this section, are taken into account in the preparation of the Financial Statements (paragraph "Use of estimates and assumptions" of the accounting principles and Note 31 to the Consolidated Financial Statements (Chapter 4), page 257 and 309 respectively).

2.2.3. Performance

The actions undertaken by the Group are intended to contribute to UN Sustainable Development Goal (SDG) 9 "Industry, innovation and infrastructure," 12 "Responsible consumption and production," and 13 "Take urgent action to combat climate change and its impacts". As a first step, a workshop gathering experts from various technical areas and several geographies was organized to identify material climate change related hazards; in parallel, a first assessment of available climate modeling tools has been conducted.

For this scoping phase, the Group also relied on the work performed in 2021: a group of internal experts who, in partnership with external stakeholders, analyzed risks triggered by climate change based on the work of the Intergovernmental Panel on Climate Change (IPCC). This analysis focused on specific assets to strengthen the understanding of key parameters.

In 2022, under the European Union's Taxonomy Regulation, an assessment of Do Not Significant Harm (DNSH) was conducted for the Group's activities identified as eligible for the climate change mitigation objective. This assessment includes the evaluation of the climate risk related to water and especially, the changes that could occur in terms of water availability during the life of the sites, for the hydrogen production activity. As part of a continuous improvement approach and as the Group's environmental program develops, additional analyses will be carried out on climate-related risks and their materiality for the Group's various activities. In addition, new tools will be deployed to map the relevant risks geographically according to the different climate scenarios.

2.3. WATER MANAGEMENT

2.3.1. Water management risk

The Group depends on water for its activities. Its water consumption is related to the loss of water by evaporation in the process of cooling rotating machines, particularly for the production of air gases, or its use as a raw material for the manufacture of products such as hydrogen.

Air Liquide pays particular attention to water management, especially in areas of water stress. The main water management risk for Air Liquide's activities is the possible lack of availability of water which could result in a slowdown or shutdown of a production unit. Moreover, Air Liquide integrates the risks for other stakeholders in its water management. The management of water in its activities can have two main types of impact on people:

- related to the withdrawal and use of water on the sites where the Group operates;
- related to the quality of water returned to ecosystems after use, as set out in Chapter 2, Section 4.2.1 of the Vigilance Plan (page 124).

2.3.2. Policy and procedures

To manage the risks associated with water withdrawal and use as well as the quality of the water returned to ecosystems, a water management policy has been published in the BlueBook in 2021.

This policy identifies the impact of Air Liquide's activities on water availability and quality. The policy defines the principles of risk management based on a specific assessment of the situation at each site. Finally, it describes the actions to be implemented to ensure appropriate water management.

WATER MANAGEMENT OBJECTIVES

In 2022, Air Liquide initiated the rollout of the water management policy focusing on the following Group objectives that have been defined in 2021:

- implementing a documented water management plan by 2025 aimed at reducing water withdrawal and use risks for water-intensive operations in areas of high water stress;
- defining and implementing a Group-wide standard for all operations that goes beyond existing local processes and procedures and guarantees that the quality of discharged water will meet or exceed applicable local criteria.

The action plans to achieve these objectives are being rolled out. In 2022 a working group that included several water experts developed the foundational work required for the roll-out of the Group water policy, consisting in the assessment of sites by their levels of water use and water stress location, as well as the creation of guidelines, standards, and tools to support the field deployment that will start in 2023. In particular this foundation work included the preparation of:

- guidelines and tools for implementing a water management plan for water-intensive operations in areas of high water stress;
- a new technical standard regarding the sustainable monitoring and control of industrial wastewater that is expected to be issued to all operations in 2023.

In 2022, the Group continued improving the water data collection and reporting accuracy. This included the update of the technical standard used for the environmental data reporting, as well as the organization of training webinars with the field teams in charge of environmental data reporting. Air Liquide has a network of water experts across all regions. Their role is to act as dedicated contact points for all questions relating to water and its use and to verify data (withdrawal, restitution, quality).

2.3.3. Performance

The actions undertaken by the Group are intended to contribute to the UN Sustainable Development Goals (SDGs) 6 "Clean water and sanitation", 12 "Responsible consumption and production" and 14 "Life below water."

For several years, Air Liquide has been implementing initiatives to improve data collection and better guide water management on its production sites to reduce water consumption, particularly in water-stressed areas.

In 2022, Air Liquide consumed 91 million m³ of water, a 11% increase compared with 2021, which is mainly related to acquisitions, and in particular to the acquisition of the Sasol production units.

Air Liquide withdrew 973 million m³ of water from various sources. 87% came from customers, 6% came from freshwater sources such as rivers and lakes, 2% from municipal supply and the remaining 5% from various other sources.

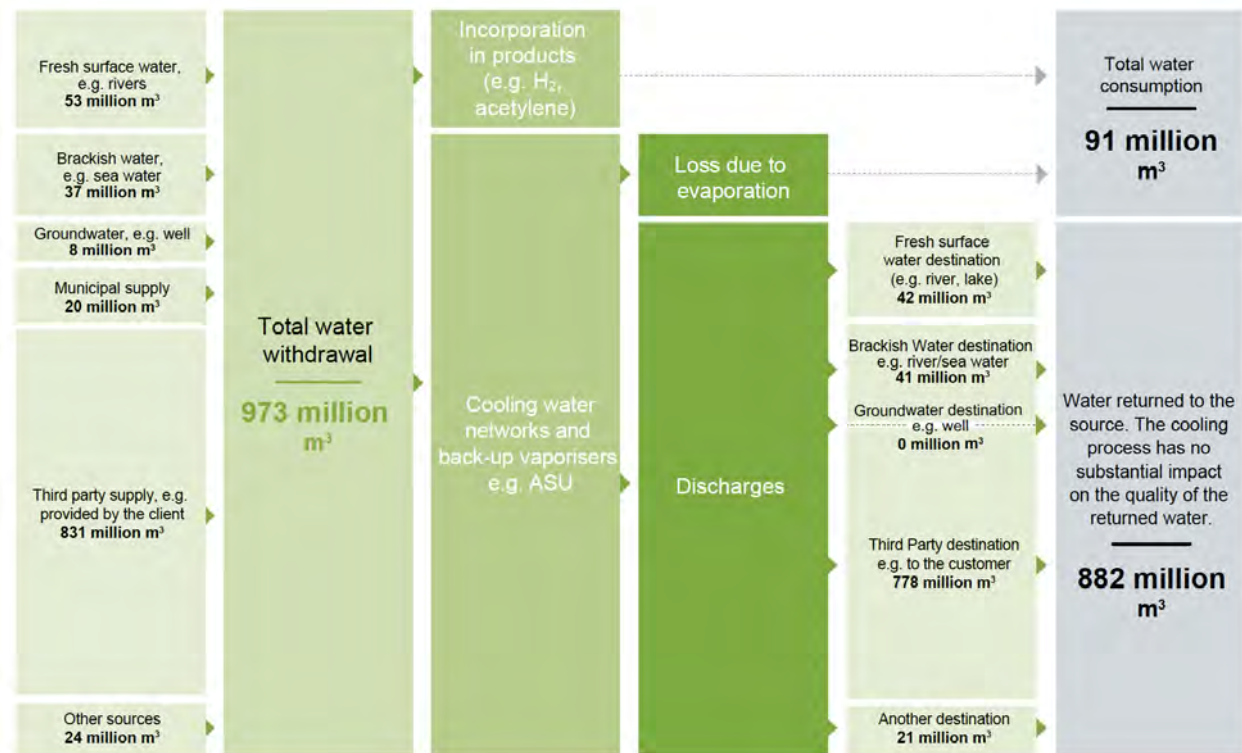
In 2022, more than 40% the water discharged from the Air Liquide Facilities has been reused by third parties (typically customers) for their own usage, after treatment, if necessary. This usage allowed the third party to not withdraw the corresponding amount of water from the natural environment

In terms of water usage, several types of cooling systems are utilized at Air Separation Units (ASU):

- 54% of these units have semi-open water circuits, where some of the water evaporates during cooling;
- 39% of these units have open circuits. The water passes through the plant to cool it, and all the water taken is returned. Both types of units require continuous water top-ups for cooling;
- finally, the other units have closed systems, which do not extract water from their surrounding environment. These consume no water after the initial filling.

Extra-financial Performance Declaration

WATER USE IN THE GROUP PROCESSES



	2018	2019	2020	2021	2022
Annual water withdrawal (estimate in millions of m ³)	394	270	257	950 ^(a)	973 [*]
Annual water consumption (estimate in millions of m ³) ^(b)	86	94	90	82	91 [*]

(a) In 2021, a new reporting tool was implemented and new collection criteria introduced; the increase in reported water quantities for both withdrawals and discharges compared with previous years results from the inclusion of more Open Cooling Circuits, enabled by more granular reporting.

(b) Net water consumption, calculated as the difference between the water withdrawn and the water returned to the source.

* Indicator verified by the independent verifier.

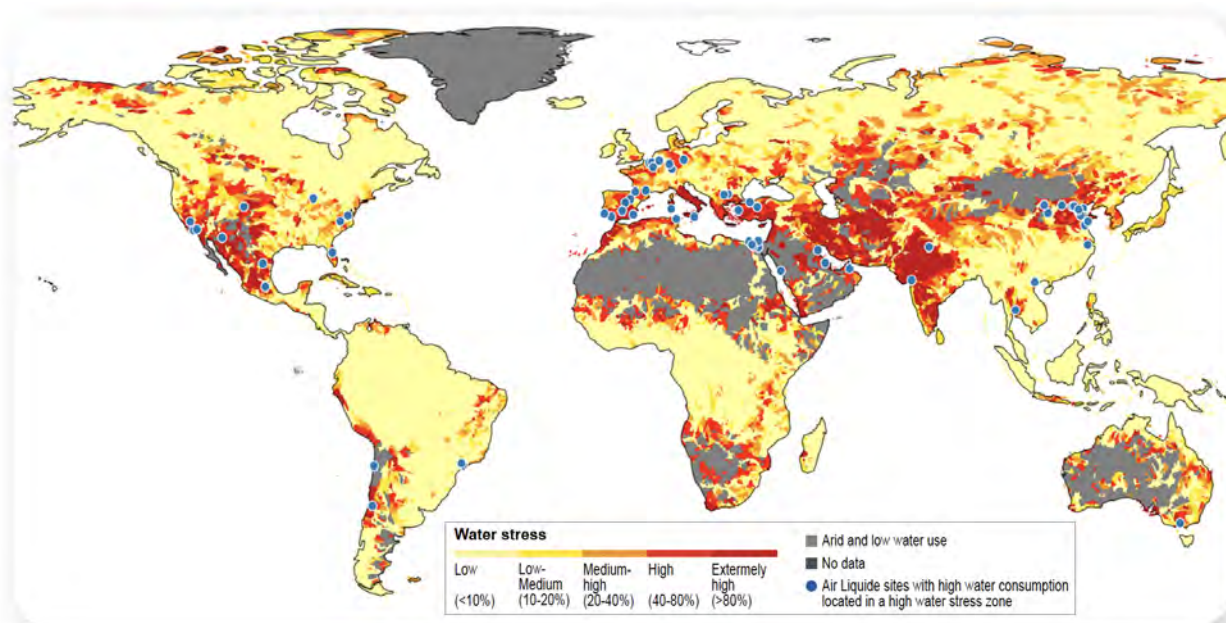
As water is a limited resource and not equally available across all regions, Air Liquide has assessed the risks associated with water consumption at its sites by referring to the "Aqueduct 3.0 Water Risk Atlas", the latest map of the World Resource Institute (WRI) published in August 2019. This assessment takes into account the specific data for each site according to its location in terms of a watershed, groundwater and an administrative boundary.

To carry out this assessment, the Group used the "business as usual" scenario (SSP2 RCP8.5 of the IPCC). Each site is thus identified as belonging to an area of water stress⁽⁶⁾ or not (area

defined according to the intensity of water conflict). This mapping also includes new units.

An analysis that has been conducted in 2022 focused on water intensive operations (i.e. facilities that have a water withdrawal greater than 50,000 m³ per year) shows that there are 78 sites located in high and extremely high water stress locations. By 2025, 100% of these sites have the objective of implementing a documented management plan aimed at reducing water withdrawal and use risks.

⁽⁶⁾ Baseline water stress measures the ratio of total water withdrawals to available renewable surface and groundwater supplies. Water withdrawals include domestic, industrial, irrigation, and livestock consumptive and non-consumptive uses. Available renewable water supplies include the impact of upstream consumptive water users and large dams on downstream water availability. Higher values indicate more competition among users.



Water treatment

Air Liquide has been a reference in water treatment for 35 years, providing its customers with efficient and easy-to-implement solutions to face environmental challenges. The Group continues to support its customers to meet more stringent regulations, and to fight water stress and scarcity with cost-effective solutions.

Air Liquide's "Essential Small Molecules" (mainly O₂, O₃ and CO₂) play a fundamental role in drinking water and wastewater treatment processes. These gases are key to balance mineral levels in desalination of water plants, or to eliminate pollutants from surface drinking water. For industrial players seeking technologies to treat and recycle water, these molecules help boost the removal of organic pollution from wastewater and to avoid corrosion or clogging in cooling systems.

The Group continues to innovate in water treatment to help respond to the growing needs of global markets.

For example, in 2022, Air Liquide has invested in and partnered with InOpsys, a Belgian scale-up that developed innovative technology to treat wastewater streams without discharging hazardous materials into the environment. The two companies work together in an open innovation partnership and have designed a solution for a multinational pharmaceutical company's production facility in Belgium.

2.4. BIODIVERSITY

Biodiversity refers to living species of all kinds, including terrestrial, marine and other aquatic ecosystems, and also the ecosystems to which they belong. It includes diversity within and between species, the diversity of ecosystems, and the interactions between living organisms.

2.4.1. Risk associated with biodiversity

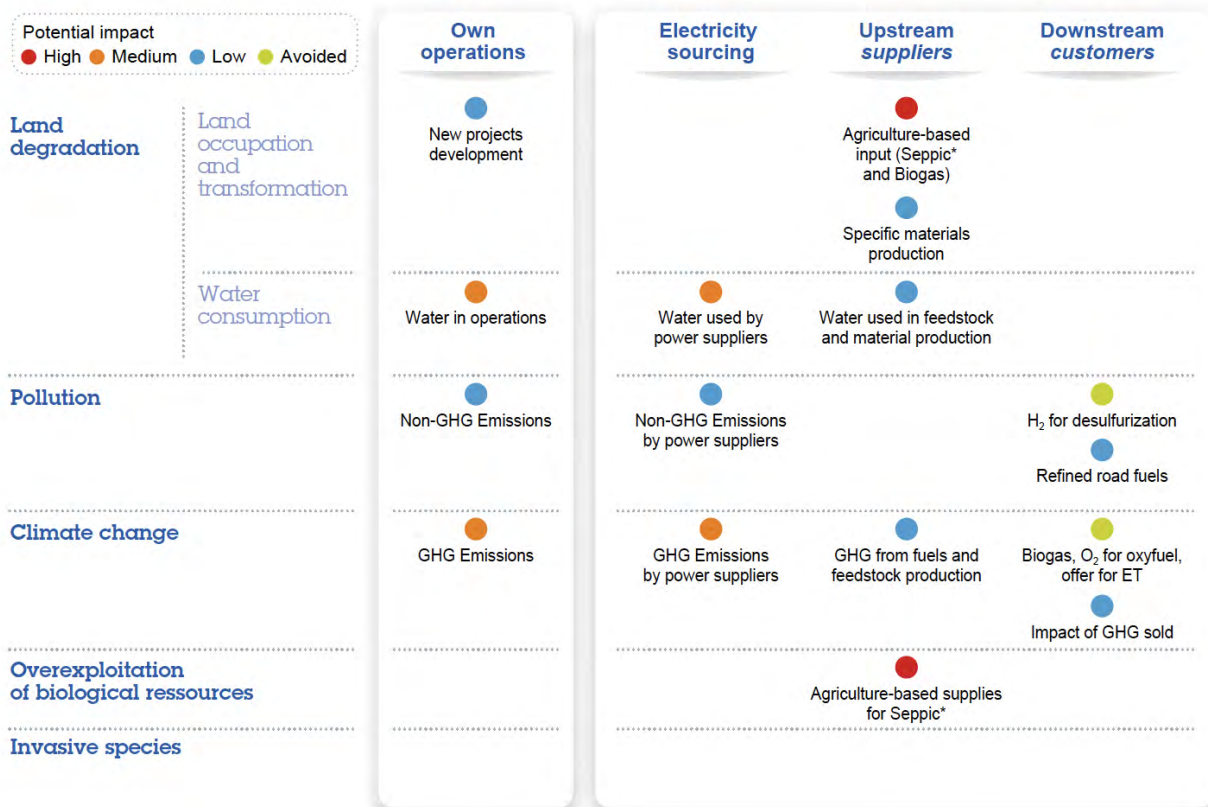
Air Liquide is mindful of its impact on biodiversity, which encompasses both the diversity of living things and the links between species themselves. At a time when the balance of natural environments is threatened, it is important to preserve biodiversity – not only because of the many services it provides to human society, but also for its own intrinsic value.

There are two ways in which companies can interact with biodiversity: in terms of impact and in terms of dependency. In addition, the IPBES⁽⁹⁾ identified five pressures that companies can have on biodiversity, which are land degradation, pollution, climate change, overexploitation of biological resources and invasive species. The approach to the issue of biodiversity must therefore cover the company's entire value chain, from resource management to product life cycle analysis and must cover the five pressures.

In 2022, Air Liquide completed an in-depth review of its value chain's impact on biodiversity, which was launched in 2021. Through an assessment of the direct and indirect impact along the value chain – not only the Group's operation but also upstream and downstream – this approach allowed to identify positive and negative impacts and dependencies.

⁽⁹⁾ Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services.

Extra-financial Performance Declaration



* Seppic is a subsidiary of the Group, developing specialty ingredients

- The Group's operational impacts on biodiversity are fairly limited:
 - the direct impacts of the Group's production units on land occupation and degradation are limited, as these units are generally at sites located in industrial zones, and usually occupy a minor area of the industrial site. For this reason, the Group's impact in terms of land occupation and degradation is limited and, where necessary, is the subject of particular attention,
 - the other impacts are primarily indirect and linked to CO₂ emissions, water consumption and discharges, and certain atmospheric discharges which are already addressed through the Group Climate Policy and Water Policy.
- The main impacts associated with biodiversity are indirect and outside of the Group operations:
 - the Group's operations are rarely directly dependent on ecosystem services; this dependence is mainly related to two specific activities, biomethane and Seppic's activities, through their reliance on agricultural supplies and, for Seppic, reliance on living species,
 - the electricity sourcing mix of the Group which has an indirect impact on water consumption and climate change due to certain energy sources used, such as nuclear, natural gas or coal, which have direct impacts on water consumption and climate change,

- some other impacts identified as minor linked to specific sourced materials, fuels and feedstocks production have been identified,
- furthermore, the Group allows to avoid certain impacts on biodiversity through some of its products such as hydrogen used for fuel desulfurization, thus reducing emissions of sulfur compounds, as well as through its solutions to reduce energy consumption and greenhouse gases emissions by its customers.

2.4.2. Policy and procedures

The Group currently addresses the issue of biodiversity through different ways adapted to the issue at stake:

- Seppic (a Group subsidiary developing specialty ingredients) and biomethane's activities have their own dedicated policies to address their business-specific issues. Seppic commits to reduce the pressure put on biodiversity by its supplies;
- a procedure is being developed to assess the environmental impact of new projects;
- main indirect impacts of the Group are addressed through the climate change and water policies, and industrial standards regarding waste and pollutant emissions.

Air Liquide intends to continuously raise its environmental ambition and is reinforcing its action toward biodiversity preservation in 2022.

BIODIVERSITY OBJECTIVES

- in 2023, Air Liquide commits to submit a set of engagements towards biodiversity conservation to Act4nature International.
- Air Liquide commits to develop and implement an aggregated biodiversity KPI by 2025, allowing the Group to monitor and communicate on its biodiversity performance. This will be defined in 2023 and be deployed thereafter.
- Air Liquide commits to reinforce its biodiversity assessment criteria into the investment process for all new projects by 2024.

Biomethane business

In addition to energy production, methanization contributes to waste treatment and the production of organic fertilizer, which replaces fertilizers of fossil origin. This multifunctionality leads to numerous environmental externalities on the climate, air, soil, and water quality with impacts on biodiversity on a local or global scale in the short and long term.

Although most of the impacts of a biomethane project are generated outside Air Liquide's perimeter, the Group is working on a dedicated sustainability charter for its Biogas activities that integrates the entire value chain. In 2022, Air Liquide has joined forces with key players in the sector and is mobilizing internal and external expertise to set up a harmonized and objective framework to better take into account and control externalities in the development and operations of biomethane production projects.

Seppic

Special attention is paid to the value chain of Seppic, an Air Liquide subsidiary which has been manufacturing and marketing specialty ingredients for more than 75 years. As Seppic's biodiversity challenges mainly relate to procurement, Seppic ensures that supplies comply with the Group's responsible procurement policy. More specifically, Seppic adheres to biodiversity regulations for the countries in which it accesses genetic resources and their derivatives; to the principles of the Convention on Biological Diversity and the Nagoya Protocol for access to genetic resources and the sharing of benefits arising from their utilization. Seppic constantly monitors developments in associated regulatory tools and the status of the plant and marine species it uses with regard to CITES (Convention on International Trade in Endangered Species) and UICN (International Union for the Conservation of Nature) lists of threatened and endangered species. An internal validation process is established with a

steering committee to ensure that the use of raw materials complies with the Nagoya Protocol and applicable national laws. In addition, as palm derivatives represent almost half of its natural origin inputs by volume, Seppic is taking actions to actively promote the sustainable transformation of the palm oil supply chain. In order to do so, Seppic is building its approach by relying on the RSPO (Roundtable for Sustainable Palm Oil) mass-balance certification and by participating in the ASD initiative (Action for Sustainable Derivatives). Seppic's goal is to play a proactive role in tackling deforestation and to ensure human rights are respected in the palm industry. Seppic ensures its direct suppliers take a proactive stance by accompanying them every year in investigating the supply chain up to the mills as well as in investigating how grievances are managed.

2.4.3. Performance

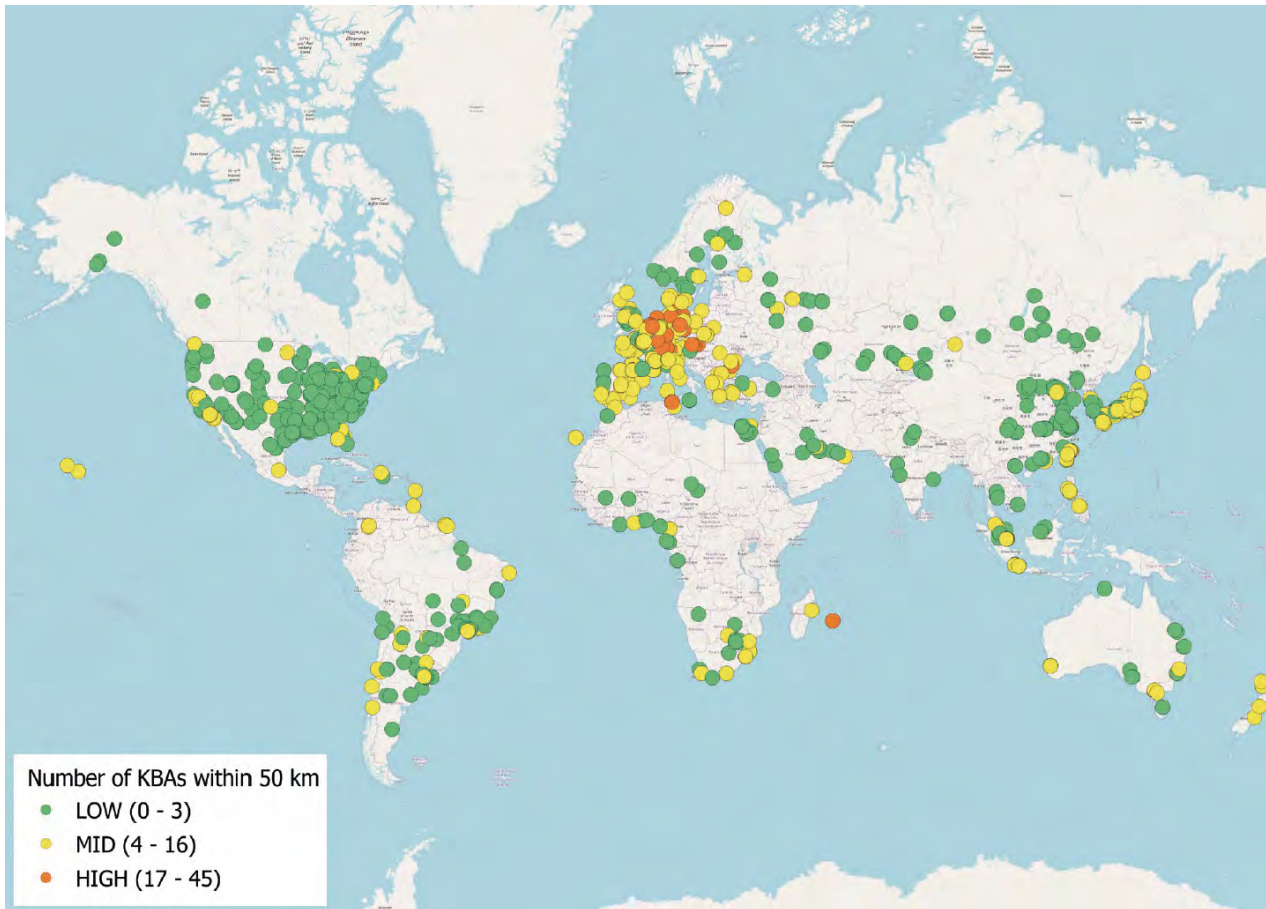
The actions undertaken by the Group are intended to contribute to the UN Sustainable Development Goals (SDGs) 14 "Life below water" and 15 "Life on land".

Actions undertaken by the Group

After analyzing the materiality matrix conducted in 2020 that highlighted the biodiversity topic, Air Liquide launched in 2021 and finalized in 2022 a project with the company I Care & Consult (ICC) to assess all its dependencies and the pressure it puts on biodiversity allowing to structure the Group's impacts on biodiversity around the five pressures identified by the IPBES as illustrated in paragraph 2.4.1. This in-depth analysis served as a basis to pinpoint the priority issues for the roll out of the Group's biodiversity strategy in 2022.

As part of this process, Air Liquide mapped in 2021 all of its sites to identify those located near protected areas according to the IUCN's Key Biodiversity Areas (KBA) database. The KBAs correspond to areas identified based on specific criteria such as areas that make a significant contribution to biodiversity within various ecosystems. Proximity to these areas reflect the heightened sensitivity of biodiversity to human activity. This review, found that 13% of Air Liquide sites in 2021 were located within a 50-km radius of at least nine KBAs (mainly in Europe due to the large number of KBAs recognized by regulations) and for which heightened attention must be paid in regard to any pressure that may be put on biodiversity. Air Liquide is currently working on determining, for the various type of activities, what is the relevant radius regarding its sites' proximity to KBAs. As KBAs may change over time, Air Liquide will renew this mapping on a regular basis.

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In addition to global measures taken in response to biodiversity issues, local measures are also taken at various levels within the Group.

Actions undertaken by the Biomethane business

Air Liquide's biomethane business contributes to a better management of certain waste by substituting alternative practices. For example, the methanization of livestock effluents or communities' organic waste helps prevent certain ammonia or methane emissions generated by their storage and decomposition, at the edge of fields or in landfill. This business, by preventing these emissions, thus contributes to the protection of biodiversity as part of a circular economy approach.

Actions undertaken by Seppic

In order to better identify the impacts and dependencies of its raw materials, manufacturing processes and the end-of-life of its products on biodiversity, Seppic continued its collaboration with I Care & Consult (ICC) initiated in 2020. The results show that the majority of Seppic's biodiversity impact is due to the purchase of certain raw materials. Among these raw materials, biobased derivatives stand out as having the larger footprint, mostly due to the impact of land use during the agricultural phase. However, these impacts can be limited by the use of certification, which can reduce the impact on various indicators. This is notably the case for RSPO Mass Balance certified palm derivatives. These results have allowed Seppic to refine its objectives and to set up an action plan to reduce its biodiversity impacts in the future.

With regard to its strategy for dealing with palm derivatives, Seppic is continuing its program to ensure that 100% of its incoming raw materials will be Mass Balance certified by 2025. In 2022, 97% of Seppic's palm oil inputs were already Mass Balance certified (either RSPO or ISCC+⁽¹⁰⁾) and the rest were covered by the "Book & Claim" certificates of small, independent producers, meaning all of Seppic's sourced palm derivatives were certified. Since 2019, Seppic has been producing annual traceability reports for its procurement within the framework of ASD (Action for Sustainable Derivatives) with continuous progress. Seppic's palm strategy has also been assessed according to the Sustainable Palm Index (SPI) methodology, and Seppic has achieved a score of 94/100 in 2022, an improvement on the 91/100 score of the previous year. In addition, Seppic is encouraging and supporting growers not yet committed to RSPO certification by contributing to the governance and funding of a joint project with five other ASD members, the Kaleka⁽¹¹⁾ Initiative which aims to restore the ecosystem and stimulate economic growth in two of the most important palm-producing regions of Central Kalimantan, Indonesia. Seppic's commitment began in 2022 for a period of five years.

Finally, Seppic bases its conscious sourcing of plants and seaweeds on an in-depth knowledge of their use, their environment and their stakeholders, in compliance with relevant laws and internationally-recognized best practices.

⁽¹⁰⁾ ISCC is a globally applicable sustainability certification system and covers all sustainable feedstocks, including agricultural and forestry biomass, circular and bio-based materials and renewables.

⁽¹¹⁾ Indonesian non-profit research institute focusing on the environment and sustainable rural development.

Seppic's sourcing strategy aims at the continuous improvement of its organization and the management of plants and seaweeds supply in order to respect the biodiversity as well as social and environmental issues in connection with wild harvesting and cultivation. Seppic therefore is committed to following ethical sourcing practices and tries to provide the most appropriate answers to upgrade its sustainable business and responsible sourcing model.

Actions undertaken by Group employees

The Sustainability Ambassadors, volunteer employees who want to act in favour of sustainable development within Air Liquide, have also organized local initiatives in favor of biodiversity:

- in 2022, Air Liquide France Industry employees have launched a work to rethink lawn mowing on sites in order to mow lawns less intensely during flowering period in order to preserve insects. This initiative was inspired by Kornwestheim Filling Center in Germany which has been allocating unused industry land to grow wild flowers since 2016;
- in Austria, a Sustainability Ambassador has introduced a system of reusable plastic caps on gas cylinders that reduces plastic waste, handling time and costs. This initiative is currently being analyzed for replication across the Group.



SUSTAINABLE SOURCING

Seppic's Lons and Pontrieux sites, which specialize in the botanical extraction of cosmetic and pharmaceutical active ingredients, joined the Union for Ethical BioTrade (UEBT) to align their sourcing strategy and good practices with an independent standard. As UEBT members, these sites are committed to taking into account the impact of seaweeds and plant sourcing activities on social, environmental and economic issues. By 2025, 100% of Seppic's new dermo-cosmetic and nutraceutical ingredients manufactured at the factories of Lons and Pontrieux will be sourced according to its Ethical Sourcing System⁽¹²⁾.

2.5. EUROPEAN TAXONOMY

2.5.1. Taxonomy regulation

The European Union (EU) Taxonomy regulation (EU Regulation 2020/852 published on June 22, 2020) defined, on a scientific basis, a list of economic activities and the technical criteria that allows said activities to qualify as environmentally sustainable. These technical screening criteria are defined by the European Commission (EC) in two delegated acts published on December 9, 2021 and December 10, 2021.

The list of activities was established by focusing on nine macro-sectors that generated more than 93% of the EU's direct greenhouse gas emissions in 2017 (OECD).

A complementary delegated act, published on July 15, 2022, included specific nuclear and gas energy activities in the list of economic activities covered by the Taxonomy. The main impact for the Group is the eligibility of the activity related to cogeneration of steam and electricity.

The European Commission (EC) also published on October 6, 2022 Frequently Asked Questions (FAQs) aiming at clarifying the Delegated Acts, regarding the interpretation of certain legal provisions of the Disclosures Delegated Act under Article 8 of the EU Taxonomy regulation on the reporting of eligible economic activities and assets. This notice clarified the definition of Operating Expenses (OpEx); Air Liquide discloses in a table below the restatement of the 2021 OpEx as, for the 2021 reporting, the Group has defined its methodology on the basis of information available in January 2022.

The first three delegated acts relate to economic activities that may make a significant contribution to climate change mitigation and climate change adaptation objectives (four others are planned to be published in the future).

The Taxonomy regulation has created a classification system which should serve as a common language for investors to identify the projects and conditions that will enable the chosen economic activities to have a significant positive impact on the climate and environment. As such, the regulation is a tool aimed at helping investors and listed companies, financial institutions and EU project sponsors to direct their investments toward environmentally sustainable activities as part of the transition aimed at making the EU climate neutral by 2050.

The activities listed in the Taxonomy regulation are referred to as "eligible". While these activities are the major contributors to direct GHG emissions, they also have the potential to be improved from a carbon footprint perspective. **As such, the eligibility percentage of an organization, by itself, is not a measure of its sustainability impact.**

The statistical classification of economic activities in the European Community (NACE) is the standard used to classify economic activities which are divided into three categories in the Taxonomy regulation:

- activities for which technical criteria refer to performance levels which comply with climate neutrality and limiting temperature increase to 1.5 degrees Celsius at a global level (i.e. in line with a net zero carbon economy by 2050);
- transitional activities for which there are no low-carbon alternatives for the moment and for which greenhouse gas emission levels are in line with the best performance in the sector or industry;
- enabling activities which improve carbon efficiency or facilitate a significant decrease in emissions.

⁽¹²⁾ Set of policies and procedures that promotes Ethical BioTrade practices. The in-house manufacturing and corresponding supply chains that are outsourced to Lons and Pontrieux for a third party are excluded from the scope of the Ethical Sourcing System. Biotechnological ingredients manufactured at Pontrieux are excluded from the scope of the UEBT membership.

KEY ELEMENTS

In 2022, Air Liquide identified 17 activities eligible for the climate change mitigation objective out of 94 activities listed in the delegated acts, of which manufacture of hydrogen was the most significant. They are presented in the tables below (pages 378 to 384).

As of December 31, 2022, turnover eligible to the Taxonomy (for the two objectives described above) totaled 5.2 billion euros (equivalent to 17.5% of total consolidated revenue).

An eligible activity that complies with the three following conditions and for which the requirements of the Taxonomy regulation can be documented is referred to as “aligned”:

- it contributes substantially to one or more of the environmental objectives;
- it does not significantly harm any of the environmental objectives;
- it is carried out in compliance with minimum safeguards.

As at December 31, 2022, turnover aligned with Taxonomy (for the two objectives described above) totaled 0.3 billion euros (equivalent to 1.2% of total consolidated revenue and to 6.6% of eligible revenue). Eligible non-aligned activities are either activities that do not meet one of the above mentioned requirements, or for which such compliance could not be reasonably documented, mainly due to lack of sufficient guidance for alignment or difficulty to access required data at the requested granularity.

Turnover from activities not covered by Taxonomy, referred to as “non-eligible”, totaled 24.7 billion euros (82.5% of total consolidated revenue), and notably include the production of oxygen, medical gases and home healthcare. Indeed, the activities associated with production of air gases, including the activities mentioned above, generate almost no direct greenhouse gas emissions.

These ratios related to the turnover capture the situation of the existing production units. However, by 2035, Air Liquide aims at investing around 8 billion euros to serve the low-carbon and renewable hydrogen markets. These investments start to be made in the frame of ADVANCE strategic plan, which also foresees 8 billion euros of investment for the energy transition, as illustrated by the share of aligned capital expenditure among eligible capital expenditure, that stood at 30.0% as at December 31, 2022.

2.5.2. Methodology

The Group defined its methodology on the basis of information available as of November 30, 2022. In particular, the methodology does not consider any recommendations published by the European Commission or other competent authorities after December 1, 2022. Notably, it does not take into account the Draft Commission notices on interpretation and implementation of certain legal provisions of the EU Taxonomy Climate Delegated Act and on interpretation and implementation of certain legal provisions of the Disclosures Delegated Act under Article 8 of EU Taxonomy Regulation, issued on December 19, 2022; these texts are being analyzed.

Key performance indicators (KPIs)

In accordance with the consolidated financial statements, figures relating to the three KPIs are provided in millions of euros, and the conversion of foreign currencies is carried out according to the same methodology and using the same exchange rates as those used to prepare financial information.

- Turnover: the first Taxonomy KPI is calculated by eligible activity and by facility, based on external revenue (i.e. excluding intra-group sales) as determined and published in the financial statements under “Revenue” line in the income statement. If revenue by facility is not available, the entities apply a ratio based on volumes delivered by each facility. Revenue corresponds to revenue from contracts with customers as defined under IFRS 15 standard.
- Capital expenditure (CapEx): the second Taxonomy KPI includes acquisitions of property, plant and equipment and intangible assets completed during the period under consideration, including those stemming from business combinations that result in the acquisition of a company or business consolidated in the Group’s financial statements. These additions are considered before impairment, depreciation and amortization, and any revaluation. It is calculated based on the internal management of investments. Investment decisions exceeding 3 million euros are monitored individually and their Taxonomy characteristics are presented to the Resources and Investment Committee. Capital expenditure related to these investment decisions is monitored

on a per-project basis. Capital expenditure of less than 3 million euros is monitored by production site or, when several production units are involved, calculated using a ratio based on the turnover KPI.

The lines in the Financial Statements that correspond to the CapEx KPI are included in Note 11 – “Other intangible assets,” on the line “Total gross intangible assets” of the columns “Acquisitions” and “Acquisitions related to business combinations”; and in Note 12 – “Property, plant and equipment” of the “Total property, plant and equipment” line under the “Acquisitions” and “Acquisitions related to business combinations” columns.

- Operating expenses (OpEx): the third Taxonomy KPI is calculated based on direct non-capitalized expenses for research and development, building renovation, short term leases, maintenance and repairs, as well as all other direct expenses relating to the day-to-day servicing of property, plant and equipment assets that are necessary to ensure the continuous and efficient running of these assets.

The Frequently Asked Questions (FAQs), published on October 6, 2022, clarified the definition of the OpEx. The main impact for Air Liquide is the removal of the purchase of industrial gases, natural gas/naphtha and electricity, and the restriction of personnel costs to those related to maintenance. Air Liquide discloses in the table on page 382 the restatement of the 2021 OpEx.

In 2022, the OpEx include direct expenses relating to the nature of the following costs, that are necessary for the production of products included in the revenue KPI: Personnel costs related to maintenance, Subcontracted maintenance and installation, Rental and leasing of real estate and transportation, Purchases of materials related to maintenance, general R&D expenses. The OpEx KPI is calculated directly or indirectly, by allocating expenses on the basis of the turnover KPI. Income statement lines relating to the OpEx KPI are “Purchases,” “Personnel expenses” and “Other expenses”.

Eligible and alignment criteria

All hydrogen production sites with a capacity of at least 1,500 Nm³/h were considered in the reporting of the three KPIs.

Individual improvement measures are analyzed on a case-by-case basis in order to consider them CapEx or OpEx eligible KPI.

The Group assessed the alignment criteria based on the following methodology:

- **Substantial Contribution:** the criterion being specific to each activity, the Group adopted an activity-by-activity approach applied to each facility, relying upon internal data collected in the course of its operations;
- **Do Not Significant Harm:** the assessment relied notably on studies of the environmental impact of the potentially aligned facilities meeting the Substantial Contribution criterion;

- **Minimum Safeguards:** the assessment covered four dimensions: (i) human rights, including labor law, (ii) corruption, (iii) taxation and (iv) fair competition. It relied upon:

- A. processes applied by the Group, including but not limited to the Code of Conduct, the whistleblowing system Ethicall, the Group' sustainable procurement policy, the Vigilance Plan, the prevention measures relating to corruption and fair competition, and the tax risk management policy. These processes are further described in Chapters 2 and 5 of the present Universal Registration Document. Regarding human rights and corruption, the assessment encompassed the supply chain.
- B. the absence of serious negative impact or event related to the four dimensions (notably the absence of serious breach or conviction).

Where the assessment could not be sufficiently evidenced, the Group adopted a conservative approach and did not consider the eligible activity as aligned.

2.5.3. Taxonomy's key performance indicators (KPI)

The tables presented hereafter correspond to the activities listed for the objective of climate change mitigation. No activity was identified as eligible to the objective of climate change adaptation.

The following table recaps the eligibility and alignment ratios for each Taxonomy's key performance indicator. The detailed tables are presented hereafter.

Proportion (%)	Turnover	Capital expenditure	Operating expenses
KPI - Eligible activities	17.5 %	9.2 %	9.0 %
KPI - Aligned activities	1.2 %	2.8 %	2.5 %
<i>Ratio of aligned/eligible activities</i>	6.6 %	30.0 %	27.7 %

Air Liquide's eligible activities represent a small portion of the Group's activities, reflecting the fact that **the majority of Air Liquide's revenue is generated from activities with almost no direct greenhouse gas emissions within the Group's scope.**

Thus, 2022 **turnover** eligible for EU Taxonomy represented 5,237.7 million euros, or 17.5% of total revenue. Turnover aligned as per the EU Taxonomy amounted to 346.2 million euros, or 1.2% of total turnover and 6.6% of eligible turnover.

Eligible **CapEx** represented 380.6 million euros, or 9.2% of the total 2022 Group's capital expenditure as defined in paragraph 2.5.2.: this is related to capital expenditure incurred during the 2022 fiscal year on eligible activities but stemming from investment decisions made in 2022 or in previous periods. Aligned Capex represented 114.3 million euros, or 2.8% of total CapEx and 30.0% of eligible CapEx.

By 2035, Air Liquide aims at investing around 8 billion euros to serve the low-carbon and renewable hydrogen markets, covering the primary production, supply chain and logistics, to accompany the markets linked to the energy transition. Air Liquide has also announced its ambition to develop 3 GW of electrolysis for hydrogen production by 2030. In addition, in the ADVANCE strategic plan, 16 billion euros will be invested by the Group over the period 2021-2025, 50% of which will go to the Energy Transition.

Eligible **OpEx** represented 455.0 million euros, i.e. 9.0% of the Group's operating expenses. Aligned OpEx represented 125.8 million euros, or 2.5% of total OpEx and 27.7% of eligible OpEx.

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Turnover

Economic activities	NACE Code(s)	Absolute turnover (in millions of euros)	Proportion of turnover (%)	Substantial contribution criteria	
				Climate change mitigation (yes / no)	Climate change adaptation (yes / no)
A. TAXONOMY – ELIGIBLE ACTIVITIES		5,237.7	17.5%		
A.1. Environmentally sustainable activities (Taxonomy-aligned)		346.2	1.2%		
Activity C: Manufacturing		299.8	1.0%		
3.10 Manufacture of hydrogen	C20.11	148.6	0.5%	yes	no
3.2 Manufacture of equipment for the production	C25, C27, C28	86.3	0.3%	yes	no
3.6 Manufacture of other low-carbon technologies	C22, C25, C26, C27, C28	36.4	0.1%	yes	no
3.3 Manufacture of low-carbon technologies for transport	C29.1, C30.1, C30.2, C30.9, C33.15, C33.17	28.5	0.1%	yes	no
Activity E: Water supply, sewerage, waste management and remediation		43.0	0.2%		
5.7 Anaerobic digestion of bio-waste	E38.21, F42.99	26.0	0.1%	yes	no
5.10 Landfill gas capture and utilization	E38.21	17.0	0.1%	yes	no
Activity H: Transport		3.4	0.0%		
6.15 Infrastructure enabling low-carbon road transport and public transport	F42.11, F42.13, F71.1, F71.20	3.4	0.0%	yes	no
A.2. Taxonomy-Eligible but not environmentally sustainable activities (not Taxonomy-aligned activities)		4,891.5	16.3%		
Activity C: Manufacturing		3,455.0	11.5%		
3.10 Manufacture of hydrogen	C20.11	3,201.1	10.7%		
3.14 Manufacture of organic basic chemicals	C20.14	100.9	0.3%		
3.2 Manufacture of equipment for the production and use of hydrogen	C25, C27, C28	75.7	0.3%		
3.6 Manufacture of other low-carbon technologies	C22, C25, C26, C27, C28	62.6	0.2%		
3.3 Manufacture of low-carbon technologies for transport	C29.1, C30.1, C30.2, C30.9, C33.15, C33.17	14.7	0.0%		
Activity D: Energy		1,374.0	4.6%		
4.30 High-efficiency co-generation of heat/cool and power from fossil gaseous fuels	D35.11, D35.30	1,357.3	4.5%		
4.29 Electricity generation from fossil gaseous fuels	D35.11, F42.22	9.4	0.1%		
4.7 Electricity generation from renewable non fossil gaseous and liquid fuels	D35.11, F42.22	5.5	0.0%		
4.12 Storage of hydrogen	NA	1.8	0.0%		
Activity E: Water supply, sewerage, waste management and remediation		57.6	0.2%		
5.7 Anaerobic digestion of bio-waste	E38.21, F42.99	31.4	0.1%		
5.10 Landfill gas capture and utilization	E38.21	26.2	0.1%		
Activity H: Transport		4.9	0.0%		
6.15 Infrastructure enabling low-carbon road transport and public transport	F42.11, F42.13, F71.1, F71.20	4.9	0.0%		
B. TAXONOMY – NON-ELIGIBLE ACTIVITIES		24,696.3	82.5%		
TOTAL (A + B)		29,934.0	100%		

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Capital expenditure

Economic activities	NACE Code(s)	Absolute CapEx (in millions of euros)	Proportion of CapEx (%)	Substantial contribution criteria	
				Climate change mitigation (yes / no)	Climate change adaptation (yes / no)
A. TAXONOMY – ELIGIBLE ACTIVITIES		380.6	9.2%		
A.1. Environmentally sustainable activities (Taxonomy-aligned)		114.3	2.8%		
Activity C: Manufacturing		97.0	2.4%		
3.10 Manufacture of hydrogen	C20.11	93.5	2.3%	yes	no
3.2 Manufacture of equipment for the production and use of hydrogen	C25, C27, C28	3.4	0.1%	yes	no
3.3 Manufacture of low-carbon technologies for transport	C29.1, C30.1, C30.2, C30.9, C33.15, C33.17	0.1	0.0%	yes	no
Activity E: Water supply, sewerage, waste management and remediation		7.5	0.2%		
5.10 Landfill gas capture and utilization	E38.21	5.9	0.2%	yes	no
5.7 Anaerobic digestion of bio-waste	E38.21, F42.99	1.6	0.0%	yes	no
Activity H: Transport		8.1	0.2%		
6.15 Infrastructure enabling low-carbon road transport and public transport	F42.11, F42.13, F71.1, F71.20	8.1	0.2%	yes	no
Activity J: Information and communication		0.2	0.0%		
8.2 Data-driven solutions for GHG emissions reductions	J61, J62, J63.11	0.2	0.0%	yes	no
Activity M: Professional, scientific and technical activities		1.5	0.0%		
9.1 Market research, development and innovation	M71.1.2, M72.1	1.5	0.0%	yes	no
A.2. Taxonomy-Eligible but not environmentally sustainable activities (not Taxonomy-aligned activities)		266.3	6.4%		
Activity C: Manufacturing		201.3	4.9%		
3.10 Manufacture of hydrogen	C20.11	198.5	4.8%		
3.14 Manufacture of organic basic chemicals	C20.14	2.5	0.1%		
3.2 Manufacture of equipment for the production and use of hydrogen	C25, C27, C28	0.3	0.0%		
Activity D: Energy		12.1	0.3%		
4.30 High-efficiency co-generation of heat/cool and power from fossil gaseous fuels	D35.11, D35.30	9.4	0.2%		
4.29 Electricity generation from fossil gaseous fuels	D35.11, F42.22	2.5	0.1%		
4.1 Electricity generation using solar photovoltaic technology	D35.11, F42.22	0.2	0.0%		
Activity E: Water supply, sewerage, waste management and remediation		41.6	1.0%		
5.7 Anaerobic digestion of bio-waste	E38.21, F42.99	27.4	0.7%		
5.10 Landfill gas capture and utilization	E38.21	14.2	0.3%		
Activity F: Construction and real estate activities		2.8	0.1%		
7.1 Construction of new buildings	F41.1, F41.2, F43	2.6	0.1%		
7.2 Renovation of existing buildings	F41, F43	0.2	0.0%		
Activity H: Transport		1.4	0.0%		
6.15 Infrastructure enabling low-carbon road transport and public transport	F42.11, F42.13, F71.1, F71.20	1.4	0.0%		
Activity J: Information and communication		1.0	0.0%		
8.2 Data-driven solutions for GHG emissions reductions	J61, J62, J63.11	1.0	0.0%		
Activity M: Professional, scientific and technical activities		6.1	0.1%		
9.1 Market research, development and innovation	M71.1.2, M72.1	6.1	0.1%		
B. TAXONOMY – NON-ELIGIBLE ACTIVITIES		3,736.4	90.8%		
TOTAL (A + B)		4,117.0	100.0%		

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Operating expenses

Restatement 2021:

Economic activities	NACE Code(s)	Absolute OpEx (in millions of euros)	Proportion of OpEx (en %)
A. TAXONOMY – ELIGIBLE ACTIVITIES		280.6	6.8 %
Activity C: Manufacturing		240.6	5.9 %
3.10 Manufacture of hydrogen	C20.11	145.7	3.6 %
Other activities		94.9	2.3 %
Activity D: Energy		2.0	— %
Activity E: Water supply, sewerage, waste management and remediation		15.3	0.4 %
Activity H: Transport		0.8	— %
Activity J: Information and communication		0.4	— %
Activity M: Professional, scientific and technical activities		21.5	0.5 %
B. TAXONOMY – NON-ELIGIBLE ACTIVITIES		3,797.8	93.2 %
TOTAL (A + B)		4,078.4	100.0 %

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2022:

Economic activities	NACE Code(s)	Absolute OpEx (in millions of euros)	Proportion of OpEx (%)	Substantial contribution criteria	
				Climate change mitigation (yes / no)	Climate change adaptation (yes / no)
A. TAXONOMY - ELIGIBLE ACTIVITIES		455.0	9.0%		
A.1. Environmentally sustainable activities (Taxonomy-aligned)		125.8	2.5%		
Activity C: Manufacturing		114.9	2.3%		
3.2 Manufacture of equipment for the production and use of hydrogen	C25, C27, C28	84.0	1.7%	yes	no
3.6 Manufacture of other low-carbon technologies	C22, C25, C26, C27, C28	19.8	0.4%	yes	no
3.10 Manufacture of hydrogen	C20.11	11.1	0.2%	yes	no
Activity E: Water supply, sewerage, waste management and remediation		10.7	0.2%		
5.10 Landfill gas capture and utilization	E38.21	9.1	0.2%	yes	no
5.7 Anaerobic digestion of bio-waste	E38.21, F42.99	1.6	0.0%	yes	no
Activity H: Transport		0.2	0.0%		
6.15 Infrastructure enabling low-carbon road transport and public transport	F42.11, F42.13, F71.1, F71.20	0.2	0.0%	yes	no
A.2. Taxonomy-Eligible but not environmentally sustainable activities (not Taxonomy-aligned activities)		329.2	6.5%		
Activity C: Manufacturing		239.5	4.8%		
3.10 Manufacture of hydrogen	C20.11	98.8	2.0%		
3.2 Manufacture of equipment for the production and use of hydrogen	C25, C27, C28	85.4	1.7%		
3.6 Manufacture of other low carbon technologies	C22, C25, C26, C27, C28	34.7	0.7%		
3.14 Manufacture of organic basic chemicals	C20.14	20.5	0.4%		
3.3 Manufacture of low carbon technologies for transport	C29.1, C30.1, C30.2, C30.9, C33.15, C33.17	0.1	0.0%		
Activity D: Energy		36.4	0.7%		
4.30 High-efficiency co-generation of heat/cool and power from fossil gaseous fuels	D35.11, D35.30	35.7	0.7%		
4.29 Electricity generation from fossil gaseous fuels	D35.11, F42.22	0.4	0.0%		
4.7 Electricity generation from renewal non fossil	D35.11, F42.22	0.2	0.0%		
4.12 Storage of hydrogen	N/A	0.1	0.0%		
Activity E: Water supply, sewerage, waste management and remediation		15.9	0.3%		
5.10 Landfill gas capture and utilization	E38.21	14.0	0.3%		
5.7 Anaerobic digestion of bio-waste	E38.21, F42.99	1.9	0.0%		
Activity H: Transport		0.4	0.0%		
6.15 Infrastructure enabling low-carbon road transport and public transport	F42.11, F42.13, F71.1, F71.20	0.4	0.0%		
Activity J: Information and communication		2.2	0.0%		
8.2 Data-driven solutions for GHG emissions reductions	J61, J62, J63.11	2.2	0.0%		
Activity M: Professional, scientific and technical activities		34.8	0.7%		
9.1 Market research, development and innovation	M71.1.2, M72.1	34.8	0.7%		
B. TAXONOMY - NON-ELIGIBLE ACTIVITIES		4,533.7	91.0%		
TOTAL (A + B)		4,988.7	100%		

DNSH criteria							Taxonomy-aligned proportion of OpEx year N	Category (enabling or transitional)
Climate change mitigation (yes / no)	Climate change adaptation (yes / no)	Water and marine resources (yes / no)	Circular economy (yes / no)	Pollution (yes / no)	Biodiversity and ecosystems (yes / no)	Minimum safeguards (yes / no)		
							2.5%	
							2.3%	
	yes	yes	yes	yes	yes	yes	1.7%	E
	yes	yes	yes	yes	yes	yes	0.4%	E
	yes	yes	N/A	yes	yes	yes	0.2%	
							0.2%	
	yes	N/A	N/A	yes	yes	yes	0.2%	
	yes	yes	N/A	yes	yes	yes	0.0%	
							0.0%	
	yes	yes	yes	yes	yes	yes	0.0%	E

Extra-financial Performance Declaration

The main Air Liquide's eligible activities relates to hydrogen.

Revenue from **hydrogen-related activities** represented 11.8% of total turnover, with 11.2% from the manufacture of hydrogen and the remainder from the manufacture of equipment for the production and use of hydrogen by the Engineering & Construction business line, the construction and operation of facilities for the storage of hydrogen, and the manufacture of hydrogen charging stations. Aligned turnover relating to hydrogen is mostly due to manufacturing units with a low carbon footprint and to sales of equipment supporting the development of new usages of hydrogen for the energy transition, in particular in the mobility sector. Aligned hydrogen turnover will increase as demand for low carbon footprint hydrogen increases, supported by the deployment of policy and regulatory frameworks promoting new usages of hydrogen as a key lever to reduce greenhouse gas emissions from sectors such as industry and transport.

Second to hydrogen activities, **cogeneration activity** represented 4.5% of total turnover. This activity supplies high grade heat to the chemical and petrochemical industry in an efficient manner and there is as of today no alternative at large scale; this activity is not deemed aligned with respect to the Taxonomy criteria. Air Liquide is assessing the technology options available to decarbonize heat production as part of the deployment of its climate objectives (described in paragraph 2.1 of the Extra-financial performance declaration, page 353).

Activities covering **biomethane production** through both the anaerobic digestion of bio-waste and landfill gas capture and

utilization represented an eligible turnover of 100.6 million euros in 2022 whose alignment ratio represented 42.7%. In line with the Group sustainability strategy, these projects are developed with clear sustainability criteria applied globally.

Other Group activities, which are in a growth phase, are also eligible, such as the manufacture of low-carbon technologies with an eligible turnover representing 99.0 million euros and whose alignment ratio was 36.7%. The Engineering & Construction business line notably designs and builds treatment plants that are able to reduce the CO₂ emissions of various industries, including:

- carbon capture plants which capture and purify CO₂ from offgas and flue gas from industrial processes (refining, cement, steel, etc.) to supply flow compatible with sequestration;
- plants capable of converting residues (used cooking oil, fats, etc.) into synthetic fuels to replace fossil fuels in motors, and plants capable of transforming sugar waste into substitute chemicals for fossil-based chemicals.

As of today, a portion of these eligible activities is considered as non aligned due to insufficient evidence to comply precisely with the detailed requirement of the EU Taxonomy regulation.

Besides, the activities associated with production of air gases, including the production of oxygen, medical gases and home healthcare, generate almost no direct greenhouse gas emissions and are not eligible to the EU Taxonomy.

3. Societal stakes

3.1. ETHICS AND COMBATING CORRUPTION

3.1.1. Ethical risk and combating corruption

In all geographical areas in which it operates, the Group faces risks of non-compliance with ethics and anticorruption provisions. These risks are part of the Regulatory and Legal risks (described in Chapter 2 of this Universal Registration Document, page 88).

3.1.2. Policy and procedures

Integrity and transparency are the cornerstones of the Group's ethical approach. They govern the behaviors and actions of all employees. These principles are reflected in a program based on a dedicated structure, codes and procedures, training tools and, finally, whistleblowing and control systems.

A dedicated structure

A dedicated structure has been set up to support the management of the Ethics program:

- an Ethics and Compliance Committee, comprised of Air Liquide's various global functions (Human Resources, Legal, Group Control and Compliance, Sustainable Development, etc.) and Operation representatives, validates the program's guidelines and priority actions and may, if necessary, recommend penalties in the event of serious deviations;
- the Group Control and Compliance Department, which is responsible for Ethics, reports directly to one of the Group's Executive Vice Presidents;
- the Ethics Officer is responsible for providing advice and assistance to entities in the implementation of the Ethics program and in the handling of fraud and deviations. This Officer also suggests improvements to the Ethics program by integrating strategic challenges, best practices, regulatory developments and annual action plans. He/she relies on a network of over 50 ethics correspondents present in each of the Group's geographic regions and business lines.

Codes and procedures

Rules on ethics and conduct, which are shared and actively circulated among all Group employees through the BlueBook in particular, are set out within the Group's Code of Conduct. These rules are implemented as operational procedures or policies at either the Group or local level.

The Code of Conduct, the ethics guide for employees

The Code of Conduct was updated in 2021 and rolled out across all Group subsidiaries in 2022. This Code embodies Air Liquide's ethical commitment, in particular with regard to the protection of employees, business practices and respect for the environment and human rights.

The Code of Conduct is available on the Group's website in 28 languages: <https://www.airliquide.com/sustainable-development/ethics>. An online employee training module exists on the employee Code of Conduct which sets out the Group's ethics approach and presents each subject through case scenarios. This module is mandatory and must be taken by all employees (including part-time staff) each year. On this basis, individual employee compliance with the Code of Conduct is required.

Thus, each employee personally undertakes to comply with the rules of conduct presented in the Code through an online signature process.

Compliance with laws and regulations

Codes and procedures have been established to ensure compliance with laws and regulations relating in particular to the fight against corruption, competition law, the duty of vigilance, personal data protection and import and export control obligations.

With regard to competition law, Behavior Codes have been established, especially in Europe, the United States and Asia. For some of the Group's activities, Healthcare in particular, specific Codes of Conduct on competition law have also been developed.

Audits are jointly conducted on a regular basis by the Group's internal audit departments and an external law firm. They conduct tests and interviews to identify and correct risk practices or any deviations observed. Awareness-raising meetings on compliance with competition law are also held. Finally, an online training program has been launched covering competition law-related practices and international principles.

Anti-corruption program

Air Liquide's commitment, which is set out in the introduction to the Principles of Action, to prohibit all forms of corruption is supported by a major anti-corruption program. In the updated Code of Conduct, the principles of integrity and transparency are defined and illustrated in a specific chapter. This chapter specifically outlines the laws governing the fight against corruption and influence peddling, covers relations with intermediaries and the types of payment requiring particular attention.

Moreover, the Group has a Supplier Code of Conduct, which includes a chapter on the prevention of corruption.

An online training module ensures sufficient awareness is raised regarding the prevention of corruption. It is primarily intended for those teams which are most exposed to corruption-related risks (sales, procurement, administrative management, and so on) and managers. These employees must complete this training module every year. It is supplemented by in-person training every three years. Air Liquide operates a corruption-prevention program in which Executive Management and management are closely involved. This program relies in particular on:

- the mapping of corruption risks;
- the Code of Conduct;
- a complete set of training and awareness-raising actions for those exposed to corruption risks;
- a third-party assessment mechanism, a whistleblowing system and accounting controls.

This program is regularly updated to take into account new regulatory and legal requirements under the coordination of the Group's Ethics Officer, who relies on a network of ethics correspondents and the support of the Operational Departments in the hubs and businesses; it is regularly audited.

Extra-financial Performance Declaration

3.1.3. Performance

The Ethics and Compliance Committee ensures that the ethics program is correctly implemented by monitoring action plans and reviewing indicators such as employee participation rates in classroom training and online training courses. By way of illustration, 98% of Group employees completed the Code of Conduct online training module and 97 % of employees exposed to corruption risks completed the online training module on corruption prevention.

The Committee also analyses the corruption and report types received via the whistleblowing system and the results of internal audits or other internal investigations, providing guidelines for changes to the ethics program.

The whistleblowing system

Since 2015, the Group has operated a whistleblowing system at all its entities (EthiCall for all Group companies excluding Airgas, and EthicsPoint for Airgas and its subsidiaries), whereby employees and external workers can anonymously send an alert to an independent external service provider. This system was made available to all of the company's partners (customers, suppliers, etc.) at the end of 2021.

Policy breaches may concern any:

- conduct or situations that breach the Group's health and safety commitments;
- serious human rights violations;
- conduct or situations that breach the Group's environmental commitments;
- deviations from the Code of Conduct.

Regular communication (via posters, the intranet, e-learning reminders, management communications) ensures that all employees are familiar with the whistleblowing system and can easily file an alert in their own language by telephone or through the provider's dedicated website. The Group guarantees that any whistleblower who reports something in good faith will not be penalized and no retaliatory measures will be taken, a principle which is reiterated in the Code of Conduct. Third parties are informed of the existence and operation of the system on the Group's website.

All alerts are handled confidentially and within a reasonable period of time, usually less than two months. Alerts are handled by internal teams in accordance with their nature and geographical origin. Processing managers can utilize external resources if necessary. The most severe cases are reviewed by an Ethics Committee for the relevant hub or general business area, or where necessary by the Group's Ethics and Compliance Committee. This system complements other means of reporting incidents within the entities (immediate supervisor, Human Resources Department, Legal Department, etc.). It enables alerts to be handled quickly and in a structured way, minimizing their potential impact on individuals and the organization.

The whistleblowing system is overseen by the Group Ethics Officer, who ensures it is compliant in its implementation, and in particular that it is properly disseminated throughout the Group, alerts are handled appropriately, and whistleblowers are protected. He or she reports the key indicators and lessons learned from this system to the Group's Ethics and Compliance Committee.

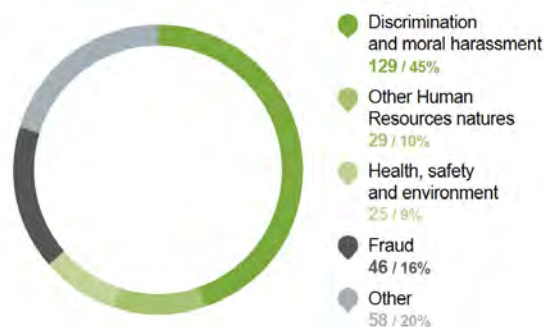
In 2022, 287 policy breaches were notified through the whistleblowing system, including:

- discrimination and bullying: 129 cases;
- other subjects linked to human resources: 29 cases
- health, safety, and environmental violations: 25 cases;
- fraud: 46 cases;
- other: 58 cases.

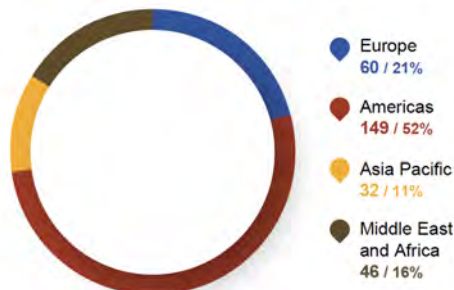
As of December 31, 2022, 66 alerts were still being processed. 27% of policy breaches were found to be justified following an investigation and led to sanctions and corrective measures.



BREAKDOWN OF ALERTS PER NATURE (number / %)



BREAKDOWN OF ALERTS PER GEOGRAPHY (number / %)



3.2. FIGHTING TAX EVASION

3.2.1. Risk of tax evasion

As far as tax is concerned, the Group focuses on complying with laws and regulations. Modifications of laws and regulations are followed and monitored by its Tax Department and its local Finance Departments. Tax risks are part of the financial risks (described in Chapter 2 of this Universal Registration Document on page 84).

3.2.2. Policy and procedures: the Tax Charter

The Group's tax Charter supports its ambition to remain a leader in its sector by acting in a responsible manner, consistent with the Group's long-term growth strategy. Air Liquide has defined the following principles which govern its tax policy, in line with article L. 22-10-36 of the French Commercial Code:

- a. Group entities must respect the laws and regulations in force, as well as the international standards that affect it such as those of the OECD, in particular on transfer prices;
- b. Group entities ensure that tax returns and payments are completed in compliance with local regulations. They complete the required tax returns according to the jurisdictions in which the Group operates;
- c. the Group is committed to acting with integrity in all tax-related matters. It aims to operate in a transparent manner and build constructive, long-term relationships with the tax authorities;
- d. the Group deals with tax-related matters by banning tax havens and does not make use of shell corporations without economic or commercial substance;
- e. the Group protects value for its Shareholders by taking measures to minimize double taxation phenomena. Furthermore, it acts to minimize fiscal risk. Its tax strategy is in line with the Group's strategy and complies with the Code of Conduct.

Air Liquide applies a tax compliance and transparency policy, guaranteed by the presence of qualified and dedicated teams of tax experts who are up to date with the latest tax reforms and respect the Group's values. The Group is committed to acting with integrity in all tax-related matters. In the countries where it operates, the Group maintains transparent, constructive and long-term relationships with the tax authorities, providing them with the information they need within a reasonable period of time. L'Air Liquide S.A., on its own behalf and on behalf of its integrated French subsidiaries, is the first company to sign the "Fiscal Partnership" with the French tax authorities. By signing this partnership in March 2019, L'Air Liquide S.A. and its subsidiaries entered into a trust-based, transparent relationship with the French tax authorities. This commitment continues without interruption.

The Group ensures that its operations comply with tax regulations, so that it pays an appropriate amount of tax according to the place where the value of its business activity is created, without artificially transferring value within low-tax jurisdictions.

The Group does not use opaque structures or entities in tax havens and does not withhold useful information from the tax authorities. It does not use structures that lack economic or commercial substance.

4. Respect for human rights and commitment to sustainable development

Air Liquide is committed to respecting human rights in its operations around the world. The Group strongly believes that all persons should be treated with respect and dignity and that companies should play a role in protecting these fundamental rights. Air Liquide shares the principles laid down in the International Bill of Human Rights, the International Labour Organization (ILO) Declaration on Fundamental Principles and Rights at Work, the United Nations Guiding Principles on Business and Human Rights (UNGPs) as well as the Organization for Economic Co-operation and Development (OECD) Guidelines for Multinational Enterprises. These promote an ethical and

It applies the arm's length principle to transfer pricing and does not use transfer pricing as a tax planning tool. As the Group's organizational structure is decentralized, its intra-group transactions are very limited and do not represent more than 15% of total sales. The Group applies an intra-group cash flow policy that complies with the OECD principles.

Air Liquide complies with the "Country-by-Country Reporting" (CBCR) obligations.

3.2.3. Performance, organization and governance of the tax function

The subsidiaries' tax affairs are the responsibility of their Finance Departments. Due to their size, some subsidiaries have a specialized Tax Department reporting to the Finance Department, such as in France, the United States, Germany, China, Canada, Italy, Benelux and Spain. In some cases, a geographic hub Tax Department reporting to the hub's Finance Department has been set up to coordinate taxation in several countries, such as in South-East Asia and Africa/Middle East.

All these country or regional Tax Departments have a functional link with the Group's Tax Department, which is based at the head office. The latter coordinates the network of tax teams, in particular through regular meetings to identify significant issues, provide the appropriate technical support and the necessary guidance. As the Group's businesses make it a significant contributor to the tax revenues of the countries in which it operates, and since the Group is faced with a high number of taxes and duties, and certain countries have unstable tax regimes, the Tax Departments conduct a tax watch.

The Group Tax Department is part of the Group's Finance Department. It maintains links with the various financial, legal and other organizations in order to keep abreast of the Group's operations. It participates in the Finance Committee, an internal Group committee, to ensure the tax position complies with the Tax Charter. The Department presents the Group's main tax risks to the Audit and Accounts Committee at least once a year.

It should be noted that Air Liquide's industrial gas businesses are essentially very local in nature. Consequently, Air Liquide generates profit and pays its taxes in the jurisdictions in which it operates. In the case of transactions between different countries, the Air Liquide legal entities in question comply fully with the applicable transfer pricing regulations.

responsible business conduct in economic activities and professional relations, in particular in terms of human rights, by encouraging the implementation of due diligence procedures. The commitments of Air Liquide and its employees to protect human rights are also confirmed in the Code of Conduct which was updated in 2021 and rolled out in all entities in 2022. The Code of Conduct is available on the Group's website in 28 languages: <https://www.airliquide.com/sustainable-development/ethics>.



Air Liquide has been a signatory of the United Nations Global Compact (UN Global Compact) since 2014. The initiative calls on companies to make a voluntary public commitment to respect its Ten Principles relating to human rights, international labour standards, the environment and the fight against corruption. These are derived from the International Bill of Human Rights, the International Labour Organization's Declaration on Fundamental Principles and Rights at Work, the Rio Declaration on Environment and Development, and the United Nations Convention against Corruption. Every year, Air Liquide issues a Letter of Commitment, signed by the Group Chief Executive Officer, as well as a Communication on Progress with respect to

Furthermore, Air Liquide is a signatory of the Responsible Care Global Charter[®] of the International Council of Chemical Associations (ICCA), which aims to improve the chemical industry's global performance on health, safety and environmental protection.

Within Air Liquide, human rights issues are included in the Group's vigilance approach, described in the Vigilance Plan in Chapter 2 of this Universal Registration Document – page 95. The Duty of Vigilance Department is responsible for coordinating the implementation of this approach with all functions concerned by human rights issues (Human Resources, Safety and Industrial System, Procurement, Sustainable Development, Ethics and Digital Security, etc.). The progress of the vigilance approach is monitored by the Ethics and Compliance Committee and supervised by the Environment and Society Committee, which is one of the Board of Directors' specialized Committees.

The vigilance approach is based on the approach advocated by international human rights due diligence standards such as the

the strategic and operational implementation of these Ten Principles, which is available on the UN Global Compact website: UN Global Compact (<https://www.unglobalcompact.org/what-is-gc/participants/39281>).

In 2022, Air Liquide volunteered to join a group of "Early Adopter" companies and answer the new questionnaire issued by the UN Global Compact on all aspects of sustainable development. This questionnaire must be completed by the signatories of the UN Global Compact as their Communication on Progress in order for their commitment to be recognized from 2023 onwards.

United Nations Guiding Principles on Business and Human Rights and the OECD Due Diligence Guidance for Responsible Business Conduct. In particular, Air Liquide identifies and analyzes the salient risks for people and the environment, the methodology of which is described on page 98.

Therefore, Air Liquide incorporates the various principles of the UN Global Compact in the conduct of its activities. To find out more about the measures implemented in terms of:

- human rights and fundamental rights at work, see the Vigilance Plan on page 99, and the main EFPD discrimination risks and Human Resources management pages 348 and 350;
- the environment, see the Vigilance Plan page 115 and the main EFPD environmental risks page 353;
- combating corruption, see the main EFPD combating corruption risk page 387.

Lastly, through its activities, its engagement and its environmental and social actions, Air Liquide contributes to certain Sustainable Development Goals (SDGs) that the United Nations has set up to eradicate poverty, protect the planet and guarantee prosperity for all by 2030. The diagram below illustrates the contribution of the SDG Group.



Air Liquide's commitments

The 10 principles of the United Nations Global Compact

Human Rights

1. Businesses should support and respect the protection of internationally proclaimed Human Rights, and
2. Make sure they are not complicit in Human Rights abuses.

International labor standards

3. Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;
4. The elimination of all forms of forced and compulsory labor;
5. The effective abolition of child labor;
6. The elimination of discrimination in respect of employment and occupation.

Environment

7. Businesses should support a precautionary approach to environmental challenges;
8. Undertake initiatives to promote greater environmental responsibility; and
9. Encourage the development and dissemination of environmentally friendly technologies.

Anti-Corruption

10. Businesses should work against corruption in all its forms, including extortion and bribery.

5. Cross-reference tables of extra-financial reporting guidelines

5.1. TCFD/NFRD CROSS-REFERENCE TABLE

The Task Force on Climate-related Financial Disclosures (TCFD) was created at COP21 by the G20's Financial Stability Board to establish a common global framework for reporting climate risks with an impact on companies.

The cross-reference table below provides references for information in Air Liquide's Universal Registration Document that addresses these recommendations.

Information to be published in accordance with TCFD recommendations	Elements of the Directive covering the publication of non-financial information (NFRD)				
	Business model	Policies and Due Diligence Process	Outcomes	Principal risks and their management	Key performance indicators
Governance	a) Board's oversight		Chapter 3 p. 158 to 159		
	b) Management's roles		Chapter 1 p. 42 and 45 Chapter 2 p. 93		
Strategy	a) Climate-related risks and opportunities			Chapter 1 p. 38 and 40, 70 to 72 Chapter 2 p. 86 to 87 Chapter 5 p. 353 to 368	
	b) Impact of climate-related risks and opportunities	Chapter 1 p. 37 and 40, 70 to 72, 64 to 66 Chapter 5 p. 361 to 364			
	c) Resilience of organizational strategy	Chapter 1 p. 37			
Risk Management	a) Identification and assessment process			Chapter 2 p. 86 and 87 Chapter 5 p. 353 and 368	
	b) Management process			Chapter 2 p. 86 and 87 Chapter 5, p. 358 to 366, 368, 369, 372	
	c) Integration into overall risk management			Chapter 2, p. 93 Chapter 5, p. 345	
Indicators and Objectives	a) Indicators used for the assessment				Chapter 1, p. 65 Chapter 5, p. 359 to 365, 424 to 430
	b) GHG emissions		Chapter 1, p. 65 Chapter 5, p. 359, 342 to 428		
	c) Objectives		Chapter 1, p. 37		

Moreover, the TCFD published an updated application guide for recommendations in October 2021. Changes introduced by this new version include the addition of seven key indicator categories to be reported and the information to be provided in terms of climate transition.

The additional cross-reference table corresponds to this new information and is as follows:

Climate key indicator		
GHG emissions	Total Scope 1 emissions	Chapter 1, p. 65, chapter 5, p. 354 and 425
	Total Scope 2 emissions	Chapter 1, p. 65, chapter 5, p. 354 and 425
	Total Scope 3 emissions	Chapter 5, p. 354 and 426
	Carbon intensity	Chapter 1, p. 65, chapter 5, p. 359 and 428
Transition risks	Activities and assets exposed to transition risks	Chapter 2, p. 86, chapter 4, p. 310; Chapter 5, p. 357 to 366
Physical risks	Activities and assets exposed to physical risks	Chapter 2, p. 87, chapter 5, p. 368
Climate-related opportunities	Share of revenue, assets or other activities in line with climate opportunities	Chapter 1, p.36, chapter 5, p. 378
Capital deployment	Amount of investments or financing deployed to address climate risks and opportunities	Chapter 1, p. 57 to 59, chapter 5, p. 380 and 381
Internal carbon price	Internal carbon price used by the Group	Chapter 1, p. 40, chapter 5, p. 358
Remuneration	Share of remuneration of members of Executive Management and the Executive Committee relating to climate criteria	Chapter 3, p. 184, 195, 231
Key information on climate transition plans		
	Current GHG emissions performance	Chapter 1, p. 65, chapter 5, p. 354
	Impact of the low-carbon transition on the business model, strategy and financial plan	Chapter 1, p. 37 to 40
	Actions and activities supporting the transition	Chapter 1, p. 64 to 66, chapter 5, p. 353 to 359

Extra-financial Performance Declaration

5.2. SASB CROSS-REFERENCE TABLE

The Sustainability Accounting Standards Board (SASB) is a non-profit organization created in 2011, producing sustainable development reporting standards by industry sector. The SASB takes five elements into account when establishing its standards: environment, social capital, human capital, innovation and business model, and leadership and governance.

The SASB has not yet developed a standard for the industrial gases industry. Consequently, the cross-reference table below contains references to information in Air Liquide's Universal Registration Document that meets SASB standards for the chemical industry.

SASB Chemicals sector statement		Air Liquide
Topic	Accounting metrics	References in the Universal Registration Document 2022
Greenhouse gas emissions	Gross global Scope 1 emissions, percentage covered under emissions-limiting regulations	Chapter 5, EFPD – Climate (GHG emissions) (p. 354), Annual Reporting (p. 425)
	Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction objectives, and an analysis of performance against those targets	Chapter 1, Extra-financial Performance (p. 61 and 62) Chapter 5, EFPD – Climate (GHG emissions) (p. 354, 358 and 362)
Air quality	Air emissions of the following pollutants: NO _x (excluding N ₂ O), SO _x , volatile organic compounds (VOCs), and hazardous air pollutants (HAPs)	Chapter 5, Annual Reporting - Discharges into air and water (p. 430)
Energy management	Total energy consumed, percentage grid electricity, percentage renewable, total self-generated energy	Chapter 5, Annual Reporting - Energy and Efficiency KPIs for the whole Group (p. 429)
Water management	Total water withdrawn, total water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress	Chapter 5, EFPD - Water Management (p. 368), Annual Reporting (p. 429)
	Number of incidents of non-compliance associated with water quality permits, standards, and regulations	Not applicable
	Description of water management risks and discussion of strategies and practices to mitigate those risks	Chapter 2, Environmental and societal risks (p. 86) Chapter 5, EFPD - Water Management (p. 368)
Hazardous waste management	Amount of hazardous waste generated, percentage recycled	Chapter 5, Annual Reporting - Waste and By-Products (p. 430)
Community relations	Discussion of engagement processes to manage risks and associated with community interests	Chapter 2, Environmental and societal risks (p. 86) Chapter 5, EFPD - Climate (GHG emissions) (p. 354), Relationship with stakeholders - Sustainable development issues materiality matrix (p. 395 to 396), Civil society (p. 416 to 420)
Workforce Health & Safety	Total recordable incident rate (TRIR) and fatality rate for direct employees and contract employees	Chapter 5, EFPD - Health and Safety (p. 348), Annual Reporting (p. 423)
	Description of efforts to assess, monitor, and reduce exposure of employees and contract workers to long-term (chronic) health risks	Chapter 5, EFPD - Health and Safety (p. 346 to 348)
Genetically modified organisms	Percentage of products by revenue that contain genetically modified organisms (GMOs)	Not applicable
Product Design for Use-phase Efficiency	Revenue from products designed for usephase resource efficiency	Not applicable
Safety & Environmental Stewardship of Chemicals	Percentage of products that contain Globally Harmonized System of Classification and Labeling of Chemicals (GHS) Category 1 and 2 Health and Environmental Hazardous Substances, percentage of such products that have undergone a hazard assessment	Chapter 5, Annual Reporting – Waste and By-Products (p. 430)
	Discussion of strategy to manage chemicals of concern and develop alternatives with reduced human and/or environmental impact	Chapter 5, Annual Reporting – Waste and By-Products (p. 430)
Management of the legal and regulatory environment	Discussion of corporate positions related to government regulations and/or policy proposals that address environmental and social factors affecting the industry	Chapter 2, Environmental and societal risks (p. 86), Chapter 5, Annual reporting - Regulations (p. 432 to 434)
Operational safety, emergency preparedness and response	Process Safety Incidents Count (PSIC), Process Safety Total Incident Rate (PSTIR), and Process Safety Incident Severity Rate (PSISR)	Chapter 5, EFPD, Health and Safety (p. 348), Annual Reporting (p. 423)
	Number of transportation incidents	Chapter 5, EFPD, Health and Safety (p. 348), Annual Reporting (p. 423)

RELATIONSHIP WITH STAKEHOLDERS

1. Sustainable development issues materiality matrix

1.1. APPROACH

Contributing to a sustainable future implies working with all stakeholders and sharing responsibilities openly, fairly, and responsibly. Air Liquide is committed to further improving its relationship with its stakeholders through transparency and a continuous and responsible dialog.

Stakeholder priorities are constantly evolving: for example, the Group carries out formal materiality assessments on a regular basis to identify and prioritize issues that are most important to stakeholders.

Thus, in 2020, the Group conducted a consultation of its stakeholders on Sustainable Development issues. The purpose of this matrix is to integrate the main risks and opportunities into the Group's strategy according to the importance attached to them by various stakeholders.

21 issues covering environmental, social, societal, economic, Human Rights and governance aspects were consequently submitted for consideration by the Group's stakeholders. Nearly 1,400 responses were received, compiled and analyzed to produce this materiality matrix of Air Liquide's sustainable development issues. This consultation will be updated regularly.

1.2. METHODOLOGY

All Group stakeholders were interviewed during this consultation in most of the geographical regions in which the Group operates: customers, patient associations, suppliers, investors, journalists, NGOs, employee representatives, students and future generations, innovation partners, focus groups of employees and individual shareholders.

These stakeholders represented two categories of profiles:

- the Group's **internal stakeholders** with a strategic insight into topics;
- **internal and external stakeholders** with operational knowledge of these topics.

The project was conducted over four months (from October 2020 to January 2021) by a project team comprising members of the Group's Sustainable Development Department and a Steering Committee formed of representatives from operational and functional departments. A specialized firm was also appointed to support the internal teams for this project and carry out the various consultations.

Stakeholders were interviewed using two consultation methods:

- individual **qualitative interviews** providing a more detailed insight and comments on the various issues and assigned rating;

- **online questionnaires** to assess the importance and effectiveness of each issue, sent to a wider audience (e.g. employees).

These consultations were supplemented by analyses concerning extra-financial rating agencies, press reviews, studies of reporting standards such as TCFD or SASB, and the contribution of a foresight consultant to improve the way in which the Group's various issues and areas of action were presented and defined.

The results were then consolidated by giving equal weight to each stakeholder's assessments.

1.3. RESULTS

The matrix shown below highlighted the following elements:

- the 21 sustainable development issues are considered to be important by stakeholders. No question received an average score of less than 2 on a scale of 1 to 4;
- 14 issues were assessed as major, with a wide consensus of support. Stakeholders recognize Air Liquide's commitment in these areas and their integration into Group strategy.

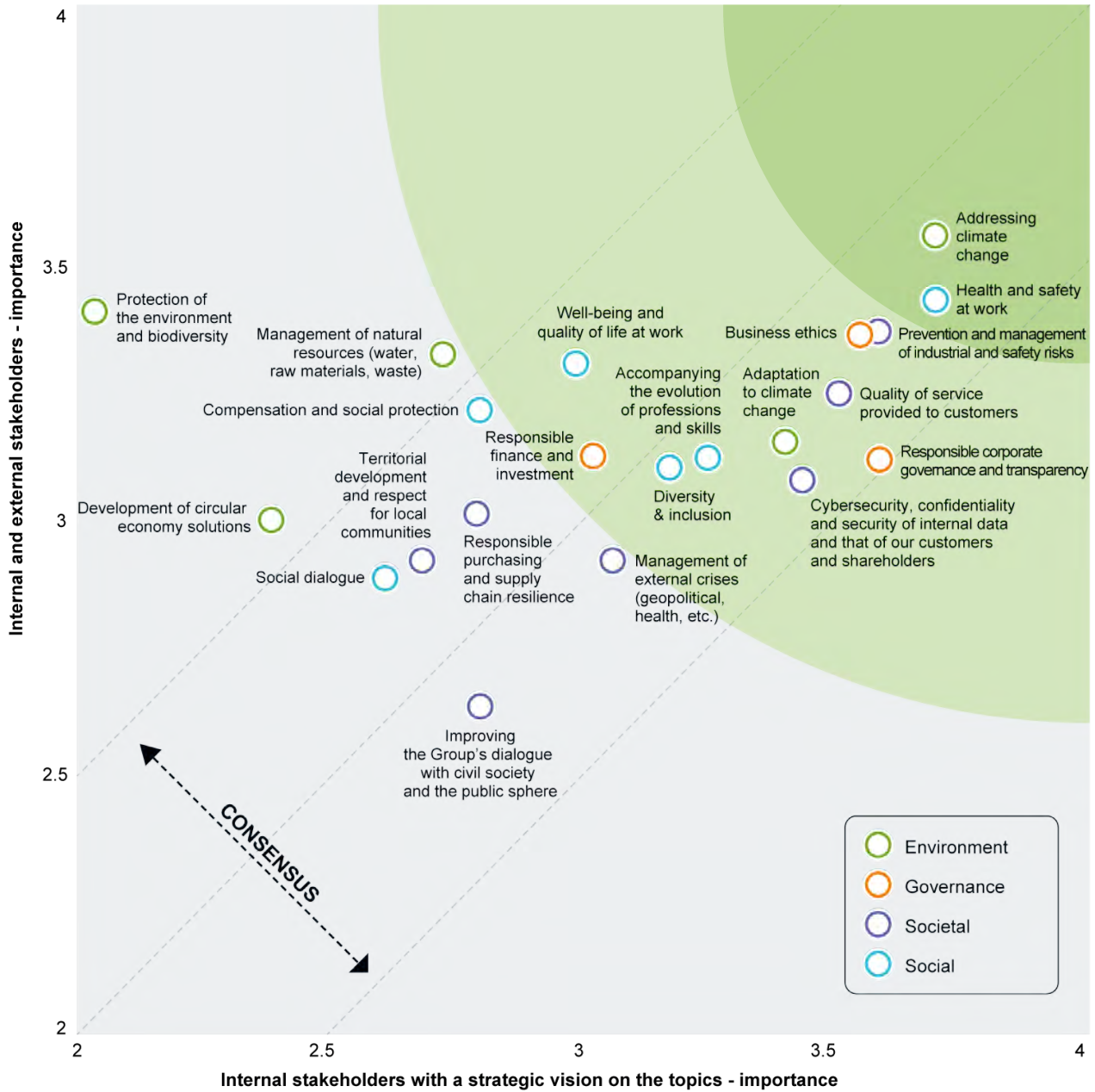
Issues such as health and safety at work, ethics, quality of service to customers and climate change action were rated as very important by stakeholders, who also recognize the Group's achievements in these areas.

The issue relating to protection of the habitats and biodiversity is the only one where the various stakeholders have significantly differing views. The Group has already identified the importance of this issue by addressing the biodiversity risk in the Extra-financial Performance Declaration published in this Chapter (page 371) and by carrying out several actions, also described in the EFPD.

Compared to the analysis carried out previously, the materiality matrix showed the emergence in 2020 of social issues or challenges that are largely taken into account in the Group's strategy:

- adaptation to climate change and greenhouse gas emissions (page 353);
- diversity and inclusion (page 399);
- well-being and quality of life at work (page 398);
- remuneration and social protection (page 398);
- management of external crises (geopolitical or health crises, etc.) (page 88);
- responsible finance and investment (page 407).

Relationship with stakeholders



As a result of this study, the Group has adjusted its sustainable development strategy to focus on priority themes.

2. The long-term engagement of employees

2.1. HUMAN RESOURCES

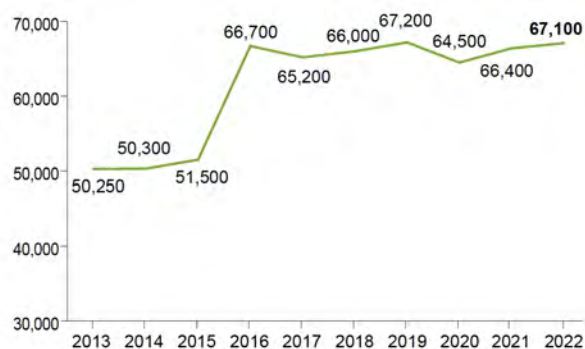
Air Liquide brings 67,100 people together of more than 150 nationalities, in 73 countries ⁽¹⁾, who form multicultural teams with a host of skills.

The Group strives to promote diversity, encourage innovation and employee engagement, meet customers' expectations and guarantee Air Liquide's long-term performance.

In an environment undergoing profound transformation, Air Liquide has developed a Human Resources strategy to identify, attract, maintain and develop competent employees from all walks of life. This strategy is based on the following three priorities:

- encouraging employee engagement;
- developing an agile and collaborative structure;
- anticipating the future of work.

GROUP HEADCOUNT



2.2. EMPLOYEE ENGAGEMENT

2.2.1. Employees' voices

There is a direct link between employee engagement and Group customer's satisfaction, which is at the heart of the Company program. Employee engagement is one of Human Resources' priorities. Air Liquide has launched a commitment monitoring measurement program, My Voice. It aims to improve employee experience and well-being. It is based on a simple concept: listen, understand and act. Following the launch of the initiative in Asia Pacific in 2019, feedback is gathered annually from employees across the entire Group to obtain a better understanding of their expectations and to identify and introduce appropriate measures – and, as a result, significantly increase their engagement.

A short survey covering some 20 topics is sent to each employee with room to leave comments if desired. The questions cover areas such as safety, work-life balance, career development, inclusiveness, independence, career development and trust in management. Answers are completely anonymous and confidential to ensure that employees are free to express their thoughts. Results are collected in real time, aggregated and analyzed by means of a shared system for the entire Group. Each manager has access to the results from his or her team – provided that the thresholds needed to guarantee confidentiality are respected.

Since its launch, this program has confirmed Air Liquide's strengths which contribute to employee commitment and identified opportunities, particularly in the context of the health crisis in order to provide appropriate responses as soon as possible.

Targeted actions are launched at different levels in the organization: with managers and their employees to improve team dynamics, at the level of the entities by management teams, and at the Group level.

At this last level, the results of the program made it possible, for example, to:

- implement initiatives to improve communication and education on the way the remuneration policy is constructed;
- strengthen the sharing of information concerning the Group's major strategic orientations with all employees, which has notably been reflected in the communication about the ADVANCE strategic plan.

The results of the My Voice survey also confirmed the overall satisfaction of employees with the support provided by the Group during the covid-19 health crisis.

2022 SUSTAINABLE DEVELOPMENT SURVEY

Air Liquide believes that it has a collective responsibility to build and shape a sustainable future. Two years after the announcement of the sustainable development objectives, the Group considers it important to gather feedback from employees on their understanding and engagement with sustainable development.

In December 2022, the Group launched an internal sustainability survey, reaching more than 78% of the Group population, to measure the interest of its employees in ESG thematic as well as their personal involvement in these subjects. The data collected provides insight into the Group's strengths and especially, employees' belief that sustainability must be a top priority for Air Liquide. The survey also reflects opportunities for the Group to improve, notably by providing more information and training on sustainability topics. In 2023, Air Liquide will launch actions to address employee feedback and increase sustainability-related engagement.

2.2.2. Mobility of skills development

Air Liquide is continuously looking to recruit diverse profiles to build multi-disciplined and complementary teams.

The Group's diversity is characterized by the fact that there is no "standard career path". On the contrary, each employee adapts their career path according to their individual goals and the career opportunities offered by the Group. Internal mobility and technical expertise are two major factors in career development.

⁽¹⁾ Excluding Russia, where the entities are in the process of being divested. They are no more consolidated following the loss of control on September 1st, 2022.

Relationship with stakeholders

THE TECHNICAL COMMUNITY LEADERS PROGRAM

The Technical Community Leaders (TCL) program enables talents in technical domains to access career paths that offer them both recognition of their technical expertise and opportunities to develop and evolve in the field of this expertise. Today, Air Liquide has more than 4,200 technical experts, playing a driving role in sharing expertise and technical excellence, serving our customers and patients.

This community of the Group's technology experts contributes to the transfer of technical know-how that Air Liquide will need in the future.

As part of this TCL program to identify technical talent, 143 new international experts were appointed in 2022, in our nine areas of expertise (Large Industries, Industrial Merchant, Healthcare, Electronics, Engineering & Construction, Innovation and Development Division, Industrial Operations & Security, IT & Digital, Hydrogen Mobility). TCL is a key driver of innovation and a major contributor to ensuring the long-term reliability and safety of our products and operations.

2.2.3. Employee performance and remuneration

The performance review meeting is a key stage in employee development, as it facilitates a discussion between the employee and their manager on performance and development, the assessment and setting objectives for the year ahead. In 2022, 78% of Group employees had a performance review meeting with their immediate supervisor.

The comprehensive remuneration of Group employees is based on three criteria:

- the position held;
- the degree of responsibility;
- performance.

In addition, the state of the local market, pay equity and current legislation are taken into account. It is generally made up of a basic salary plus additional compensation and benefits items.

The variable part of remuneration is structured locally for certain categories of employees to reward performance. In general, it depends on parameters such as the Group's earnings, the entity's earnings and individual performance, which is measured in quantitative and qualitative terms. By rewarding collective and individual performance, Air Liquide encourages collaboration and contribution to overall earnings.

Most of the managers and professionals have variable pay, which includes sustainable development objectives.

Remuneration may also include benefits such as death and disability insurance, health insurance, profit-sharing⁽²⁾ or solutions to help balance work and family life, which vary by country.

In 2022, 59% of the Group's employees received an individual variable portion as part of their remuneration.

15% of managers' variable remuneration is linked to sustainable development criteria, such as safety, customer satisfaction, energy efficiency and equality.

Finally, the top 375 Group executives have a significant portion of their variable remuneration linked to these criteria, notably safety, as well as to the Corporate Sustainability Program targets for their entity.

Despite the covid-19 crisis, the Group has maintained its remuneration policy commitments.

2.2.4. Transformation of the working environment

The Group ensures that it builds a performance-focused, attractive and collaborative work environment while also safeguarding the health and well-being of Group employees in their workplace.

These practices were incorporated into principles that were jointly developed with European social partners. In 2019, the Group partnered with the European Works Council to develop the "Care and Perform" initiative, whose purpose is to prevent psychosocial risks. This led to the creation of a charter based on principles of action linked to improvements in work scheduling, workloads and work-life balance. The content of this charter facilitated the conclusion of company agreements with social partners in order to offer new services to employees. In several European countries, agreements on the right to disconnect and work remotely have been concluded to meet specific needs and support the transition toward new working conditions.

More generally, within the context of changes to the Group's organizational models, which were accelerated by the covid-19 pandemic, Air Liquide launched a global project in 2020 called "Next Normal" to support this shift in working organization.

With this project, the entities can provide their employees with:

- a new framework including team management;
- a supervised remote working policy;
- reorganization of workspaces;
- careful consideration of interactions with customers and patients;
- a new framework for Air Liquide's responsible travel policy.

Common Social Coverage

As part of the ADVANCE objectives announced in 2022, Air Liquide's aim is to ACT FOR ALL by engaging with employees. On this occasion, the Group renewed its commitment to offering a common basis of care coverage to all employees by 2025.

This care coverage will guarantee:

- an insurance with a compensation equivalent to one year's salary in the event of death;
- healthcare that includes inpatient and outpatient care;
- a minimum of 14 weeks paid maternity leave.

From May to September 2021, entities were grouped by country so that gaps in their current coverage could be assessed and a plan devised to phase in upgrades by 2025.

In 2022, the percentage of employees benefiting from this common basis of care coverage is 42%.

A special team was set up within the Human Resources Department to oversee the plan's roll-out and measure progress within the Group on an annual basis. In addition, in 2022, each hub has drawn up a 2023-2025 roadmap to achieve the target set.

⁽²⁾ This method of remuneration, used in certain countries, is at the Company's initiative or in response to local legislation or market requirements.

Key indicator	2021	2022
100% of our employees to have common basis of care coverage by 2025, including death and disability insurance, healthcare and a minimum of 14 weeks of paid maternity leave	34%	42%

Citizen at Work: enabling employees to actively serve their local communities

For many years and throughout the world, Air Liquide's employees have been volunteering, either during or outside their working hours, to support their local communities, with the support of subsidiaries' management or the Foundation. To encourage this even further among its 67,100 employees, the Group has created the Citizen at Work program, with the aim of giving employees the means to act and increasing its collective impact. This initiative, launched at the beginning of 2022 with a pilot phase, provides guidelines for entities to deploy local volunteering initiatives for all employees. It will be gradually rolled out across the entire Group to reach 100% of entities by 2025. At the end of 2022, 43% of Group employees already had access to this program. Each project identified as part of this new initiative is in line with Air Liquide's sustainable development objectives and enables employees to get involved in areas such as professional development, child education, environmental protection, healthcare and social inclusion.

Examples of program initiatives carried out in 2022:

- Air Liquide France Industrie employees were involved in preparing 750 meals for distribution to disadvantaged people in the Paris region;
- Air Liquide employees in South Korea supported students throughout the year as part of a mentoring program called "ALTogether";
- Air Liquide USA employees took part in cleaning up a bayou in the Houston area, as part of the "Clean It Like You Mean It" Trash Bash operation.

2.2.5. Legal working hours

Each Group entity defines, in agreement with representative bodies and in line with local regulations, legal working hours which encourage engagement and performance.

In addition to the regulations, the European "Care & Perform" principles and rules are also designed to organize work in a way that respects the autonomy, flexibility and private life of each employee.

To facilitate the deployment of the "Next Normal" project, Air Liquide developed a reference guide in 2021. First shared with managers, the guide helps the entities to set up new working methods based on the initial global experience. Working groups were then organized with employees in the entities to validate the commitments.

In France, the general framework of legal working hours is defined in agreements with the labor unions.

Meanwhile, the industrial businesses, as well as those in Healthcare, include on-call systems that are regularly discussed and are subject to agreements with the labor unions.

2.2.6. Renewing social dialog

Air Liquide is committed to meaningful social dialog in all of its subsidiaries. This comes in different forms according to local regulations. In 2022, 86% of Group employees had access to a representation, dialog or consultation structure.

In Europe, the European Works Council has 29 employee representatives from 12 countries. It was renewed in 2021 for a term of four years. In 2022, two plenary meetings were held under the chairmanship of a member of the Executive Committee, and an exceptional plenary meeting was held to provide information and consult on the Human Resources process transformation project and the roll-out of the new tool in Europe. This project is part of a Group project.

Five meetings of the Bureau of the European Works Council (composed of five members elected in plenary) were held during the year to ensure information and listening on various projects and topics of interest affecting several countries in Europe. A number of meetings were held remotely and others face-to-face at key sites such as Lisbon and Krakow.

In April, the Chairman's report was issued as stipulated in the Council's agreement. The main topics covered were the presentation of the new Group version of the Code of Conduct, the Group's annual results and more particularly in Europe, the extra-financial results (safety, reliability, turnover, training, diversity, etc.), the presentation of the new ADVANCE strategic plan, security and safety.

Another important achievement was the finalization of the work initiated in 2021 resulting in a reference manual on new hybrid working methods ("Next Normal" project); the subject continues to be monitored by a working group.

At the end of the year, a presentation on the Duty of Vigilance was shared with the European Works Council and, on this occasion, the results of the working group dedicated to dealing with the Group's salient risks were presented.

Fiscal years 2020 and 2021 were in large part devoted to managing the pandemic crisis together with employee representatives. They were characterized by continuous and strengthened social dialog with bodies such as the Social and Economic Council (CSE), the Group Committee, the European Committee and the Health, Safety and Working Conditions Commission (CSSCT).

2.3. AN AGILE AND COLLABORATIVE STRUCTURE

The second focus of the Human Resources strategy consists of building an agile and collaborative structure capable of addressing the challenges of a continuously changing world. This requires facilitating cross-divisional exchanges within Group's teams to ensure sustainable performance.

2.3.1. Inclusion and diversity

Diversity is a priority of Air Liquide's Human Resources strategy and policy and the Group considers it a source of dynamism, creativity and performance. It is a fundamental element of the organization, in terms of both businesses and employees, and drives the Group's long-term performance.

The Group's objective is to increase diversity among managerial staff to better recognize the various cultures that make up Air Liquide and to improve gender equality. In this respect, quantified gender equality targets have been set for the Group. The local entities took an inventory of the current situation to define an objective at the level of the clusters and thus contribute to the overall objective.

Relationship with stakeholders

Within the Human Resources organization, a team leads diversity projects. The roadmap is based on three criteria:

- deploy diversity objectives at in all entities and implement corresponding action plans;
- improve all of the Group's Human Resources processes to reduce any bias and avoid all forms of discrimination;
- promote an inclusive culture to leverage teams' diversity.

Each hub and business then implements its own roadmap and diversity action plans taking the local situation into consideration. In this context, they analyze processes and practices, identify potential biases and implement corrective measures ("nudges") to limit these biases. Thus, during the regular reviews of talents with high potential, the diversity of profiles is taken into account, with the aim of continuing to increase diversity in the Group's key positions. This also serves as a way to promote the many cultures present within the Group, and to strengthen gender equality.

At an entity level, the Group's objective is to have teams comprising employees who represent the environment in which they operate. Each entity is therefore responsible for implementing action plans specific to its own environment and legal framework, which may include many forms of diversity (skin color, ethnic origin, religion, sexual orientation, etc.). Through its diversity policy, Air Liquide is strongly committed to fighting any form of discrimination.

2.3.2. Gender

The Group has set a number of ambitious gender equality objectives, aimed at reaching a rate of:

- 35% women at the "Managers and Professionals" level, by 2025. These objectives are in line with the results obtained over the past ten years, which have seen the share of female "Managers and Professionals" within the Group increase from 26% to 31.5% ⁽³⁾;
- 25% of executive positions (senior executives) held by women by 2025.

PERCENTAGE OF WOMEN AMONG MANAGERS AND PROFESSIONALS



(a) Including Airgas since 2017.

(b) The share of women among "Managers and Professionals" is rounded off in increments of 0.5%.

(c) Including Airgas since 2016.

The ambitious gender diversity objectives set for the "Managers and Professionals" and "senior executives" population, and for maintaining the gender diversity goal among "high potentials", are also intended to form a pool to ensure balanced gender representation on the Executive Committee by promoting female talents to higher levels of management. Moreover, in view of the new obligations laid down by the "Rixain" Law of December 24, 2021, the Group is also aligning its gender equality objectives with

regard to the Executive Committee with those of the Law, i.e. 30% of women by March 1, 2026.

In 2022, women represented 47% of employees considered as high performers, this level has been increasing regularly for a number of years and must be maintained. The Executive Committee includes four women among its 14 members.

More generally, and taking the highest level of responsibilities across the Group into account, women hold 24.8% of all positions defined as "senior executives," . This latter percentage has increased from 19% to 24.8% over the last four years.

Among the 10% of positions with the greatest level of responsibility within the company ⁽⁴⁾ L'Air Liquide S.A., 28.4% of them are held by women. These women have an average age of 52.6 years and a median age of 55.6 years, i.e. 3.2 and 0.8 years less respectively than the average age (55.8 years) and median age (56.4 years) for men. This difference is due to the policy to promote women to the highest levels of responsibility earlier on in their careers, and therefore eliminate career development discrepancies that occur in the absence of proactive measures in this area.

Finally, the promotion of an inclusive culture also contributes to a sustainable approach to diversity. Numerous initiatives are deployed within the Group: events, learning opportunities, mentoring, networks and communities for different interest groups such as women's careers. Another recent example is the second edition of the movement for inclusion, which is a development opportunity for committed employees. For seven months, 220 of these "Inclusion & Diversity enthusiasts" designed and carried out experiments across the Group using innovative methods to promote inclusion in the work environment. These new approaches are disseminated throughout the organization in a spirit of continuous improvement.

Gender and equal pay

In France, the law of September 5, 2018, known as the "Loi avenir professionnel," requires companies with more than 50 employees to implement an annual mechanism for assessing gender pay gaps, the result of which is a public social score for the Company (out of 100 points). The Professional Equality Index and five related indicators must also be made available to the Social and Economic Committee and transmitted to the Labor administration.

In 2022, the Group's 30 companies with at least 50 employees in France were audited. The weighted average Professional Equality Index stands at 90.5/100, maintaining the trend compared to 2019, 2020 and 2021. The company L'Air Liquide S.A. published its fifth annual Professional Equality Index, which reached 97/100.

Outside of France, the Group initiated a common process to assess the gender pay gap by creating an internal index based on the French index but tailored to Air Liquide's global presence. It was deployed for the first time in 2019 for entities with more than 400 employees.

This index from the year 2021 onwards is calculated on the basis of the weighting of four criteria:

- pay gap between women and men, using the median salary per job grade;
- individual wage increase gap between women and men per job grade;
- percentage of employees having received a salary increase after a maternity leave;
- gender diversity among the 10 highest remunerations.

⁽³⁾ The share of women among "Managers and Professionals" is rounded off in increments of 0.5%.

⁽⁴⁾ A total of 116 positions.

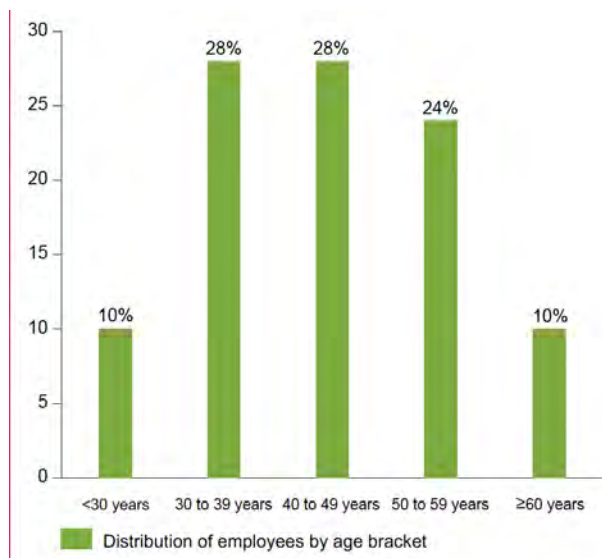
For the year 2021, the scope of the index has been expanded to include entities with more than 200 employees, and the calculation method has been revised. The changes made, including the use of median salary and job classification aim to obtain a more accurate result.

The result of the 2021 index, calculated in 2022, is 75/100 based on 74% coverage of the Group's employees (entities with more than 200 employees), while the result of the 2020 index was 82/100 for a scope covering 61% of the workforce (entities with more than 400 employees). The lower score in 2022 is due in particular to the expansion of the index to entities with more than 200 employees, thus including countries with greater social disparities. An action plan has been deployed:

- part of the "Merit Increase" budget was allocated to filling wages gaps;
- awareness workshops with HR population were organized.

2.3.3. Age

DISTRIBUTION OF EMPLOYEES BY AGE BRACKET IN 2022



The Group is committed to fostering better qualifications and training programs for young people to facilitate their integration into the workplace.

Internship and apprenticeship contracts are encouraged. In France, 557 young people have benefited from work-study contracts and 468 from an internship, combining theoretical learning at their university or school and a practical internship at Air Liquide.

Seniors will represent an increasing share of Air Liquide employees in the coming years. Their contribution to mentoring programs (notably the Technical Community Leaders program), and training programs aimed at younger generations will be further promoted.

Various initiatives have been introduced within the Group to ensure the support and engagement of employees nearing retirement age. For example, in France:

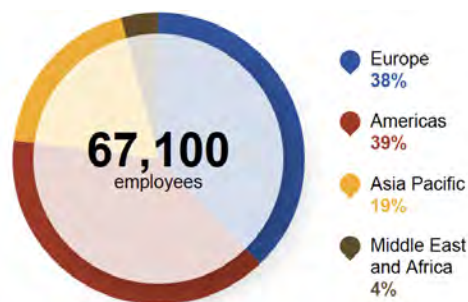
- 26 people became skills sponsors following the pilot launched in France in 2018;
- "generation / youth-employment contracts" were continued. They include initiatives promoting the hiring and retention of older employees.

The Group has international exchange programs to attract and develop young talents: the ALLEX programs for executives and EVE for technicians (more than 600 people since they were set up).

2.3.4. Nationality

There are 35 different nationalities among Air Liquide's senior managers. The Group's Board of Directors comprises four nationalities. In terms of total employees, more than 150 different nationalities are employed by the Group.

BREAKDOWN OF EMPLOYEES BY GEOGRAPHIC AREA



2.3.5. Disability

Launched in 2017 at the European level, the HandivAirsity initiative aims to encourage diversity by integrating people with disabilities into teams.



"Our differences make our performance." This slogan carries a strong conviction. The inclusion of disabilities is fully in line with the policy to promote diversity within Air Liquide.

This desire is not new, it has been embodied since 2007 in successive agreements in France which have advanced the policy of welcoming, maintaining and promoting the professional development of people with disabilities. Air Liquide is committed to finding solutions to keep disabled people in the workplace. The following adjustments are planned to accommodate for disabilities in the workplace:

- ergonomic studies and adaptation of the workstation with regard to the capacities of the person;
- specific equipment and tools;
- adaptation of methods of access to work premises and specific training services;
- transportation and moving assistance.

Air Liquide makes teams aware of the inclusion of disabilities in order to facilitate the reception and professional integration of workers with disabilities in the Company. The French subsidiaries have awareness-raising plans in order to strengthen the level of information for all players and fight against any prejudices that may persist. In 2022, a survey of employees in a selection of French entities was carried out in order to gain a better understanding of the obstacles to the inclusion of people with disabilities in the teams and thereby determine appropriate actions. The results of this survey will be shared more widely with the European disability coordinators. The French entities participate in particular in DuoDay, a day where they welcome a person with a disability paired with a volunteer professional.

Relationship with stakeholders

Within a scope covering around 6,000 employees based in France, a fifth Disability agreement for a period of three years (2020-2022) was signed at the end of 2019. The aim of this agreement is to continue with measures already implemented in favor of people with disabilities and thus further improve the direct employment rate to reach 4.2% in 2022 vs. 3.3% in 2018. The 2021 rate, calculated in April 2022, is 4.43% (4.35% in 2020). Negotiations with the labor unions began in late 2022 for the signature of a sixth Disability agreement for the 2023-2025 period.

More widely in Europe, other concrete actions were also carried out to change the way disability is seen in operations and accelerate the pace of recruitment: campaign ambassadors, and a working group with managers.

2.3.6. Network organization

Air Liquide has a decentralized organizational structure which relies on its hubs and clusters (groups of countries or entities). This network structure on a global scale is more agile, fosters initiative and strengthens proximity with customers.

A collaborative work platform called "Kite" has been launched throughout the Group. Kite is changing every year to offer its users new services. Thus, the Group offers employees the opportunity to set up and access communities hosted in internal collaborative communication software (Google Currents) accessible from the Kite collaborative platform. These communities rally employees on subjects: expertise, tools, events, procedures, shared interests, etc. They transform working methods by fostering flexibility, efficiency, diversity and collective intelligence.

This network structure and collaborative platform have made it possible, during this pandemic crisis, to maintain an efficient working structure and connections between employees.

2.4. ANTICIPATING THE "FUTURE OF WORK"

The "Future of Work" cornerstone focuses on identifying the business lines and skills of the future. To do so, the Human Resources teams must understand and anticipate trends that are likely to transform our business.

2.4.1. Business lines and skills

The aim is to implement an efficient action plan to help employees evolve at the same pace as their business line. To support each employee in this new technological environment, Air Liquide University has developed:

- a Sales Academy, which was set up to strengthen key skills in the Group's business lines. Over 4,364 employees have had the opportunity to develop, thanks to the academy. In 2022, for the purpose of continuity of training, the majority sessions were held virtually; the translation of the modules into a dozen languages, initiated in 2021, continued in 2022. More than 40% of training courses were conducted in the local language;
- a "digital passport", which consists of several self-assessment questionnaires on digital culture in general, but also on knowledge of Kite (the Group's collaborative work platform);
- data challenges have also been held. These competitions make it possible to share data skills quickly while creating value.

2.4.2. Career-long training and development

Air Liquide takes special care to develop its employees' skills and expertise throughout their careers. Several ways of learning are provided. Everyone must be proactive in this regard.

In 2022, the percentage of Group employees who had at least one day of training during the year was 74%; this excludes regulatory training.

The online training offering is upgraded year by year and covers many topics such as safety, ethics, Human Resources processes, management, and, more recently, digital technology.

A new online self-learning package (#ILoveLearning) was deployed in 2019 as part of a pilot by Air Liquide University. Since then, over 25,644 employees have used this self-service training.

BREAKDOWN OF TRAINING TOPICS



Through its programs and structure, the University, which celebrated its 10th anniversary in 2019, supports the Group's strategic initiatives and promotes the Air Liquide culture. Today, the University is present at a Group level and globally promotes new ways of learning, in both traditional and non-traditional ways. As such, the Company's various businesses and functions can access tools to design their own programs.

Modern teaching methods are coupled with formal and informal skills, online training, lessons, support, mentoring, co-development, etc. The programs are as practical and relevant as possible, and use role play, mock exercises, workshops, case studies, guided discussions and various feedback mechanisms.

Following the health crisis, the digital transformation of many business lines and increased training for employees, the University has once again in 2022 launched a virtual event and a Learning Festival open to the entire Group, which revolve around six themes: Management & Leadership, Sales & Marketing, Operational Excellence, Innovation, Climate & Energy Transition and HR professionals. This has resulted in 4,230 employees logged in to over 220 online sessions: webinars, virtual classes and learning paths.

Air Liquide University has also organized the first Learning Festival, a two-week long virtual event dedicated to peer-based learning, with every session offered by internal Air Liquide facilitators. The 120 internal facilitators and 51 creators of mini-tutorials passed on their knowledge to the 2,500 participants in more than 100 sessions and 45 microlearning videos.

As part of the BeActEngage – Trust and Grow program, the Group provides employees with the means to learn throughout their career. As a learning company, Air Liquide also encourages employees to pass on their knowledge and learn from each other, and peer-to-peer learning is an excellent opportunity to broaden their skills.

These events have, firstly, promoted interactions within the Group thanks to participants from 72 countries and, secondly, revealed employees' creative and teaching abilities:

Among the University's programs, those on management and leadership cover all modern management situations, thereby promoting the use of a shared language at a Group level. These programs help managers understand the increasingly volatile and complex world around them and provide the Group with the relevant expertise to maintain its leadership position over the long term.

3. Shareholders: a long-term relationship

More than **64%** of shareholders have owned their shares for more than **10 years**.

Shareholders have been contributing to and supporting the Group's growth since its creation. During the 2016 acquisition of Airgas, they once again confirmed their commitment to the Group's development through large-scale involvement in the capital increase in cash with Preferential subscription right. Today, it is thanks to their loyal support that Air Liquide can continue to change and grow. Air Liquide's long-term profitable growth strategy and its commitment to its Shareholders are therefore closely linked. By promoting individual share ownership, through

various measures in place and by offering Shareholders the expertise of its dedicated department, Air Liquide fosters a close relationship based on dialog with its Shareholders on a daily basis which focuses on the following key principles:

- promoting long-term share investment;
- encouraging shareholder loyalty through registered shares and the establishment of loyalty bonus policy;
- promoting dialog and meetings, whether face-to-face or digital;
- recognizing and promoting the Shareholder's key role.

DISTRIBUTION OF CAPITAL (AS OF DECEMBER 31, 2022)

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Individual shareholders	36%	37%	36%	33%	32%	32%	32%	33%	33%	35% ^(b)
French institutional investors	19%	17%	18%	20% ^(a)	19%	18%	17%	16%	15%	14%
Non-French institutional investors	45%	46%	46%	47% ^(a)	49%	50%	51%	51%	52%	51%
Treasury shares	> 0%	> 0%	> 0%	> 0%	> 0%	> 0%	> 0%	> 0%	> 0%	> 0%
Registered capital	36%	35%	36%	33%	34%	35%	34%	34%	34%	35%
Capital eligible for the loyalty bonus	30%	30%	30%	26%	25%	26%	28%	28%	28%	28%

(a) In 2016, the proportion of institutional investors in the Group's capital increased due to their over-subscription to the capital increase.

(b) Part of the increase in the proportion of capital held by individual Shareholders between the end of 2021 (33%) and the end of 2022 (35%) is due to the change of the tool used to identify Shareholders in application of the European Shareholder Rights Directive (SRD2). The results obtained thus provide more precise information on the shareholding structure, in particular with regard to individual Shareholders abroad.

Air Liquide is regularly recognized for the quality of its relationship with Shareholders. In 2022, at the 21st edition of the Investor Awards organized by Boursorama, the Group received the Shareholder Democracy award for the second consecutive year. The company also received the bronze trophy for the best shareholder services in the CAC 40 awarded by Le Revenu.

The Chairman is directly involved in the General Meeting, as well as in events with Shareholders such as the "post-General Meeting" conference held in Lille on May 12, 2022 or the "Génération Hydrogène" show. He also chairs the Shareholders' Communication Committee (SCC).

3.1. A STEADY LONG-TERM PERFORMANCE AND AN ATTRACTIVE REMUNERATION POLICY

Since its initial public offering in 1913, Air Liquide has always shown a profit and shared the fruits of its growth by rewarding its Shareholders' trust through a remuneration and loyalty policy based on regular dividend distribution, allocation of free shares, and a loyalty bonus program. As a result, more than 50% of earnings over the last 10 years have been distributed to Shareholders.

3.2. CUSTOMIZED SERVICES

The Shareholder Services Department, with more than 40 employees and experts, is dedicated to Air Liquide's Shareholders.

Air Liquide is at the disposal of all its Shareholders, whether individual or institutional, "bearer" or "registered" shareholders, to inform them and support them. In addition to its steady performance and remuneration policy, Air Liquide promotes the registration of shares in order to enhance the value of the investment in shares and build long-term Shareholder loyalty.

In 2017, the Shareholder Services Department launched its "Shareholder Journey" approach to continue strengthening the quality of service to Shareholders. This global approach of listening closely to Shareholders and their expectations aims to make administrative formalities more fluid by offering more personalized services, ensuring better and wider circulation of strategy and financial information, for example with live broadcasts of events for Group Shareholders. The latest digital tools are also at the heart of this initiative, as they provide a formidable lever for multiplication and personalization.

Relationship with stakeholders

3.2.1. Registered Shareholder services

Registered shares are eligible for a loyalty bonus: to thank Shareholders for their loyalty, they are eligible for a loyalty bonus after holding their shares in registered form for two full calendar years. They receive a +10% increase in the amount of dividends paid and +10% more free shares distributed during free share attributions. Shareholders who hold their shares in registered form automatically benefit from the loyalty bonus and do not need to take any action. The only requirement is that they have held their shares in registered form for more than two calendar years on the day the dividend is paid or on the day the free shares are attributed.

Air Liquide is the only CAC 40 non-banking company which keeps managing internally all aspects of its shares on behalf of both its 123,000 Shareholders who hold their shares directly with Air Liquide ("direct registered") and the 181,000 Shareholders who choose to deposit their shares in a Bank, while being known to the Company ("administered registered"): account keeping, register keeping, centralization of the General Meeting. It does not charge custodial or management fees. Broker fees are among the lowest on the market at 0.1% excluding VAT for transactions made online in the Shareholder Portal and paid for by bank card or direct debit. For transactions settled by other forms of payment in the Shareholder Portal or for stock market orders placed by another means of communication (e.g. telephone call or online request), broker fees are 0.18%. These broker fees apply, with no minimum purchase or sale, from the first share purchased or sold.



DIFFERENT SHAREHOLDING OPTIONS

Hold shares through a financial institution: default option, "bearer"

The shareholder holds a security account or share savings plan (in French *Plan d'Epargne en Actions* or *PEA*) with his or her financial institution. The shares are held in "bearer" form and the Shareholder's contact is his or her financial institution.

Hold shares through a financial institution: shares converted to "administered registered" shares

The Shareholder holds a security account or a *PEA* with his or her financial institution. He or she should ask his or her financial institution to convert his or her "bearer" shares to "administered registered" shares. "Administered registered" shares are eligible for the loyalty bonus and are registered in his or her name in the Air Liquide register. The Shareholder's contact person remains his or her financial institution.

Hold shares directly with Air Liquide: "direct registered" form

The Shareholder holds a securities account directly with Air Liquide without using a financial institution. His or her shares are registered in his or her name in the Air Liquide register and are eligible for the loyalty bonus. As a reminder, it is impossible to open a *PEA* or to convert shares from a *PEA* to "direct registered" shares. The Shareholder's contact person is the Shareholder Services team.

3.2.2. Innovation for the benefit of Shareholders

In 2020, Air Liquide set up a 100% digital security account: from the <https://www.airliquide.com/> website, in a few minutes and free of charges, an individual can directly open a "direct registered" security account by including digital supporting documentation. Opening a securities account online has met with great success and has become the preferred way to directly open a securities account with Air Liquide ("direct registered").

The information documents dedicated to Shareholders such as the Shareholders' Fact Sheets, the Shareholders' Guide or the Notice of General Meeting are drawn up with a particular focus on education. Comic strips have been created and are sent to junior Shareholders via their legal representatives; they help explain shareholding and present the Group's activities. Air Liquide also publishes, in the month after the event, a report on its General Meeting, which is available at <https://www.airliquide.com/>. In addition, more frequent e-mails on major strategic events, such as the announcement of the sustainability objectives, have also allowed to reach our individual Shareholders more directly and maintain the connection with them. An exclusively digital monthly newsletter presents topics of importance to Shareholders, whether it be Shareholder education or topics related to the Group's activity (hydrogen, biomethane, space, etc.).

An FAQ is online on the <https://www.airliquide.com/> website, under the Shareholders section; it covers key topics for Shareholders and presents the most frequently asked questions with short and practical answers.

Shareholders who hold shares with Air Liquide ("direct registered" Shareholders) have access to a secure online Shareholder Portal that allows them to place stock market orders online and to view the transactions carried out on their securities account. The ergonomics of this Shareholder Portal were redesigned in 2022; it now provides a more intuitive experience and new functionalities. It also offers one of the lowest brokerage rates on the market: 0.1% excluding VAT, with no minimum transaction.

Shareholders also have access to the new Shareholder Lounge inaugurated on November 23, 2022 in the presence of the Chairman, Benoît Potier, and the Chief Executive Officer, François Jackow. This space showcases Air Liquide to Shareholders. It promotes Sustainable Development with the choice of new furniture based on its origin, recyclability, recycled content and environmental impact. The previous furniture was recycled or donated. This space, unique in the CAC 40, provides Shareholders or people looking for information on Air Liquide shares with the ability to talk face-to-face with the Shareholder Relations Advisors. Located at the Company's head office at 75, Quai d'Orsay, 75007 in Paris, it welcomes Shareholders from Monday to Friday, from 9 a.m. to 5 p.m. Shareholders are advised to make an appointment online from our website before any visit.

Air Liquide manages a Shareholders' Communication Committee (SCC). Composed of 12 Shareholders, the SCC generally meets three times a year under the Chairmanship of the Chairman and enables rich discussions with these Shareholder representatives. It is regularly consulted on matters relating to communication with Shareholders. This year, the SCC welcomed eight new members for a three-year term. A committee member is part of the Air Liquide Foundation's Project Selection Committee. In 2022, the Shareholders' Communication Committee met three times, chaired by Benoît Potier.

3.2.3. The General Meeting, the expression of Shareholder democracy

Each year, all Air Liquide Shareholders who hold at least one share are invited to the General Meeting. They receive all the documentation relating to their vote approximately one month before the General Meeting, either by mail or by email in the case of Shareholders who have opted for this means of communication. In accordance with the principle of Shareholder equality to which Air Liquide is very committed, each share entitles its owner to one vote. Air Liquide endeavors to make all this material available in English to its non-French-speaking Shareholders in similar timeframes. Air Liquide centralizes its General Meeting by collecting the votes of its Shareholders directly and offers voting by Internet.

In 2022, the Air Liquide General Meeting was a time for reunion. Following the 2020 and 2021 General Meetings held behind closed doors due to the health constraints, it allowed Shareholders to be welcomed in person once again. This marks an important year with a change in governance within the Group: Benoît Potier remains Chairman of the Board of Directors and François Jackow was appointed Chief Executive Officer. It was the occasion for the new strategic plan for 2025, ADVANCE, to be presented.

Air Liquide is already working, and will continue to work, with banks and specialized service providers of all kinds to identify and introduce reliable and secure solutions to enable all Shareholders to participate in the General Meeting, both at the physical place of meeting and remotely, before and during the Meeting, in accordance with legal rules.

As of December 31, 2022, the overall financial performance of the Air Liquide share, i.e. the rate of return on invested capital, or Total Shareholder Return (TSR)⁽¹⁾, remains well above the performance of its benchmark index:

END OF 2022 DATA

TSR	5 years	10 years	20 years
Air Liquide registered shares	+11.54%	+10.67%	+11.69%
Air Liquide bearer shares	+11.22%	+10.21%	+11.12%
CAC 40 reinvested dividends	+6.97%	+9.18%	+7.21%

3.5. 2022 INITIATIVES

3.5.1. Individual Shareholders

Individual Shareholders have been contributing to and supporting the Group's growth since its creation. Shareholders' trust and loyalty are key to Air Liquide's growth. For more than a century, the Group has been dedicated to involving them in its growth and has fostered a long-term relationship based on transparency, dialog and proximity.

At the end of 2022, nearly 750,000 individual Shareholders of the Group held 35% of the share capital: this proportion held by individual Shareholders is unique within the CAC 40 and significantly exceeds the proportion of other CAC 40 companies.

THE SHAREHOLDER DEPARTMENT AND SUSTAINABLE DEVELOPMENT

In line with the Group's objective to contribute to a more sustainable world, Air Liquide encourages its shareholders to receive their documents electronically (account documents, General Meeting voting documents, etc.). If they wish, Shareholders may request that these various documents be sent by post.

3.3. RECOGNIZING AND PROMOTING THE SHAREHOLDER'S KEY ROLE

Air Liquide is committed to defending individual Shareholding and promoting investment in shares, a real challenge for society with a strong increase in the number of individual Shareholders observed since the health crisis of 2020. The Group has supported initiatives such as those of the ANSA (Association nationale des sociétés par actions), the Observatoire des Actionnaires d'Avenir and the F2iC (the French Federation of Individual Investors and Investment Clubs), which contributed to the creation of the "PEA Jeunes", a young person's personal equity plan under the PACTE law.

3.4. 2022 STOCK MARKET PERFORMANCE AND OVERALL SHAREHOLDER RETURN

In 2022, the stock market performance of Air Liquide's shares was down -5.01% (vs. a -9.50% decrease for the CAC 40). Taken over a three-year period, including 2020 which was the pandemic year, the stock market performance of Air Liquide's shares was up +15.40% (vs. +8.29% for the CAC 40).

There have been 31 free share attributions since 1962, i.e. an average of one free share award every two years.

The website for recruiting new Shareholders, <https://deveniractionnaire.airliquide.com>, was relaunched with a series of updates. It presents the performance of Air Liquide's shares and explains the Group's strategy in a new way. To show the regularity and level of performance of the Air Liquide share, a simulator allows the visitor to position sliders to select the duration and the amount of the investment, then to compare this performance with that of the Livret A (France's most popular savings account). This simulator is now integrated into the site <https://www.airliquide.com/> and aims to attract new individual shareholders. The recruitment site is the subject to a referencing campaign in order to increase the number of visits and improve its positioning in search engines. It is an important tool to encourage people who are not Air Liquide's Shareholders to invest in this security.

⁽¹⁾ The TSR is an annualized rate of return for shareholders who buy shares at the beginning of the period and resell them at the end of the period. This calculation takes into account changes in the share price, dividends reinvested in shares and free shares awards, both increased by the loyalty bonus, and includes the impact related to the capital increase of 2016.

Relationship with stakeholders

Air Liquide's digital presence continued to grow in 2022 with several new online initiatives. As part of the Boursolive digital fair, the 1st "Let's Talk Equities" webinar was launched. The direct broadcast and its replay won over the audience with more than 11,000 views. This type of direct exchange will continue to be developed and a 2nd live webinar was organized for which more than 400 questions from Shareholders were asked. The aim of this new format is to inform individual Shareholders by answering their questions, as well as to make shareholding accessible to beginners.

A series of podcasts was broadcast during summer 2022. With original topics such as cosmetics and food, they reached a new audience of younger people who are used to this type of format, with nearly 8,000 total listeners.

Finally, short videos called "Speed learning" were offered in the Shareholders section of the Group's website. They allow a very specific subject related to shareholding to be presented in a short format, such as the loyalty bonus offered by Air Liquide to registered Shareholders or the elements that contribute to the development of a share portfolio. This format will continue to be developed because it provides a quick and very clear way to address topics that are important to Shareholders.



MEETINGS WITH SHAREHOLDERS

The General Meeting: following two General Meetings held behind closed doors, the return to meeting in-person brought together nearly 4,000 Shareholders at the General Meeting of May 4, 2022: around 2,500 were physically present at the Palais des Congrès in Paris and nearly 1,500 watched the webcast live. Almost 40 minutes of discussions with Shareholders took place during this General Meeting. The dates for the next Air Liquide Combined General Meeting are May 3, 2023, April 30, 2024 and May 6, 2025.

The "Post-General Meeting" conference: each year, following the General Meeting, the Chairman visits a city in the regions to present the Group's results, strategy and outlook to Shareholders. Thus, on May 12, 2022, more than 500 Shareholders gathered in Lille to listen to the presentation by the Chairman, who was accompanied by Émilie Mouren-Renouard and Matthieu Giard, members of the Executive Committee. The public was able to talk to the presenters and employees in the Shareholder Services Department who accompanied this trip.

Shareholder meetings: the Shareholder Services Department regularly meets with Shareholders in the regions. Given the health context, only two meetings could be organized in 2022: Nantes on October 3 and Toulouse on December 6. These meetings, attended by several hundred Shareholders, provide an opportunity to talk to the public, answer their many questions and present the company and the main services offered by Air Liquide. In 2022, the SSD also organized a roadshow in Switzerland to meet foreign investors in three different cities: Zurich, Lugano and Geneva.

"Investir Day": Air Liquide took part in the 2022 edition, which consisted of a series of digital meetings spread over several weeks and a day of events on Tuesday, November 29, 2022 at the Carrousel du Louvre. François Jackow, Chief Executive Officer, presented the strategies and outlook of the Group during a digital presentation. Three members of the Executive Committee, Diana Schillag, Émilie Mouren-Renouard and Matthieu Giard had the pleasure of participating in round tables and answering questions from a large audience of people wishing to learn more about Air Liquide, as well as people who were already Shareholders. This event is part of the strategy for recruiting new Shareholders and has a national scope.

3.5.2. Institutional investors

The Chief Executive Officer met with more than 400 investors in 2022, in Europe and the United States. Over the course of five roadshows, he held individual meetings with 25 major Shareholders, attended three meetings with a limited number of investors and four plenary sessions, notably during conferences.

The Chairman of the Board of Directors met with three major Shareholders in 2022 to discuss governance issues.

The Investor Relations team met with more than 1,400 investors in 2022 during seven roadshows, 36 conferences and numerous individual meetings. Members of the Executive Committee took part in a large number of these events.

Some meetings were held by videoconference, a practice that has become normal since the health crisis.

4. Sustainable finance

4.1. OVERVIEW

Since 2012 and the issuance by Air Liquide of the first Socially Responsible Investment-certified bond (500 million euros, refinancing the acquisitions of Gasmedi and LVL Médical) in the Home Healthcare sector, the financial sector has made significant progress in terms of Sustainable Development.

The Paris Agreement signed in 2015, and more recently the European Taxonomy, encourage investors and lenders to direct their capital towards sustainable assets by placing Corporate Social Responsibility (CSR) criteria at the heart of their investment decision strategy. Issuers are encouraged to use financing linked to CSR criteria.

Sustainable financial instruments now represent a significant share of all bond market issues, a share that is expected to increase in the coming years.

There are currently two main sustainable financing mechanisms:

- credit lines, bonds and loans backed by extra-financial performance indicators (“KPIs”), for which the funds raised are not dedicated to specific investments or expenses but whose cost depends on the achievement of these KPIs;
- “Green”, “Social” and “Sustainable” bonds or loans, in which the funds raised are dedicated to specific projects.

Non-governmental organizations such as the International Capital Market Association (ICMA) have also published guidelines to ensure the transparency and credibility of the developing CSR financial market.

4.2. INITIATIVES

As part of its growth strategy combining financial and extra-financial performance, in March 2021, Air Liquide presented new objectives for ACT in favor of a sustainable future. Air Liquide’s responsible and sustainable growth model also applies to its financial policy.

The Group is thus turning to the opportunities offered by the finance market by acquiring new responsible and sustainable financial instruments.

4.2.1. Alignment of the syndicated credit line with three CSR objectives (2019)

In December 2019, the Group introduced a mechanism in its 2.5 billion euro syndicated credit line aimed at correlating the costs of this credit line with three of its CSR (Corporate Social Responsibility) objectives in the fields of carbon intensity, gender diversity, and safety. This indexation mechanism consists of an increase or decrease in the cost of financing and commissions paid according to the achievement of objectives set annually for each criterion.

The environmental and societal performance criteria are as follows:

- the Group’s carbon intensity;
- the proportion of women among engineers and executives;
- the frequency rate of accidents resulting in lost time.

Since the implementation of this correlation mechanism, Air Liquide benefited from a reduction in the cost of its syndicated credit line in 2020 and 2021, thanks to the achievement of these three CSR objectives.

4.2.2. Implementation of a Sustainable Financing Framework and first green bond (2021)

Following the announcement of its sustainability objectives in March 2021, Air Liquide also implemented a Sustainable Financing Framework in May 2021. This framework makes it possible to support the financing and refinancing of assets and projects intended to have a clear benefit for the environment and society. It is aligned with the “Sustainability Bond Guidelines 2018”, “Green Bond Principles 2018”, “Social Bond Principles 2020”, “Social Loan Principles 2021” and the “Green Loan Principles 2021” overseen by the ICMA (International Capital Market Association), and validated by the Sustainalytics agency.

This initiative reflects a threefold ambition for the Group:

- align its financing strategy with its sustainability objectives;
- contribute to the development of sustainable finance;
- diversify its investor base.

This responsible and sustainable financing framework enables the Group to raise funds through bond issues, loans and any other instrument dedicated to financing sustainable projects.

Moreover, as part of this “Sustainable Financing Framework”, the Group completed its first green bond issue in May 2021, raising 500 million euros to finance and refinance several sustainable development projects, most notably in hydrogen, biogas and oxygen.

As part of the management of its cash surpluses, Air Liquide now favors sustainable investment vehicles, such as SRI-certified funds or funds likely to promote environmental and social characteristics. While this allocation does not currently apply to the majority of its investments, the Group intends to support market dynamics by relying on a growing range of investment vehicles eligible under Articles 8 and 9 of Regulation (EU) 2019/2088 on sustainable development disclosures in the financial services sector (known as the “Sustainable Finance Disclosure Regulation”).



ALIAD AND SUSTAINABLE DEVELOPMENT

Since 2020, ALIAD, the Air Liquide Group’s venture capital fund, has strengthened its position in impact start-ups. With more than 25 million euros invested, including 15 million euros in the field of energy transition, ALIAD is thus contributing to the Air Liquide Group’s strategic ADVANCE program, which combines growth and a sustainable future.

For example, in 2022, ALIAD invested in Botalys, a Belgian start-up that develops rare and medicinal plants by recreating ideal growing conditions through indoor vertical farming.

In 2022, ALIAD has also reinforced its investment in Flying Whales. This start-up is developing the “LCA60T” (Large Capacity Airship 60 tonnes) aeronautical program, an aircraft that can load and unload up to 60 tonnes of cargo while hovering. In addition to the ability to reach remote delivery points, this solution minimizes the footprint and emissions associated with transportation.

5. Serving customers and patients

In an increasingly dynamic and competitive environment, Air Liquide focuses its attention on its customers and their satisfaction in order to provide them with long-term growth. To strengthen this priority, the Group Customer Department is supervised by a member of the Executive Committee.

As part of its Healthcare business, Air Liquide strives to offer solutions that aim to improve the quality of life of patients and enable caregivers to focus on their medical duties. This approach is an essential lever for improving the health outcomes expected by patients and is an integral part of our “Value-Based Healthcare” strategy.

5.1. COMMITMENT TO INDUSTRIAL CUSTOMERS

Air Liquide meets the needs of over two million industrial customers worldwide. These customers come from sectors as diverse as steel, agri-food, chemicals, water and waste management, electronics, crafts, etc. The Group’s objective is to support its customers by providing them with services and solutions that are both innovative and reliable. This is possible thanks to in-depth knowledge of each of their businesses.

To assist us in working with and supporting customers and meeting their specific needs, the industrial structure is organized into three different activities:



Large Industries

The Large Industries business supplies around 500 customers in the metals, chemicals, refining and energy industries with gas and energy solutions which are essential to their own industrial production, enabling them notably to improve process efficiency, make their plants more environmentally friendly and reduce their carbon footprint.



Industrial Merchant

The Industrial Merchant business line serves over two million customers representing a very diverse range of sectors and requirements:

- materials and Energy;
- automotive & Manufacturing;
- food & Pharmaceuticals;
- technology & Research;
- craftsmen & Retail.

It offers them comprehensive solutions for implementing and optimizing industrial processes. Around 95% of the customer base in this sector is small customers who favor simplicity, flexibility and quality of service.



Electronics

This business area supports its customers in the semiconductor, flat panel and photovoltaic markets, drawing on its expertise, worldwide infrastructure and strategic partnerships with manufacturers. Its products and services respond to growing consumer demand for improved mobility, connectivity, processing power and energy savings.

The Group’s organization allows each entity and industrial activity to respond to the specific expectations of local customers within its geographical region, thereby building a close relationship with each customer. Customers demand flexibility, responsiveness, service, availability and a genuine long-term partnership.

In addition, some international customers require fully coordinated global management services. An organization dedicated to strategic key accounts helps support them and meet their specific needs. This program relies on a team of Key Account Managers whose mission is to develop in-depth knowledge of those customers so that they can better respond to their needs and adopt a strategic alignment with their growth priorities.

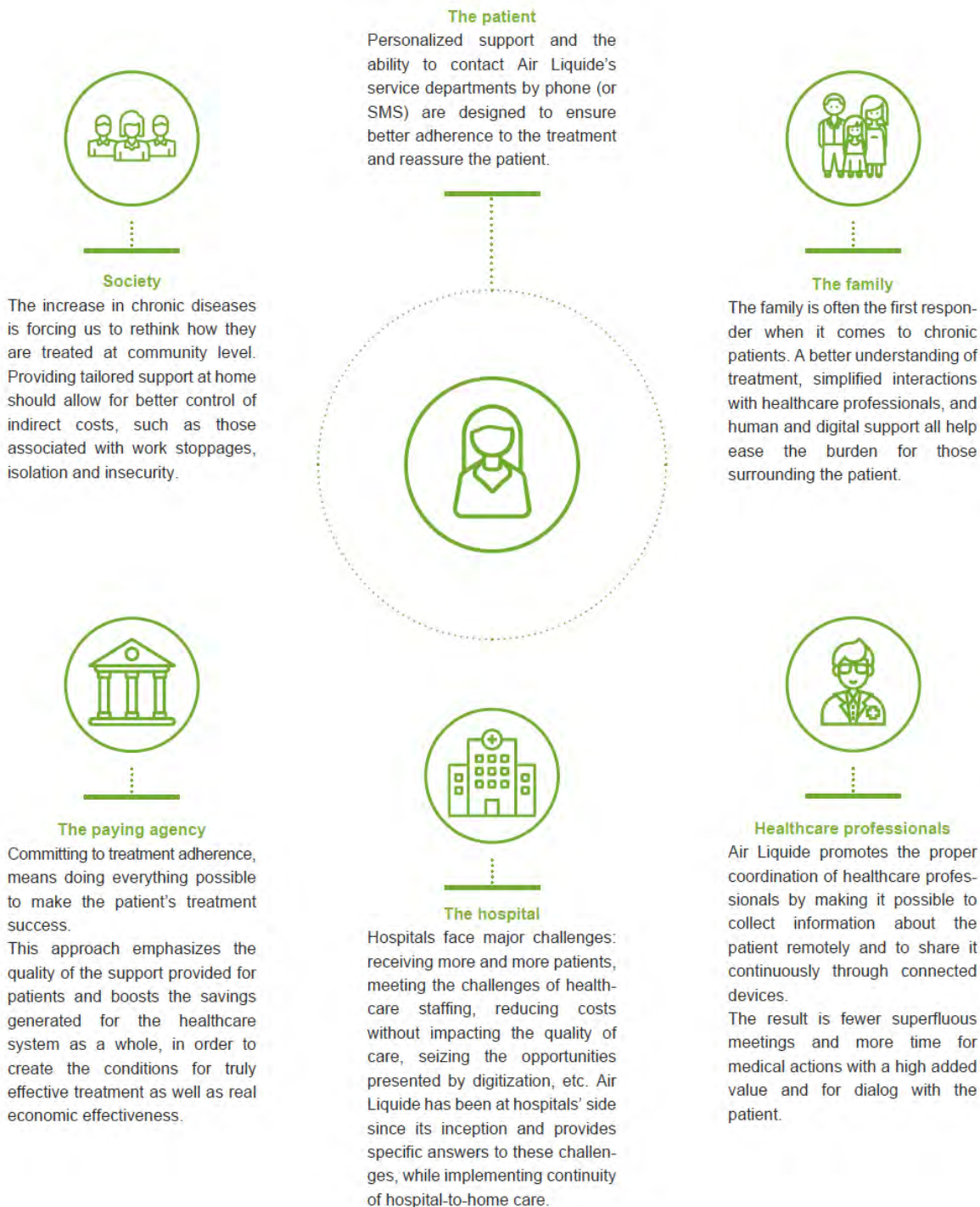
5.2. COMMITMENT IN PARTNERSHIP WITH PATIENTS, HEALTH PROFESSIONALS AND HOSPITALS

In 35 countries, Air Liquide’s 16,400 employees in the Healthcare business units – nurses, researchers, technicians, engineers, doctors, data scientists – support 1.9 million chronic patients and serve 15,000 hospitals and new healthcare facilities. Air Liquide Healthcare is committed alongside professionals and institutions to improve the health and quality of life of patients and make the healthcare system more efficient and beneficial for everyone.

Air Liquide Healthcare is a global player in medical gases, home healthcare services and specialty ingredients.

These activities are described on page 30 of Chapter 1.

AIR LIQUIDE AT THE HEART OF CARE PATHWAYS



Relationship with stakeholders

5.2.1. Home healthcare

As a leader in home healthcare in Europe (in number of patients supported), Air Liquide provides care in the home for people with chronic diseases. The Group provides respiratory and perfusion assistance solutions (e.g. for diabetes or Parkinson's). Thanks to its expert multidisciplinary teams, Air Liquide aims to increase patients' autonomy and quality of life, improve their treatment compliance and lower their risk of relapse or rehospitalization.

The Home Healthcare business is one of the responses to the shift to outpatient care and sits at the heart of the healthcare system between the patient, hospital or other healthcare facilities, doctors, nurses, health insurance organizations, pharmacists and others. It supplies the services, products and/or medical equipment necessary to start treatment at the patient's home, following the medical prescription, and coaches the patients and their families in the proper use of devices. Air Liquide has three key leverages; its close human proximity to patients at home for over 30 years, its technical knowledge of medical devices (whether connected or not), and its innovative strength, particularly in digital solutions. The Group therefore makes a major contribution to the continuum of care by ensuring regular support for patients with chronic conditions. This activity requires focusing on what really matters to the patient to improve their quality of life. To this end, Air Liquide offers personalized support plans, providing the support each patient needs when he or she needs it.

5.2.2. Hospital businesses

Air Liquide is one of the world leaders in medical gas production and distribution for hospitals and related services.

The teams work alongside healthcare professionals to develop solutions that allow them to focus on their medical duties at times that are often critical for patients. Whether in emergency rooms, operating rooms, or intensive care units, Air Liquide's medical gases and associated services make it possible to provide care, alleviate pain, administer anesthetics and improve respiratory functions.

Air Liquide offers services such as "Total Gas Management" (TGM), which remains permanently at the hospital in order to optimize the supply of medical gases and monitor the different supply parameters so that the hospital can function efficiently. Air Liquide supports the transformation of hospital care and the development of outpatient care with a significant presence in the urban medical sector and other care centers that serve as an alternative to hospitals.

5.2.3. Diversification of care settings

Air Liquide is interested in new alternative care locations between the home and the hospital, because it makes it possible to offer a continuity of care to patients, especially severe ones. The Group is already operating in this field through its local entities in Germany, for example, with the therapy apartments model, in Italy with nursing care for patients with chronic conditions, and in Poland, with a facility specializing in the care of ventilated patients.

Air Liquide's solutions are also dispensed by certain specialists in doctors' practices, in new care settings other than hospitals, and in retirement homes. Healthcare professionals such as ambulance attendants, general practitioners, dermatologists and dentists are local practitioners who play an essential role in caring for patients at various stages in their continuum of care.

In response to changing care settings and healthcare coordination issues, Air Liquide provides an offering tailored to their specific needs, particularly in terms of mobility, ease of use of their medical devices, and autonomy in monitoring their treatment.

5.2.4. Societal initiatives in healthcare

On March 23, 2021, as part of its new sustainability objectives, the Group reaffirmed its commitment to supporting patients, as defined in the "Care for patients" pillar of its "ACT for a sustainable future" objectives. In the process, the Group demonstrates how it is shaping the transformation of healthcare worldwide, through its businesses' contribution and collaboration with the healthcare ecosystem.

Working alongside patients, healthcare professionals and hospitals, Air Liquide's healthcare teams strive to improve support for patients and make the healthcare system more efficient and beneficial for everyone. As a key player in the healthcare sector, Air Liquide offers solutions in a wide range of care settings, from hospitals and at-home care to community healthcare practices, long-term care facilities, and emergency services. At the height of the global covid-19 pandemic in particular, the Group's Healthcare business line worked hard to positively impact society.

As an expert in the supply of medical gases and related services, as well as in home healthcare services, Air Liquide has set itself two main goals:

- a) improving the quality of life of patients living at home with chronic diseases in mature economies;
- b) improving access to medical oxygen in low- and middle-income countries.

a) Improving the quality of life of patients living at home with chronic diseases in mature economies

The contribution of Air Liquide's home healthcare activities to the Group's ESG strategy will be based on its strong expertise in the care and monitoring of patients living at home with chronic diseases. Air Liquide is committed to improving patients' quality of life by raising awareness of the disease, supporting and empowering patients, helping them identify the most important outcomes to them, and tailoring our healthcare services to their personal situation and lifestyle.

The Group is pursuing two sets of concrete measures to improve the care and benefits that matter most to patients:

- develop initiatives in partnership with patient associations, healthcare professionals, and institutions;
- establish personalized support plans.

To take these measures further, the Group has set up a solid global organizational structure in 19 countries (mainly in Europe but also in the Asia Pacific and Americas regions). It consists of a multidisciplinary task force mandated with building a strategic vision, supporting the roll-out and monitoring of action taken using appropriate monitoring indicators, and coordinating an international champions network in the countries who are responsible for rolling out the measures locally and reporting on them.

Developing initiatives in partnership with patient associations, healthcare professionals and institutions

Air Liquide’s healthcare teams work with patient communities on a daily basis to increase awareness of illnesses and treatments, share knowledge with patients and caregivers, promote self-care, and ultimately improve patients’ autonomy and quality of life.

These patient-centric initiatives focus on a variety of conditions such as diabetes, sleep apnea, Parkinson’s disease, and other respiratory diseases treated with oxygen and/or ventilation, and are being developed in partnership with organizations such as patient associations, healthcare institutions (hospitals and others), healthcare professionals, scientific bodies and universities.

In 2022, Air Liquide’s Home Healthcare entities developed 90 patient-centric initiatives in conjunction with 222 partners. Geographically, most initiatives in 2022 were rolled out in Europe.

- In Spain, VitalAire developed the Inspira 360 program in partnership with a patient association EPOC Espana and the scientific company Separ with the aim of improving treatment compliance and the quality of life of people with sleep apnea or chronic obstructive pulmonary disease. This program provides engaging and educational video content for patients and their caregivers using a dedicated application or the VitalAire website. All caregivers promote this content at home and within the “Punto Inspira” centers during each discussion with patients.
- In Portugal, the collaboration with two scientific companies APS (Portuguese Sleep Association) and SPP (Portuguese Pneumology Society), made it possible to design the VitalCare model, an omnichannel personalized support service for people with sleep apnea. Initiated in November 2021, a clinical study conducted with five hospitals aims to demonstrate the benefits of this model on treatment compliance, quality of life, and experience with therapy, compared to standard support.

- In Germany, VitalAire, has developed a clinical study of the closed-loop system (combining an insulin pump and a continuous glucose monitoring device) for type 1 diabetes patients in partnership with the Center of Excellence “Auf der Bult”, a specialized diabetes center for children in Hannover. The main goal of this initiative is to evaluate the improvement of quality of life of children with type 1 diabetes. The combination of technology and service could help to keep blood sugar levels at an acceptable level while reducing hypoglycemia and hyperglycemia events and also improving the quality of life of children with diabetes.
- In Brazil, Air Liquide Healthcare is working on an initiative aimed at increasing awareness of amyotrophic lateral sclerosis (ALS) and its treatments and improving the quality of life of ALS patients through greater patient knowledge and caregiver training. The initiative is being conducted in collaboration with the Paulo Gontijo Institute and the Associação Pró-Cura da ELA. Digital tools such as videos, articles and webinars have been made available to patients and caregivers. This educational material aims at giving patients and caregivers a better understanding of the condition and its treatment, especially the therapeutic use of mechanical ventilation. Ultimately patients could be more autonomous in managing their treatment.

Establishing personalized support plans

Personalized support plans mean that healthcare services are defined based on “what really matters” to patients, their health and their lifestyle, and on expected clinical and quality-of-life outcomes.

These personalized support plans are the foundation of a “Value-based Healthcare” approach, to adapt the service to the needs of the patient and improve the benefits for patients at the best cost for all.

Key indicator

As of December 31, 2022

Percentage of patients with personalized support plans (treatment adherence & outcome-based care)	49%
Number of patients with personalized support plans (treatment adherence & outcome-based care)	910,000

Air Liquide has developed two different levels of personalization:

- treatment adherence: the first level of personalization involves measuring the patient’s treatment adherence, collecting and analyzing patient data through the connected medical devices used by the patient, and then tailoring the services to the patient’s needs. This level of personalized health services is well developed in countries such as France and Spain for sleep apnea. The goal is to extend this level of personalization to various target countries and to the different diseases and therapies covered by the Healthcare businesses.

- patient benefit-oriented care. This corresponds to the second level of personalization and is designed to improve the patient’s clinical and quality-of-life outcomes. Understanding each patient individual characteristics (behavior and lifestyles, social environment) allows one to tailor healthcare service to their profile and define it based on expected clinical and quality-of-life outcomes.

Air Liquide has started implementing this value-based healthcare model in countries such as Spain and France, focusing on patients with sleep apnea and/or receiving ventilation treatment. The goal is to develop this level of personalization in other countries and for other therapies steadily.

Relationship with stakeholders

PIMA, IN SPAIN

PIMA was the first personalized program developed by Air Liquide's Home Healthcare teams for sleep apnea patients in Spain. Based on the principles of "value in healthcare", this program was awarded the "Value-Based Healthcare" Center Europe in 2020. Thanks to the introduction of a support plan tailored to each patient's profile, appropriate support at different stages of the patient's journey, and ongoing outcome measurement, patients have more autonomy in managing their treatment, greater adherence to their therapy, and quality of life. The next step in the PIMA program is to demonstrate that these clinical benefits have an impact on healthcare expenditures by reducing the costs associated with sleep apnea complications over a year.

b) Improving access to medical oxygen in low- and middle-income countries

Air Liquide intends to rely on its expertise in the supply of medical oxygen to increase access to oxygen for populations in low- and middle-income countries. The Group favours initiatives that are sustainable in the long term and respect strict ethical guidelines.

Respiratory infections, and pneumonia in particular, are the leading cause of death in children under five in developing economies. Acute phases can be treated with antibiotics and oxygen therapy.

In 2022, the Group's teams continued to facilitate access to oxygen:

Key indicator of oxygen access

Estimate of the population benefiting from easier access to oxygen through Air Liquide's "Access Oxygen" action

As of December 31, 2021

As of December 31, 2022

1,032,000

1,778,000

To this end, they have carried out or developed projects in Senegal, South Africa and Kenya:

ACCESS OXYGEN IN SENEGAL

Air Liquide launched the "Access Oxygen" initiative in Senegal in 2017, to contribute in particular to reducing infant mortality related to pneumonia. In 2020, an international organization for children asked Air Liquide to equip 87 rural health structures in three districts of Casamance and the center of the country and to train their workers. The contract was successfully concluded in August 2022, benefiting a population of more than 700,000 people. In addition, the health centers in Senegal benefiting from "Access Oxygen" have contributed to the country's response to the covid-19 pandemic.

PARTNERSHIP WITH UNJANI CLINICS IN SOUTH AFRICA

Unjani Clinics is a network of primary care clinics aimed at improving access to healthcare for middle-class South Africans in rural and suburban areas. This network also contributes to the national program for the emancipation of young black women. Unjani Clinics is collaborating with VitalAire South Africa, the Group's Health subsidiary, to extend the availability of medical oxygen to all clinics in the network, thanks to the "Access Oxygen" offer. VitalAire provides training and helps increase the skills of medical personnel working with oxygen therapy and related equipment. Air Liquide also provides part of the equipment financing through its subsidiary in South Africa. The 132 clinics of the Unjani network are now equipped with the Access Oxygen kit, which provides close access to oxygen to more than 700,000 people in the country.

More generally, improving access to medical oxygen in these countries is a priority. This need was acutely felt during the covid-19 crisis.

The Group has implemented an "Access Oxygen" program since 2017, to ensure that rural and suburban populations in low- and middle-income countries have safe, reliable and affordable access to oxygen over the long term.

To set up a medical oxygen supply infrastructure, Air Liquide relies on:

- Air Liquide teams, which support the deployment of the Access Oxygen solution;
- international donors or Group subsidiaries that finance the necessary equipment;
- local entrepreneurs who implement Access Oxygen in the beneficiary healthcare structures.

Access Oxygen offers an oxygen therapy kit, a training program for healthcare personnel with the provision of digital tools (Access Oxygen application – Oxygen Academy platform) and an equipment maintenance service.

At the end of 2022, to better structure its action and effectively support its partners, social entrepreneurs or international organizations, the Group set up a dedicated subsidiary, Access Oxygen SAS, a simplified joint stock company (Société Anonyme Simplifiée) under French law. It will contribute its know-how in the design and operation of adapted, safe, robust and sustainable oxygen solutions.

FIRST PILOT PROJECT DEPLOYED IN KENYA

In July 2022, the NGO Center for Public Health and Development, a partner of Access Oxygen in Kenya, received 20,000 US dollars from an international foundation to launch an initial pilot in the country with five healthcare facilities. The financing covers equipment and service costs for a period of six months. These five structures were deployed in September 2022 in the Bungoma region.

Thanks to the roll-out of this initial pilot, it is estimated that around 50,000 people in the region benefit from access to medical oxygen.

COLLECTIVE ACTION WITH THE INTERNATIONAL COMMUNITY

Air Liquide works with other players in the international community to support access to oxygen in low- and middle-income countries. Thus, Air Liquide is part of the “Every Breath Counts” coalition, which regularly brings together those involved in oxygen access (NGOs, lenders, manufacturers, service providers, etc.) and contributes to its work. Air Liquide also collaborates with the “Access to Medicine Foundation”, which has experience in strategies for access to healthcare products in the poorest countries.

5.3. FROM LISTENING TO ACTION

Since 2017, the Group has been directed toward a customer-centric transformation, boosted by a customer experience management tool called “Voice of Customer” (VoC). This solution allows all entities to regularly poll (through digital channels) an unlimited number of customers, analyze their comments in real time, identify dissatisfied customers, contact them again and take the necessary steps to address the reasons for their dissatisfaction. Thanks to the broad sharing of customer comments at every level of the Group, appropriate action plans have been identified and implemented to improve their experience. To date, VoC has already been rolled out in 60 Group subsidiaries worldwide.

The VoC survey is now available in two formats: an annual survey that covers all stages of the customer experience and a more frequent transactional survey that measures satisfaction at a particular stage: offer, order, delivery, invoicing, technical service, etc. Their feedback tells us that our customers particularly appreciate the quality and safety of our products and services, and the professionalism and efficiency of the teams in contact with them.

The annual survey also allows us to monitor two common KPIs at Group level, the NPS (Net Promoter Score®) and the ESG (Environmental, Social and Governance) score. The NPS measures customers’ intention to recommend using a simple question: “On a scale of 0 to 10, how likely are you to recommend Air Liquide as a supplier?” Since the launch of the VoC surveys, we have seen a steady improvement in this score across all business lines.

The ESG score is part of the Group’s commitment to a sustainable future: supporting our customers and patients, while taking into account the urgency of climate change and societal developments. With 50,000 responses collected, the ESG score reaches 8.65 points out of 10 in 2022, an improvement over the 2021 results (8.43 points). For industrial customers, this translates into the most ambitious targets in our sector to reduce the carbon intensity of our activities. In the health sector, the Group aims to improve the quality of life of patients while helping to make healthcare systems more efficient. The ESG score allows us to monitor the satisfaction of our customers and patients on these

aspects. For example, Industrial Merchant customers were asked about their satisfaction with Air Liquide’s contribution to their environmental objectives (reduction of the environmental footprint, CO₂ emissions, energy efficiency). Patients and healthcare professionals evaluated Air Liquide’s ethical, responsible and safety-conscious behavior.

In addition to the indicators described above related to the Voice of Customer, other indicators are used to improve the experience provided to our customers, in particular to smooth their pathway and reduce to zero all possible points of friction. It is recognized that the more fluid the experience, the lower the risk of the customer changing suppliers.

An excellent example is the “Customer Effort Score” used in our US operations, which consists of several indicators (up to 10 individual operational indicators) such as open orders, blocked invoices, late deliveries, litigation rate, etc. This indicator is not linked to a particular customer but relates to a geography or a business and is used to assess the quality of Air Liquide’s activities.

Managers use the indicator to easily identify the areas that create the most friction and the opportunities for improvement, so that they may act accordingly.

SUCCESSFUL CUSTOMER COMMITMENT



(a) Based on customer satisfaction survey feedback (92% in 2021).

Thanks to the feedback from our customers and patients collected via VoC, several actions have been implemented at both Group level and locally in the entities to improve their experience.

Thus, when Air Liquide France was notified by its customers of the difficulty in finding the right contact person, the “Single Number” project was launched: from more than 25 telephone numbers available to customers, the entity switched to a single number. The people in charge of customer calls respond directly to approximately 70% of their requests and forward the remaining, more complex requests to specialists for immediate processing. Another example of a project guided by customers’ voices is improving the invoicing process. Invoices have been digitized and simplified, dividing the number of possible rental ranges by four, facilitating administrative processing and payment. Customer service is one of the essential pillars of the customer experience. Air Liquide has decided to redeploy a training course that aims to solidify the fundamentals in all geographies, specifically targeting the Industrial Merchant teams. The 3C training makes it possible to frame in three actions – “Connect – Counsel – Conclude” – the 20 best behaviors to maintain when interacting with customers. This is an interactive training focused on concrete examples with many scenarios. It is provided internally by local “champions”. This approach not only allows us to promote the skills of our employees but also to ensure continuous and sustainable monitoring. The 3C training aims to improve the experience of our customers, but also of our employees by supporting them in working in a cooperative environment.

All these changes were implemented thanks to the commitment of our employees. To recognize employees who deliver exceptional customer experiences and the efforts made by both individuals and teams to serve and satisfy our customers and patients, specific awards, known as “Customer Mindset Awards”, have been created in several of our entities. These events demonstrate how much the customer experience is a vital element at Air Liquide and highlight behaviors that create added value for our customers.

6. Sustainable procurement and suppliers

Air Liquide strives to build long-lasting and balanced relationships with its suppliers in an environment of mutual trust. The Group attaches great importance to its suppliers' ability to offer long-term partnerships and ensure a high level of safety, reliability, competitiveness, and innovation, while guaranteeing that ethics and sustainable development are also taken into account. These principles are set out in the following documents:

- the **Sustainable Procurement procedure**, updated in 2019, which lays out the guidelines to be applied by the procurement departments to integrate ethical, social and environmental aspects into their procurement processes, and defines the prevention approach for related supplier risks;
- the **Procurement Code of Conduct**, available in 11 languages, is mandatory for all Group employees engaged in Procurement activities;
- the **Supplier Code of Conduct** available in 14 languages aims in particular to promote practices relating to human rights, the protection of the environment and safety and ensure compliance by all suppliers. This code is publicly available on the Air Liquide website (<https://www.airliquide.com/sustainable-development/sustainable-procurement>). It is based on the Group's Code of Conduct and all suppliers have to adhere to it / sign it;
- a **CSR commitment clause** (covering compliance with the Supplier's Code of Conduct, safety, and the environment) is included in the contract templates with suppliers, including those for framework agreements.

6.1. SUPPLIER MAPPING

As part of its monitoring process, the Group maps its Sustainability-Critical Suppliers, according to four main criteria:

- 1° annual spend;
- 2° the risk relating to the nature of the supplier's activity;
- 3° the risk relating to the supplier's country of operations; and
- 4° the supplier's dependency on Air Liquide.

In 2022, an evaluation and action plan campaign targeted 48% of the 1,177 suppliers identified as Sustainability-Critical Suppliers.

341 suppliers were assessed, an increase of 37% compared to 2021. 75 suppliers needing improvement or non-compliant have also prepared corrective action plans.

The actions carried out as part of this assessment campaign ensure that sustainability-critical suppliers have systems in place to avoid environmental, human rights, and labor risks from occurring in their supply chain. It also helps guide and support suppliers in their continuous improvement on these issues.

6.2. "PROCURE TO NEUTRALITY", THE CLIMATE ROADMAP FOR PROCUREMENT

In its new strategic plan ADVANCE for the 2022-2025 period, announced in March 2022, Air Liquide reaffirmed its ambition to achieving carbon neutrality by 2050. Procurement has a key role to play in supporting this objective throughout the supply chain of the Group's businesses, in particular:

- by supporting its suppliers in the decarbonization of the goods and services that the Group purchases;
- by helping to reduce the Group's emissions; and
- by contributing to the development of low-carbon solutions offered to its customers.

In 2021, the Group Procurement Department initiated a climate roadmap, "Procure to Neutrality" based on four pillars:

- **Measure:** improve the greenhouse gas emission calculation methodology (Scope 3), where relevant and feasible;
- **Engage** buyers, with the training of the procurement community; engage our suppliers identified based on the basis of a mapping as the most significant in terms of emissions;
- **Leverage to value** contributions of Procurement to reducing Air Liquide's Scopes 1, 2, and 3 emissions;
- **Reduce:** define an objective, with the aim to align with the Group's carbon neutrality ambitions.

In 2022, around 30% of the procurement community took part in training sessions on key concepts for understanding climate issues, carbon accounting methodologies and greenhouse gas emission reduction objectives. In addition, 75 suppliers, among those most exposed to risks related to greenhouse gas emissions, were asked to answer a dedicated questionnaire to evaluate their level of maturity in this area.

In June 2022, Air Liquide was awarded one of the two Gold Medals in the "Purchasing Team Challenge of the Year" category at the Trophées des Achats en France (<https://www.republikgroup-achats.fr/trophees-des-achats>) for the creation of a module integrating the assessment of suppliers' climate maturity and CO₂ emissions linked to manufacturing, transport and equipment use. This module is integrated into the selection criteria for suppliers of strategic equipment.

6.3. REDUCING OTHER ENVIRONMENTAL IMPACTS

The Group's Procurement organizations strive to support and develop actions to reduce the environmental impact of its activities. Numerous initiatives are led by the subsidiaries, such as waste reduction or the development of the circular economy. These initiatives are shared throughout the Group to encourage replication. A few examples:

Reverse Logistic project

Reverse logistics is a set of procedures and means for collecting and transporting post-consumer products to the industrial sector, such as the automotive, aeronautics, electronics or construction sectors for reuse by the suppliers themselves and/or in the raw materials chain.

Large amounts of energy are consumed when a new product is made from a raw material or through reverse logistics. Recycling products reduces the amount of energy required to produce these items.

One objective is to reduce the environmental impact by reusing raw materials in the manufacturing process of the products we purchase.

Brazil has developed and implemented this solution. The benefits were as follows: environmental (waste reduction, circular economy), financial (cost reduction and maximization of gains through negotiation with suppliers), and management (process centralization with better control and traceability).

Project Second Life

In Canada, a program has been developed and implemented to refurbish truck chassis used for logistics and the distribution of gas cylinders to customers. It allows the use of old chassis on new trucks, thus extending their total lifespan from 7 to 14 years. This results in not only cost savings, but also a reduction in Air Liquide's carbon footprint.

One of the objectives is to reduce the carbon footprint per truck by avoiding the waste of materials through renovating and reusing the chassis, rather than constructing new equipment.

An innovative project to recycle ALTOP cylinder protection plastics

Air Liquide launched its line of gas cylinder heads, known as "TOP," in the 1990s. These cylinder heads are called ALTOP, MINITOP, and SMARTOP. Most of these solutions include specific protective valve covers that have been manufactured in plastic for reasons related to the housing of the integrated valves, weight, cost and design. All of them are produced from the same material. Until now, the end-of-life of these objects did not meet Air Liquide's objectives in terms of consistency and sustainability.

In addition to the decision made to choose materials other than plastic for such applications (aluminum, steel), a unique recycling method has been devised by Air Liquide and developed with the partners concerned. This led to the validation of a virtuous process, allowing new MINITOP (latest plastic model) protective covers to be produced using plastic waste from ALTOP or MINITOP covers. In addition to the clear benefits of decarbonization, this process is economically viable.

6.4. PROCUREMENT RESILIENCE

The industrial world is simultaneously confronted with new, increasingly unpredictable and atypical crises of unprecedented magnitude (covid-19, political instabilities, wars, inflation, computer attacks, etc.). In this context, it is essential to strengthening the resilience of Air Liquide's supply chain. This resilience – an organization's ability to recover quickly from difficulties is essential to ensure the continuity of operations and deliveries to patients and customers.

With this in mind, Air Liquide Procurement has developed a streamlined and agile approach based on four essential capabilities to identify our vulnerabilities:

- Visibility (e.g. demand forecast);
- Agility (e.g. new suppliers qualification);

- Collaboration (e.g. work closely with Operations); and
- Control (e.g. supplier performance monitoring).

It is supported by a clear governance structure and data analysis tools.

Using this model and the associated tools, Air Liquide's Procurement organization can implement an action plan for each assessed risk. For example, to limit inflation risks, the Group uses contract cost structures, or to avoid equipment shortages, it develops a tool for forecasting demand and faced with geopolitical risks, it diversifies supply sources.

6.5. SUSTAINABLE PROCUREMENT TRAINING AND AWARENESS

Several measures have been implemented to raise awareness and train buyers in the Group's Sustainable Procurement process, thus strengthening its roll out within the organization. Sustainable Procurement training modules have been developed. They are aimed at Group's entire Purchasing population and for critical suppliers, and serve to:

- show the consistency between the Sustainable Procurement approach and the Group's strategy;
- explain the challenges of the Sustainable Procurement approach and position it as a source of value creation;
- present various tools to facilitate the roll-out of this approach.

In 2022, Air Liquide organized training sessions in French, English and Chinese to raise awareness among buyers and suppliers of the Group's Sustainable Procurement. Training courses are organized by subject and by geography.

A total of 279 buyers and 82 suppliers were trained in 2022 on topics related to sustainability and the duty of vigilance.

6.6. SUSTAINABLE PROCUREMENT FOR ALL

Since 2018, in France, Air Liquide has organized five annual editions of the "Inclusive Procurement Business Meeting" bringing together Air Liquide key players and companies in the disability sector (EA, ESAT, TIH) to promote socially inclusive procurement. In 2022, the "Inclusive Procurement Business Meeting", co-hosted with the Handeco association, was conducted in a digital and face-to-face format through presentations and speed meetings.

One particular angle was addressed during a round table on the subject of "Inclusive procurement, a gateway to employment". Through procurement, people working in organizations for the social and professional integration of disabled persons or adapted enterprises can be supported in the traditional business world, with adapted duties and workstations.

Nearly 100 people from Air Liquide and 10 suppliers from the disability sector took part in this event.

In addition, the European Inclusive Procurement Forum was organized for the second year in a row in 2022. During this forum, bringing together nearly 200 participants from operations, procurement and suppliers, experiences from France, Spain and the United Kingdom were shared to increase awareness and foster relationships with disability-inclusive companies.

7. Relations with civil society: fundamental research, access to employment, solidarity

7.1. THE WILL TO ACT FOR ALL

The Group is present in 73 countries ⁽¹⁾, because its production and distribution activities are local. Many years ago, long before defining its sustainable development strategy, the Group decided to act in the regions because it believes that it should participate in the economies of the countries in which it operates, and go further than the conduct of its activities. The Group, therefore, carries out various acts to support local populations. To do this, it has several means of action: its corporate Foundation, which spearheads its charitable actions, and its local subsidiaries or specific projects, such as Access Oxygen.

The common denominator of these actions in the regions is the Group's strong desire to involve its employees in projects permanently and to act in line with its culture. This culture combines a scientific spirit and innovation, a long-term vision, concern for performance and compassion. The Group focuses on the areas where it can provide real value, by leveraging its technical and scientific expertise, and which it considers appropriate. Most of the supported projects are thus linked either to science and industry or health.

In 2022, the Group, its employees and its Shareholders met these challenges, as you can discover in this section.

CITIZEN AT WORK PROGRAM

For many years and throughout the world, Air Liquide's employees have been involved in helping local communities, either during or outside their working hours, with the support of subsidiaries' management or the Foundation. To encourage this even further among its 67,100 employees, the Group has created the Citizen at Work program to give employees the means to act and increase its collective impact. This initiative, launched as a pilot scheme in 2022, provides subsidiaries with a framework to enable employees to volunteer in their local community. Depending on the country, a platform is made available to them to identify the projects in which to participate.

The program will be gradually rolled out across the entire Group to reach 100% of entities by 2025. At the end of 2022, 43% of Group employees already had access to this program. Each project identified as part of this new initiative is in line with Air Liquide's sustainability objectives and enables employees to get involved in areas such as professional integration, children's learning, environmental protection, health and social inclusion.

The Citizen at Work program is particularly effective when combined with the Foundation's financial support and modes of action. The Group was thus able to act quickly during the Ukraine crisis. The Citizen at Work program made it possible to devote time, to supervise and support employees wishing to help the refugees.

7.2. THE AIR LIQUIDE FOUNDATION

Created in 2008, the Air Liquide Corporate Foundation works with the Group to carry out missions of general interest. It relies on the Group's teams and skills to support projects of public interest, access to employment, scientific research, local solidarity or exceptional initiatives. The Foundation is subject to French law on foundations.

Projects are mainly in Europe; they may, however, be located outside Europe if it is to support populations in distress. The Foundation has also used its resources during social crises, such as covid-19 or the massive arrivals of refugees (from Ukraine this year).

The Foundation works in the general interest, within the framework defined by the law and its articles of association, in accordance with its purpose. It shall not serve the Group's commercial interests. Each project is clearly identified and the Foundation ensures that the allocated funds are properly used. It is governed by an <https://www.fondationairliquide.com/who-we-are/governance/ethical-charter>, published on its website.

The Foundation is financed by ALSA and ALSI (Air Liquide Santé International), and since 2022, it has also received donations from Air Liquide Shareholders and employees. More than 90% of the Foundation's budget is committed to projects, the balance going to operating expenses – in 2021 and 2022, this rate was 95%.

The Foundation has its own governance, under the aegis of its Board of Directors, on which representatives of Air Liquide, employees and "qualified persons" sit. It relies on two project selection and monitoring committees, the "Scientific Committee" and the "Regional Committee". One shareholder belonging to the Shareholders' Communication Committee (SCC) is a "Regional Committee" member.

In 2022, the Foundation supported 69 new non-profit or research projects, benefiting tens of thousands of people. These include:

4

new research projects, bringing the total number of research projects followed to 29

16

new employment access projects, including two multi-year partnerships

49

new solidarity projects, including 41 as part of the exceptional aid program for refugees from Ukraine

The 69 new projects signed in 2022, located in 10 countries, break down as follows: 30 in France; 16 in Poland; 2 in Romania; 8 in Ukraine; 7 in Germany; 2 in Austria; 1 Vietnam; 1 en Switzerland; 1 in Morocco.

Since its creation in 2008, the Fondation Air Liquide has supported nearly 550 projects with the Group in 52 countries. More information is available at <https://www.fondationairliquide.com/>.

⁽¹⁾ Excluding Russia, where the entities are in the process of being divested. They are no more consolidated following the loss of control on September 1st, 2022.

THE FOUNDATION'S FIELDS OF ACTION

Support fundamental research

Purpose	To develop knowledge about the respiratory system and, by extension, air quality, in order to: <ul style="list-style-type: none"> ■ protect the respiratory system against viral, bacterial or environmental attacks; ■ correct respiratory dysfunctions of genetic origin; ■ reduce the impact of atmospheric pollutants on health.
Projects supported	<ul style="list-style-type: none"> ■ fundamental research; ■ 2 to 3 year projects; ■ with potential for publication in quality medical or scientific journals.
Geographic scope	<ul style="list-style-type: none"> ■ Europe
Examples of projects	<p>Through its foundation, the Group is currently supporting 29 projects in 18 research institutions in France and Europe, including for example:</p> <ul style="list-style-type: none"> ■ team's research at the Catholic University of Leuven (KU Leuven) in Belgium on inflammation and pulmonary disorders induced by covid-19; ■ the research of two teams from the Université Libre de Bruxelles: <ul style="list-style-type: none"> – one is working on an alternative to the defective protein responsible for cystic fibrosis, – the other is quantifying ammonia emissions from agriculture and industry using satellite measurements (ammonia in the air is, at certain concentrations, dangerous for humans and the environment); ■ the research of two teams from the Vall d'Hebron University Hospital in Barcelona, Spain: <ul style="list-style-type: none"> – understanding the factors that promote the development of pulmonary fibrosis in patients with covid-19, – understanding the immune response induced by drugs prescribed after a transplant to improve the management of each patient. <p>In 2022, it was decided to support the work of:</p> <ul style="list-style-type: none"> ■ Grenoble Alpes University in association with Virpath in Lyon, on the impact of the sars-cov-2 virus on cellular metabolism; we already support these teams; ■ the University Hospital of Poitiers on a hypoxic cell model. Fondation Air Liquide is supporting them for the first time.
Mode of action	<ul style="list-style-type: none"> ■ a Group researcher assesses the project; then, once approved, he or she reports on the project's progress following regular updates with the fundamental research team, until the project is completed; ■ the Fondation Air Liquide's Scientific Committee selects the project. Then, the Fondation's Board of Directors approves a financial grant. Next, the Fondation releases the financial grant according to the progress report of the Group researcher-assessor.

A specific ethical clause is added to funding agreements with hospitals' research teams to avoid any conflict of interest with Air Liquide's business:

Considering that Air Liquide SA (ALSA) and Air Liquide Santé International (ALSI) are the founding members of the Fondation Air Liquide and that subsidiaries of ALSA or ALSI provide medical gases or homecare services, the undersigned, who are carrying out or supervising research that the Fondation Air Liquide funds, commit that:

- The financing from the Fondation Air Liquide will in no way influence their prescription policy or that of their team;
- They will not take part in any commission tasked with buying medical gases within five years of the last agreement signed with the Fondation Air Liquide.

Relationship with stakeholders

Promoting access to employment

Purpose	To promote access to employment for disadvantaged populations, by supporting innovative integration projects: <ul style="list-style-type: none"> ■ beneficiaries: young people and adults; ■ focus: technical jobs experiencing shortages.
Projects supported	<ul style="list-style-type: none"> ■ short (1 year) to medium term (3 years); ■ potential for project replication; ■ focus on employability at the end of projects; ■ acquisition of technical know-how; ■ learning about safety at work.
Geographic scope	<ul style="list-style-type: none"> ■ Europe; ■ developing economies.
Examples of projects	<p>In 2022, the Group supported 16 new professional integration projects. For example:</p> <ul style="list-style-type: none"> ■ In South Africa, the Group supported the digital training project of the Sci-Bono association. This two-year project involves 100 young people from very disadvantaged backgrounds in Johannesburg, at least 50% of whom are girls, to enable them to find work in the information technology sector (cyber risk analyst, network analyst and web developer). In 2021, a pilot with a class of 26 students validated the methodology; 96% obtained their training certificate and 81% found a job. Air Liquide's local teams are involved in the project through mentoring and training workshops. This project also received support from the Fondation Air Liquide. ■ In France, in 2022, the Foundation made a three-year commitment alongside the Apprentis d'Auteuil Foundation so that young people may follow a 17-month work-study technical training course enabling them to obtain certification as a thermal and sanitary fitter. Their work experience will take place in the hospital services activity of Air Liquide Santé France. Volunteer tutors among Air Liquide employees will support the young people throughout their training. ■ This new sector will be developed as part of the Apprentis d'Auteuil Skola program, which enables young people between the ages of 16 and 30 to find employment in recruiting professions. ■ The Air Liquide France Industrie site in Richemont is involved in the "Apprentis Solidaires" project run by the Association de la fondation étudiante pour la ville (Afev) in Metz. The young people were able to visit the site but also benefit from the support of the Human Resources teams in their career path by offering CV writing workshops and interview preparation. ■ For the Fédération Nationale des Écoles de Production (FNEP) project, Air Liquide helped to create a safety charter for all schools in the network. This action is in addition to the work done by the Sandouville and Carquefou sites to welcome students on-site and introduce them to the Group's business lines.
Mode of action (Europe)	<ul style="list-style-type: none"> ■ a Group employee assesses the project; once approved a Group employee will monitor the project until completion. If the project is multi-year, he or she will prepare progress reports. ■ the "Communities committee" of the Fondation Air Liquide selects the project and approves it if the financial endowment is less than €25,000. Then the Foundation's Board of Directors approves projects with a higher financial endowment. Next, the Foundation releases the financial grant according to the progress report of the Group employee. ■ the Group is often involved through one (or more) subsidiaries mentoring Air Liquide employees and familiarizing the beneficiaries with the corporate environment.
Mode of action (outside Europe)	The Fondation Air Liquide can be involved when it comes to helping populations in distress (see below). In the majority of cases, the project will be supported directly by a subsidiary of the Group, without the Foundation's involvement.

Act for local solidarity

Purpose	Support social projects in local authorities in which the Group operates, particularly in the areas of education, access to healthcare, disability and living spaces. The Group's network of employees makes it possible to identify needs and monitor the various projects led by local associations.
Projects supported	<ul style="list-style-type: none"> ■ innovative and short-term projects (1 year); ■ strong local impact.
Geographic scope	<ul style="list-style-type: none"> ■ Europe; ■ developing economies; ■ exceptionally, worldwide.
Examples of projects	In 2022, in addition to the exceptional action in favor of refugees from Ukraine, the Group supported eight new solidarity projects with its foundation, For examples: <ul style="list-style-type: none"> ■ In Vietnam, support for the non-governmental organization Anh Duong, which grants scholarships, under certain conditions, to very poor students in the province of Hau Giang to give them better access to education. ■ In France, the inclusive housing and workplace project for young people with autism and/or severe cognitive impairment: the "Envolée de la Chrysalide". It aims to support their professional integration in the restaurant industry. ■ In Spain (Catalonia), the Pueblo para Pueblo Foundation project, accompanies 20 people in vulnerable situations and/or at risk of poverty and social exclusion for two years as part of an initiative to support ecological urban agriculture. They will have access to a practical training program in agro-ecology, a cultivation plot in a collective vegetable garden, and a common living space place to live.
Mode of action	The Fondation Air Liquide can be involved in Europe or serving populations in need. The process followed is similar to that described in the table "Promoting access to employment". The Group encourages its employees to volunteer on these projects through the "Citizen at Work" program, which has been gradually being implemented in the subsidiaries since the beginning of 2022 (see the insert in section 7.1 above).

EXCEPTIONAL ACTIONS

In 2020 and 2021, the Group and, in particular, the foundation were strongly mobilized in the fight against the covid-19 pandemic.

In 2022, the Group and its European subsidiaries acted, with the Foundation, to help Ukrainian refugees. In March, Air Liquide launched an exceptional program with the support of its Foundation. The Group's European teams have identified dozens of projects, many of which have been selected and supported. The Group endowed the Foundation with a special budget of more than €1 million over two years. Air Liquide employees and shareholders also generously contributed more than €200,000 in donations to the Foundation.

It is estimated that more than 60,000 refugees in seven European countries have benefited from this action.

Purpose	To support NGO projects in the European Union, as close as possible to the needs of refugees.
Projects supported	<ul style="list-style-type: none"> ■ medical and psychological assistance; ■ emergency aid; ■ reception centers; ■ help with schooling and job search.
Examples of projects	In 2022, the following were supported: <ul style="list-style-type: none"> ■ 13 medical and psychological assistance projects (France, Poland, Switzerland, Germany, Ukraine); ■ 11 emergency aid projects (France, Poland, Germany, Ukraine); ■ 10 reception center projects (Poland, Austria, Germany, Romania, Ukraine); ■ 7 education and access to employment projects (Romania, France, Poland, Austria, Ukraine).
Mode of action	Similar to that described in the "Promoting access to employment" table above. The Group acts on the ground, as closely as possible to the beneficiaries, thanks to its local teams who support the associations in their projects and get involved to help beneficiaries, for example, by volunteering (tutoring, CV writing, language lessons, etc.). Volunteering missions were carried out on several projects as part of the "Citizen at Work" project.

Lastly, several Group subsidiaries in Europe and North America also made donations in favor of Ukrainian refugees, with a value equivalent to 227,000 euros.

Relationship with stakeholders

THE ROLE OF EMPLOYEES IN THE FOUNDATION

Employees play a major role within the Foundation. The very origin of the Fondation Air Liquide is based on the direct involvement of employees. This is still one of its distinctive characteristics today. First of all, Group employees participate in the governance of the Foundation (Board of Directors, Scientific Committee, Regional Committee). However, their involvement goes well beyond governance missions.

Employees can all propose projects to support. Each project is studied by a Manager who will then ensure the monitoring and final assessment.

In the specific case of scientific projects, the Group's medical experts, researchers at the Group's Research Center or the Group's doctors are involved. They assess and monitor scientific projects. For projects in the regions, support is provided by employees who work close to these projects.

Overall, organizations supported by the Foundation will be able to benefit from employees' professional skills. Regarding professional integration, the Foundation's partnership with local Air Liquide teams also means that young people without a network of contacts can visit sites, learn more about technical professions, take up internship offers or talk to sector professionals.

To date, hundreds of employees have been involved in these actions. Finally, many European employees are involved in projects to support Ukrainian refugees, notably through the "Citizen at Work" program.

"SHAREHOLDER" AND "EMPLOYEE" DONORS

Many Air Liquide shareholders and employees also provide financial support to the Group's societal action, through donations to the Fondation Air Liquide.

Following a first fundraising campaign in 2021, in March 2022, the Foundation invited them to join the Group's action for the benefit of Ukrainian refugees in Europe through a donation platform.

Shareholders and employees generously responded to this appeal, contributing more than 200,000 euros, which was used for the first projects in spring 2022.

The possibility for shareholders and employees of a company to financially support the social action of their company, through donations to their company's Foundation, is set out in and governed by French law. Donations give rise to a tax receipt, under the conditions provided for by law.

Donors are regularly informed of the use of their donations and the progress of the projects supported.

7.3. OTHER PROGRAMS CARRIED OUT BY SUBSIDIARIES

The Group's various subsidiaries also work directly and independently with their local communities. Some examples of initiatives carried out in 2022.

Airgas is the Group's Industrial Merchant subsidiary in the United States. With nearly 1,400 sites, this subsidiary has a strong presence throughout the country. It is strongly committed to local communities.

Welding is essential to many industries and plays a decisive role in supporting the industries of today and tomorrow. It is also an activity strongly correlated with the industrial gases business. Airgas has therefore been running an educational initiative, "Airgas' High School Welding", since 2018 to support welding programs. These schools offer students between the ages of 15 and 18 the opportunity to learn and prepare for a future career. Young people learn to weld and to understand the importance of safety, reliability and teamwork. Airgas provides financial support and provides all the tools they need to carry out their training: consumables for welding, safety and other equipment, as well as mentoring by local Airgas employees who contribute with their time and expertise in support of the schools.

In 2022, Airgas supported 16 new schools across the United States, and renewed support for 20 schools. In recent years, the welding training program has positively impacted more than 450 teachers and 4,200 students.

In South Korea, Air Liquide Korea launched a mentoring program in partnership with the JUMP association, a local non-profit association whose purpose is to combat educational inequalities. Around 15 Air Liquide Korea employees have agreed to become mentors. 15 students and 62 teenagers benefited from 23 individual or group sessions, i.e. more than 2,600 hours of sharing. This is an experience that brought significant benefits to young people, but also to employees, whose satisfaction was measured at 4.5/5.

In China, the Air Liquide China subsidiary is also involved in civil society and contributes to several projects. In 2022, for example, it financed the "Shanghai Young Bakers" association to train young people aged 17-23 from disadvantaged regions of China for one year. This French bakery training will enable them to find a job and lead an independent life. The subsidiary also made a donation to the "SEE Foundation for protecting Shanghai Chongming Dongtan National Nature Reserve" and organized beach cleaning and plastic bottle collection days with volunteer employees. In the health field, it also offered a large amount of protective equipment (masks, protective clothing, disinfectants, etc.) for volunteers and children in makeshift hospitals to fight against the covid-19 pandemic.

7.4. THE ACCESS OXYGEN PROGRAM

Deployed by Air Liquide since 2017, Access Oxygen is an innovative oxygen therapy solution adapted to the rural health structures in these countries. This program is part of the Air Liquide Group's sustainable development objectives announced in 2021. For more information, please refer to section 5.2.4 Societal initiatives in healthcare (b).

8. Relations with the public sphere

Air Liquide actively contributes to the discussions, consultations and work of public authorities as well as with professional associations, Think Tanks and NGOs (non-governmental organizations), in the Group's areas of expertise.

Air Liquide has produced and published in 2021 a Public Affairs Charter completed in 2022 and governing the Group's interactions with public authorities at the national, regional/European and international level in order to stay ahead of risks related to regulatory changes, identify growth opportunities, and involve Air Liquide in the public debate on sectors in which the Group has a legitimate interest.

This policy specifies that the Group will work with stakeholders in a constructive and transparent manner, following ethical rules and respecting political neutrality. All action is conducted in accordance with guidelines on interest representation.

Accordingly, Air Liquide is listed (voluntarily since 2011) in the "Transparency Register" of European institutions, in the French "Interest Representatives" register, created in 2017 and managed by the High Authority of Transparency in Public Life (*Haute Autorité pour la Transparence de la Vie Publique* – HATVP), and in the Lobbying Disclosure Act database of the U.S. House of Representatives.

Working within the European and International Affairs Department, the team, in conjunction with the various geographical operating entities and the Group's Business Lines, covers the following sectors: energy/hydrogen transition, circular economy, innovation, technologies, digital and health.

- the energy transition and the environment by contributing to the development of clean energy efficiency and alternative energy vectors (hydrogen, biogas, solar and wind power, etc.), and their applications, especially in terms of industrial decarbonization and mobility; the energy and carbon markets, with regulatory changes and development of markets in Europe, the Americas, Asia Pacific, the Middle East and Africa;
- public health, with the development of innovative solutions to meet major health and socio-demographic challenges (aging of the population, increase in the prevalence of chronic diseases, pandemics, increase in demand for healthcare in developing countries). Air Liquide operates in the fields of home healthcare, the supply of medical gases for healthcare facilities, and is involved in the various healthcare ecosystems to increase the value of the care provided to patients;
- opportunities and risks related to the digitalization of the economy, and geopolitical risks related to cybersecurity;

- the defense of Air Liquide's shareholding model;
- the contribution of technologies, particularly to space and space exploration in Europe, quantum technology, electronics and semiconductors, among others;
- environmental and societal reporting challenges.

The European and International Affairs Department coordinates a network of some 20 "Public Affairs" managers in the Group's main countries of operation. The task of these managers is to monitor public initiatives liable to impact the Group, and to arrange interactions with local and/or regional authorities to defend Air Liquide's interests or promote our climate and healthcare system solutions. This network allows the Group to work on the consistency of the positions expressed on cross-functional issues such as the energy transition, the circular economy, health and innovation in the various parts of the world.

It should also be noted that the Group ensures it maintains a good relationship with its respective local tax authorities and is committed to paying taxes in all its countries of operation.

Air Liquide's Public Affairs policy also aims to establish and develop constructive and sustainable relationships, in Air Liquide's various sectors of operation, with:

- public authorities;
- professional bodies which represent the Group's industry sectors;
- other actors such as NGOs and think tanks.

These interactions can take place either directly or through professional bodies such as the World Hydrogen Council, the European Industrial Gases Association (EIGA), the European Round Table of Industrialists (ERT) and France Hydrogène. Air Liquide asks all its professional organizations to explicitly support the objectives of the Paris Agreement.

In December 2021, Air Liquide published its Public Affairs Charter on its website. It can be viewed at: <https://www.airliquide.com/investors/documents-presentations>.

In 2022, Air Liquide has also carried out a review of the main professional organizations of which it is a member in France, in Europe and in the United States, including analyses and assessments of the alignment of their positions with the Group's decarbonization objectives, as well as their commitment to supporting the Paris Agreement. This review and the review process are available on the website: <https://www.airliquide.com/sustainable-development/engagement-public-stakeholders>.

Relationship with stakeholders

Public projects or events in which the Group participated in 2022 include:

- In France:

- the France 2030 plan, launched in October 2021 by the President of the French Republic, aims to be the answer to the major challenges for the coming years, in particular the ecological transition, through a massive investment plan from which the future technological champions will emerge and which will support transitions in our sectors of excellence. This plan has identified 10 objectives that are at the heart of Air Liquide's business activities, such as green hydrogen, decarbonization of industry, low-carbon aircraft, tomorrow's medical devices and the pursuit of efforts in space. In order to steer the roll-out and execution of France 2030, the General Secretariat for Investment (SGPI), headed by Bruno Bonnell under the authority of the Prime Minister, was appointed as the body responsible for achieving the objectives set. In order to ensure these objectives are fully met, the SGPI set up Ministerial Steering Committees in 2022, to which Ambassadors were appointed to ensure the relevance of the actions. In this respect, Benoît Potier, Chairman of the Board of Directors of Air Liquide, was appointed Ambassador to the "Decarbonization and hydrogen" ministerial steering committee,

- the transformation of its home healthcare delivery model, to create collaborative approaches that will significantly improve patient benefits, by connecting all stakeholders in the care pathway. In doing so, Air Liquide takes part in debates relating to the management of pathologies at home, for example, by contributing to the production of qualitative data on the management of diabetes at home, providing its support to the General Conference on Respiratory Health or contributing to the latest report of the Institut Montaigne on the Shift to Outpatient Care;

- In Europe:

- the European Commission's public consultations,
- contributions to the various industrial alliances initiated by the European Commission (hydrogen, aeronautics, space, semiconductors, biogas) and to the Commission's group of experts on policies and programs relevant to the EU's space, defense and aeronautics industry,
- calls for tenders issued by France's Innovation Fund and major projects of common European interest,
- support for the initiatives of the International Diabetes Forum on the occasion of World Diabetes Day. Through the various events organized by the association, Air Liquide wishes to promote awareness at the European level of the issues related to the disease and encourage the mobilization of the Union's Member States to improve its management.

ANNUAL REPORTING

1. Safety indicators

SAFETY INDICATORS FOR THE ENTIRE GROUP

	2013	2014	2015	2016	2017	2018	2019 ^(f)	2020	2021	2022
Number of Group employee and temporary workers lost-time accidents of at least one day ^(a)	151	144	152	137	198	161	158	108	138	123 *
Accident frequency of Group employees and temporary workers ^(b)	1.6	1.6	1.6	1.4	1.6	1.3	1.2	0.9	1.1	0.9 *
Accident severity rate ^(c)	<0.1	<0.1	<0.1	<0.1	<0.1	0.17	<0.1	0.12	<0.1	<0.1
Number of accidents of subcontractors ^{(d)(e)}	110	92	94	91	90	93	109	67	83	73 *
Frequency of accidents of subcontractors	2.2	2.3	2.2	2.0	2.1	2.2	2.4	1.4	1.6	1.5
Frequency rate of serious avoidable accidents involving injuries (in millions of km traveled)	–	–	–	–	0.013	0.030	0.022	0.019	0.021	0.023

(a) Fatal work accidents since 2015: none in 2022, none in 2021, two in 2020, none in 2019, three in 2018, none in 2017, one in 2016, none in 2015.

(b) Number of accidents with at least one day's absence from work per million hours worked, involving Group employees and temporary workers. Accidents defined in accordance with the International Labor Office recommendation. Hours worked are defined according to local labor regulations.

(c) Average number of days off work per thousand hours worked. Accidents defined according to the International Labour Office recommendation.

(d) Employees working under a contract with Air Liquide, on a Group site, or on a customer site, or as drivers of a delivery vehicle.

(e) Fatal work accidents since 2015: one in 2022, four in 2021, one in 2020, two in 2019, five in 2018, none in 2017, one road accident in 2016, one road accident in 2015.

(f) With Airgas, the data for the previous years concerns Air Liquide exclusively.

* Indicator verified by the independent verifier.

In 2022, the frequency rate of work-related accidents with lost time for Air Liquide employees and temporary workers decreased to 0.9 at the end of 2022, compared to 1.1 at the end of 2021. Continued awareness and implementation of prevention actions will further improve safety and significantly and sustainably reduce this lost time accident frequency rate.

In 2022, the Group recorded the death of one subcontractor on the road.

The Group has made and will continue to make every effort to analyze all accidents that have occurred in order to learn from them and thus prevent them from happening again.

2. Environmental indicators

2.1. LIST OF PRODUCTION UNITS AND THEIR ENVIRONMENTAL FOOTPRINT

The environmental indicators that are most representative of the Group's activities and part of Air Liquide's Sustainable Development reporting are described below. They cover a total of 657 Air Liquide production units worldwide.

Type of production units	Number of production units	Applications and environmental footprint
Large Air Separation Units (ASUs)	424	Large Air Separation Units produce oxygen, nitrogen and argon, with some sites also producing rare gases such as krypton and xenon. These plants "without chimneys" do not use any combustion processes. They are particularly environmentally friendly, as they emit no CO ₂ , sulfur oxide (SO _x), or nitrogen oxide (NO _x). They use electricity almost exclusively: worldwide they use around 4,800 MW equivalent at any given moment. The electricity purchased from our energy suppliers and consumed by the Air Separation Units is the source of indirect emissions (Scope 2). The cooling systems of these units require back-up water.
Hydrogen and carbon monoxide units (HyCO)	62	Large hydrogen and carbon monoxide production units also produce steam for some customers. The raw material used is primarily natural gas and a quantity of water required for the reaction that produces hydrogen. Carbon monoxide is an essential raw material in the chemical industry for producing plastics. The desulfurization of hydrocarbons to produce fuels with reduced sulfur content is one of the main applications of hydrogen. These units emit CO ₂ and nitrogen oxides (NO _x), but virtually no sulfur oxides (SO _x). They also consume electricity and their cooling circuits require back-up water.
Cogeneration units	16	Cogeneration units produce steam and electricity simultaneously. They consume natural gas and water, mostly converted into steam and supplied to customers. The steam can be condensed at these customers' facilities and then reused in the cogeneration unit. In most cases, the electricity produced is supplied to the local electricity distribution network, which in some countries can be used to power the Group's other units. Combustion of natural gas produces CO ₂ and leads to low nitrogen oxide (NO _x) emissions, but virtually no sulfur oxide (SO _x) emissions.
Acetylene units	53	These units produce acetylene, a gas primarily used in metal welding and cutting. 50 of these units produce this gas through the decomposition of a solid (calcium carbide) using water. Two units fill cylinders with this gas, which is supplied by another industrial company. This process produces lime, at least 90% of which tends to be recycled in industrial and agricultural applications.
Nitrous oxide units	11	Nitrous oxide is used primarily as an anesthetic gas in the healthcare sector and as a sweetening agent in the food industry. It is produced from ammonium nitrate in solid form or as a water-based solution.
Carbon dioxide liquefaction and purification units	61	These units liquefy and purify carbon dioxide, which has many industrial applications, especially in the food industry, where it is used to deep-freeze foods or produce carbonated beverages. Carbon dioxide is most often a by-product of chemical units operated by other manufacturers. In certain cases, it is found naturally in underground deposits. In other cases, it comes from the Group's hydrogen and carbon monoxide units. It is purified and liquefied in Air Liquide units consuming electricity and cooling water. Carbon dioxide is thus reused for other industrial applications instead of being emitted directly into the atmosphere.
Production units for Specialty Ingredients business	5	These production units for Specialty Ingredients business are located in France, China and United-States and belong to Seppic (Specialty Ingredients business). These units consume natural gas, electricity and water. Combustion of natural gas produces small amounts of CO ₂ .
Engineering & Construction units	3	Units for the Engineering & Construction business taken into account in this reporting are located at five sites in France, China and the United Arab Emirates. They are mainly used for the construction of air separation columns and cryogenic tanks.
Biogas units	22	These units process waste to produce biogas, a renewable energy source. Biogas is produced during the methanization of biomass: household waste, industrial and agricultural waste and sewage sludge. Air Liquide is aware of the potential of this process in terms of the energy transition and is therefore working on global solutions dedicated to the valorization of biogas and which meet the needs of farmers, waste treatment managers and the agro-industry.

Air Liquide's production facilities operate based on a commitment to safety, environmental protection and reliability that is established in the Group's Industrial Management System (IMS). In addition, a percentage of these production facilities are certified under the following ISO standards: ISO 9001 for quality management system for products and services, ISO 14001 for the management of environmental impacts and environmental performance and ISO 45001 for the management of employee safety and working conditions.

2022 Certifications	ISO 9001	ISO 14001	ISO 50001
% production facilities	64 %	23 %	15 %

2.2. SUMMARY OF THE GROUP'S GREENHOUSE GAS EMISSIONS

2.2.1. Scopes 1 and 2

	2018	2019	2020	2021	2022
Scope 1: total direct greenhouse gas emissions (GHG) (in thousands of tonnes of CO ₂ -eq.) ^(a)	16,082	16,239	15,345	15,536	16,273 *
Scope 2: total indirect GHG (in thousands of tonnes of CO ₂ -eq.) ^(b)	16,976	16,927	17,184	20,829	23,033 *
TOTAL emissions as reported (in thousands of tonnes of CO₂-eq.)	33,058	33,166	32,529	36,364	39,306 ^{(c) *}
TOTAL restated emissions (in thousands of tonnes of CO₂-eq.)^(d)			39,564	40,085	39,464

(a) (b) & (c) Actual Group emissions taking into account significant perimeter changes (upwards and downwards) having an impact on CO₂ emissions during the year as of their effective date.

(a) Reporting taking into account a minimum of 95% of the Group's emissions. The methodology and reporting of excluded sources are subject to a continuous improvement process.

(b) Total of indirect GHG emissions generated by the production of electricity and steam purchased outside the Group. Emissions are reported using the "Market Based" methodology.

(c) Corresponding emissions using "Location Based" methodology are 38,330 thousand tonnes of CO₂-eq.

(d) Emissions are reported using the "market-based" methodology, restated, from 2020 and each subsequent year, to include the emissions of the assets for the full year, taking into account (upwards and downwards) changes in scope having a significant impact on CO₂ emissions.

* Indicator verified by the independent verifier.

As reported emissions by hub ^(a)	Scope 1	Scope 2
Europe (in thousands of tonnes of CO ₂ -eq.)	5,334	3,695
Americas (in thousands of tonnes of CO ₂ -eq.)	8,072	2,568
Asia Pacific (in thousands of tonnes of CO ₂ -eq.)	1,138	8,880
Middle-east & Africa (in thousands of tonnes of CO ₂ -eq.)	1,729	7,890
TOTAL (in thousands of tonnes of CO₂-eq.)	16,273	23,033

(a) Actual hubs emissions taking into account changes in the perimeter as of the effective date.

The Group's direct emissions (Scope 1) increases from 15.5 million tonnes of CO₂-equivalent in 2021, to 16.3 million tonnes reflecting the integration of the TotalEnergies hydrogen production unit in Gonfreville, France as of June 15, 2022, and an increased use of cogeneration units due to the energy context.

The Group's indirect emissions reported (Scope 2) increased from 20.8 million tonnes of CO₂-equivalent in 2021, to 23 million tonnes in 2022, an increase of 10%. This variation is also due to the inclusion of new assets in the scope, in particular the assets acquired from Sasol, which were integrated into the CO₂ emissions reporting scope on June 24, 2021, which impacted the full year in 2022. The corresponding emissions will be reduced in the future thanks to an ambitious plan to procure renewable electricity. As demonstrated by the 220 MW long-term contract of renewable power signed by Air Liquide and Sasol with Enel Green Power, this plan is being concretely implemented.

More than 80% of the Group's direct emissions in Europe and America due to cogeneration units and hydrogen production capacity.

Indirect emissions are related to installed capacity in various regions and to the local power generation mix. The amount of coal-based power generation in Asia and South Africa explains the relative importance of Scope 2 emissions in these geographies, which represent more than 70% of the Group's indirect emissions.

On a comparable basis, it is important to note that the Group's emissions have remained stable for the second consecutive year, while activity is growing strongly.

Annual reporting

2.2.2. Scope 3

Scope 3 emissions correspond to Air Liquide's indirect emissions from its value chain (outside of Scope 2 emissions) and are separated into 15 different categories that can be split between the upstream and the downstream of the value chain.

Scope 3 categories ^(a)	2021 (in thousands of tonnes CO ₂ -eq.)	2022 (in thousands of tonnes CO ₂ -eq.)
1 – Purchased goods and services	3,286	3,161 *
2 – Capital goods (b)	523	1,035 *
3 – Energy (not included Scope 1 or 2)	7,591	8,749 *
4 – Upstream transportation and distribution	83	541 *
6 – Business travel	30	49 *
7 – Employee commuting	70	73 *
9 – Downstream transportation (c)	358	Not relevant ^(c)
11 – Use of sold products (d)	9,236	7,282 *
13 – Downstream leased assets	1,070	1,244 *
TOTAL SCOPE 3 EMISSIONS (in thousands of tonnes of CO ₂ -eq.)	22,247	22,134 *

(a) See methodology page 427.

(b) The variation between 2021 and 2022 is due to a better allocation of purchasing categories between categories 1 and 2 of Scope 3

(c) These emissions were previously reported by Air Liquide in Scope 1 up to 2020, in category 9 in 2021 and will be reported in category 4 from 2022 to better align with the GHG Protocol.

(d) From 2022 onwards, these emissions also include downstream emissions related to acetylene sales and residual natural gas sales at refueling stations not yet fully converted to biomethane. In addition, emissions related to sales of biogenic CO₂ are no longer included in the total; they represent 0.5 MtCO₂-eq.

* Indicator verified by the independent verifier.

The Group's Scope 3 emissions are mainly related to energy (category 3) as well as the use of products sold, especially CO₂ and N₂O. The Energy category increase in 2022 is due to an increase in the Group's energy consumption during the year and to the impact of the assets acquired from Sasol and including the CO₂ emissions reporting scope on June 24, 2021, which will be taking into account for the full year in 2022. In category 11, the addition of emissions related to acetylene sales and residual natural gas sales at refueling stations not yet fully converted to biomethane leads to a marginal increase, which is far more compensated by two effects: on the one hand, the withdrawal of emissions related to biogenic CO₂ sales and, on the other hand, the implementation of methodologies allowing to take into account more precisely the part of the products sold that is actually re-emitted during their use by customers.

In total, Scope 3 emissions are nonetheless slightly down, despite significant growth in sales.

2.2.3. Reporting of emissions avoided

	2018	2019	2020	2021	2022
Emissions avoided due to the optimization of our assets (in millions of tonnes)	4.6	4.6	3.6	3.3	3.2
Emissions avoided to improve our customers' energy footprint (in millions of tonnes)	11.0	12.2	11.2	11.8	10.1
TOTAL AVOIDED EMISSIONS (in millions of tonnes) ^(a)	15.6	16.8	14.8	15.1	13.3 *
Emissions avoided due to the use of hydrogen for fuels desulfurization (in millions of tonnes)				64.2	64.1
TOTAL AVOIDED EMISSIONS INCLUDING END USES (in millions of tonnes)				79.3	77.4

(a) These avoided emissions cover only the avoided emissions directly attributable to the optimization of Air Liquide's assets and to the use of Air Liquide's solutions by its direct customers. They do not include avoided emissions induced at the level of end-use.

* Indicator verified by the independent verifier.

Emissions reductions to the Group's customers have decreased compared to 2021, mainly due to a decrease in oxygen supply for oxy-combustion in certain markets in the steel industry.

Based on other methodological approaches that consider the reduction of black carbon emissions through the use of ultra-low sulfur fuels, and by attributing these avoided emissions to the hydrogen used for desulfurization in refineries, Air Liquide's avoided emissions amount to 77.4 Mt CO₂ (see Reporting methodology page 434).

2.2.4. Scopes calculation methodology

Scope 1

The majority of Air Liquide's Scope 1 emissions are from its hydrogen production and cogeneration units. Scope 1 emissions are the difference in carbon content between the natural gas consumed by these units and the carbon content of their products. Air Liquide also records direct emissions from the combustion of fuel in its truck fleet, as well as gas losses from its CO₂ and nitrous oxide production units.

Scope 2

Air Liquide now accounts for its Scope 2 emissions on a "market basis." Since 2021 the Group has improved the way it accounts for indirect emissions from electricity and steam purchases by moving from a "location-based" approach based on the average emissions intensity of the national grid to a much more precise and specific approach known as the "market-based" method, linked directly to supply contracts. In the absence of contractual information, when all or part of a site's electricity supply comes from the grid, a residual emission factor is used, in accordance with best practices. In the absence of reliable data on the residual mix, the grid emission factor is used, the

latter accounting for approximately 40% of emissions. By using this method, the Group is adopting the Scope 2 emissions accounting method recommended by the GHG Protocol. The Group's electricity procurement initiatives, particularly those to voluntarily procure renewable electricity, are now directly reflected in the reported Scope 2 emissions figures.

Scope 3

Categories	Scope	Methodology
1 – Purchase goods and services	Products purchased from a third party corresponding to operating expenses	Spend-based methodology Emissions are estimated from the volumes of purchased products (€) multiplied by emission factors provided by the ADEME and CEDA databases.
2 – Capital goods	Products purchased from a third party corresponding to investment expenses	Spend-based methodology The volumes of purchased products (€) are multiplied by emission factors provided by the ADEME and CEDA databases.
3 – Energy (not included in Scope 1 or 2)	Purchases of energy, steam and fuel	Average-based methodology The volumes purchased (GJ) are multiplied by upstream emission factors (Well-to-Tank) supplied on a per-country and per-fuel type basis by UK Government and World Data Bank databases.
4 – Upstream transportation and distribution	Upstream land, air, sea transport and other miscellaneous costs and distribution	Hybrid methodology <ul style="list-style-type: none"> ■ emissions related to upstream transportation are calculated based on a spend-based methodology and are estimated on the basis of contracted transport and distribution services (€) multiplied by emission factors provided by the ADEME and CEDA databases ■ emissions related to the downstream transportation and distribution of its products previously reported in its Scope 1 are now partly reported in Scope 3 with respect to the transportation portion subcontracted to third parties.
5 – Waste	Not reported	Emissions in this category have been estimated using an average-based methodology and account for less than 1% of Scope 3. This category is therefore not considered relevant.
6 – Business travel	Air and rail transportation, car rental, hotels & restaurants, other travel expenses	Hybrid methodology <ul style="list-style-type: none"> ■ air transportation: airline reporting; ■ car rental: average-data methodology based on distance traveled; ■ other services: spend-based methodology similar to categories 1, 2 and 4.
7 – Employee commuting	Employee journeys	Average-based methodology Estimate based on number of employees and an average transportation distance of 25 km per day by car (conservative assumption).
8 – Upstream leased assets	Not reported	Air Liquide has no leased assets not included in its Scope 1 or 2 reporting.
9 – Downstream transportation	Not reported	Emissions related to downstream transport and distribution services for its products, previously reported in its Scope 1, are now partly reported in Scope 3 for the portion of transport outsourced to third parties.
10 – Processing of sold products	Not reported	Emissions from the processing of products sold by Air Liquide represent a relevant category for its Scope 3 reporting. However, no standardized emissions reporting methodology is available for industrial gas companies, which serve a wide variety of markets. Air Liquide has initiated work with industry players to define joint standards and report these emissions in future.
11 – Use of sold products	Sales of greenhouse gases and gases used as fuel	Emissions related to the use of products sold, including sales of products also recognized as greenhouse gases, for which the volumes, adjusted according to the use made of the products, are multiplied by the global warming potential of each gas (GWP), as well as downstream emissions related to sales of acetylene and residual sales of natural gas at refill stations not yet fully converted to biomethane.
12 – End-of-life treatment of sold products	Not reported	Emissions in this category have been estimated using an average-based methodology and account for less than 1% of Scope 3. This category is therefore not considered relevant.
13 – Downstream leased assets	Air Separation Units managed by an industrial platform	Hybrid methodology <ul style="list-style-type: none"> ■ If energy consumption data for the unit is available, it is used, in the same way as for Scope 2 reporting; ■ If not, an estimate of the annual energy consumption is made according to the unit's production capacities and load factor.
14 – Franchises	Not reported	Air Liquide has no franchises.
15 – Investments	Not reported	Emissions in this category have been estimated using an average-based methodology and account for less than 1% of Scope 3. This category is therefore not considered relevant.

2.3. ENVIRONMENTAL FOOTPRINT OF TRANSPORTATION

TRANSPORTATION: INDUSTRIAL MERCHANT BUSINESS

	2018	2019	2020	2021	2022
Kilometers traveled by all vehicles delivering gas in liquid or cylinder form (in millions of km)	601	596	559	593	590 *
Estimate of CO ₂ emissions generated by these vehicles in the Industrial Merchant business (in thousands of tonnes)	666	660	483	572	590 *
Change in distance traveled per tonne of liquid industrial gas delivered (oxygen, nitrogen, argon, carbon dioxide) ^(a) (truck delivery)	101.7	98.1	97.6	98.3	99.0
Estimate of truck transportation kilometers avoided through on-site customer units (in millions of km)	-58	-56	-103	-106	-146
Estimate of CO ₂ emissions avoided by these on-site customer units (in thousands of tonnes)	-59	-56	-104	-107	-155
Percentage of deliveries of air gases and hydrogen via pipeline or on-site	85%	85%	85%	86%	87%

(a) In kilometers per tonne delivered for the Industrial Merchant business. 2015 base of 100.

* Indicator verified by the independent verifier.

TRANSPORTATION: HEALTHCARE BUSINESS

	2018	2019	2020	2021	2022
Transportation: Home Healthcare business					
Kilometers traveled (in millions of km)	181	187	173	148	148
Associated CO ₂ emissions (in thousands of tonnes)	35	34	30	29	28
Transportation: Medical Gases business					
Kilometers traveled (in millions of km)	33	32	33	24	23
Associated CO ₂ emissions (in thousands of tonnes)	30	29	30	26	25
TOTAL KILOMETERS TRAVELED HEALTHCARE BUSINESS					
(in millions of km)	214	219	206	172	171
TOTAL ASSOCIATED CO₂ EMISSIONS (in thousands of tonnes)					
	65	63	60	55	53

2.4. THE GROUP'S CLIMATE OBJECTIVES AND INDICATORS FOR THE MANAGEMENT OF ITS ASSETS

	2016	2017	2018	2019	2020	2021	2022
Objective 1: Reduce emissions in absolute value by -33% by 2035 vs 2020							
CO ₂ emissions, as reported ^(a) (in thousands of tonnes of CO ₂ -eq.)	29,363	30,867	33,058	33,166	32,529	36,364	39,306
CO ₂ Emissions, restated ^(b) (in thousands of tonnes of CO ₂ -eq.)					39,564	40,085	39,464
Performance: restated CO ₂ emissions vs. 2020						1.3 %	-0.3%

(a) Emissions are reported using the "market-based" methodology and taking into account significant perimeter changes (upwards and downwards) as of their effective date.

(b) Emissions are reported using the "market-based" methodology, restated, from 2020 and each subsequent year, to include the emissions of the assets for the full year, taking into account (upwards and downwards) changes in scope having a significant impact on CO₂ emissions. Thus, the change in restated emissions reflects the actual change in the Group's emissions on a equivalent perimeter.

The Group's total CO₂-equivalent emissions, compared to the restated 2020 baseline, remained stable for the second consecutive year (-0.3% compared to 2020), despite the strong growth in Group's activity. This reflects the strong commitment by the Group to manage its CO₂ trajectory and the associated actions which are under deployment.

	2015	2016	2017	2018	2019	2020	2021	2022
Objective 2: Reduce Carbon Intensity by -30% by 2025 vs 2015								
CO ₂ emissions, as reported ^(a) (in thousands of tonnes of CO ₂ -eq.)	29,414	29,363	30,867	33,058	33,166	32,529	36,364	39,306
Carbon intensity ^(b)	7.3	6.5	6.0	5.8	5.5	5.2	5.5	5.5

(a) Emissions are reported using the "market-based" methodology, integrating significant changes in scope that have an impact on CO₂ emissions during the year from the effective date.

(b) In kg CO₂-equivalent/euro of Operating income recurring before depreciation and amortization at 2015 exchange rate and excluding IFRS 16 for greenhouse gas emissions Scopes 1 and 2 reported using the "market-based" methodology (See methodology of the Scopes calculations in the paragraph 2.3.4 in the Annual Reporting section of the chapter 5, pages 426 and 427 and reconciliation in paragraph Performance indicators of Chapter 1, page 61).

Following the takeover of the Sasol Air Separation Units in South Africa on June 24, 2021, the carbon intensity of the Group increases in 2021 reflected only a half year impact, as from the date of acquisition. The 2022 emissions reflect a full year's impact; nevertheless, the control of the CO₂ emissions trajectory and the Group's financial results have allowed the carbon intensity to be stabilized as of 2022. Given the ambitious decarbonization plan of the Group, including for the Sasol project, this does not compromise the -30% carbon intensity reduction objective to reach an intensity of 5.1 kg CO₂-eq./euros of Operating income (using "market-based" methodology) by 2025 vs. 2015 baseline.

Indicators	2016	2017	2018	2019	2020	2021	2022
Driver 1: Purchases of renewable electricity (TWh) ^(a)	5.0	5.6	6.2	5.6	6.0	6.8	7.5
Driver 2: Energy efficiency (ASU) ^{(b) (c)}	-0.5%	1.9%	2.2%	1.6%	0.5%	-0.1%	0.3% *
Driver 2: Energy efficiency (HyCO) ^{(b) (d)}	—	0.6 %	-0.2 %	0.1%	-0.1 %	-2.0%	-4.4% *
Driver 3: Operated or decided Electrolyzer capacity ^{(e) (f)}	—	—	—	—	—	65	83
Driver 4: Carbon footprint of air gases (N ₂ , O ₂ and Air) delivered in bulk, cylinders or On-Site products (Industrial Merchant activity) ^(g)	302	300	301	282	289	269	276

(a) Air Liquide has upgraded the way power procured for its assets is accounted for in its industrial reporting systems, with more granularity enabling a better distinction between electricity and steam, and using when available, a residual mix for electricity from the grid. Together with the shift to "market-based" reporting for Scope 2 emissions which provides a more accurate primary energy mix for power procured, this leads to a restatement of the amount of renewable energy in the mix. Going forward, Air Liquide's ambitious decarbonization strategy includes increase in renewable power sourcing.

(b) These indicators are calculated taking into account the 2015 baseline. By definition, the reference year is equal to 0%. Efficiency can be affected by reliability, maintenance, number of turnarounds, startups and ramps ups.

(c) The efficiency of ASU is measured by the volume of air gases produced per unit of energy consumed. Produced gases (oxygen, nitrogen, argon) accounted in m³ of gaseous oxygen equivalent.

(d) Efficiency corresponds to the volume of hydrogen produced per unit of energy consumed. Hydrogen and carbon monoxide.

(e) Units: MW.

(f) After the revision of the reporting process for small units, the 2021 figure was revised downward in 2022 due to changes in scope, the exclusion of units that were previously double counted as well as units that were found to no longer be in operation.

(g) Units: kg CO₂-eq. per tonne.

* Indicator verified by the independent verifier.

The variation in efficiency for hydrogen production is mainly due to maintenance shutdowns and strong variations in volumes depending on the month of the year.

Several medium-sized electrolysis projects have been approved in 2022. However, several studies are underway for new large-scale electrolysis projects such as Normand'Hy and ELYgator.

2.5. ENERGY AND EFFICIENCY INDICATORS FOR THE GROUP AS A WHOLE

	2018	2019	2020	2021	2022
Annual electricity consumption (in GWh) ^(a)	36,265	35,687	36,089	40,731	42,994 *
Percentage of electricity consumed by the Group which is renewable	17.0%	15.8%	16.5%	16.8%	17.5%
Percentage of electricity consumed by the Group which is low-carbon or renewable	60.9%	62.0%	62.3%	61.1%	59.5%
Annual thermal energy consumption (in LHV terajoules) ^(b)	306,111	307,022	295,235	300,545	310,257 ^{(c)*}
Change in air gas produced per energy consumption ^(e)	102.2	101.6	100.5	99.9	100.3 *
Change in hydrogen produced per energy consumption ^{(d) (e)}	99.8	100.1	99.9	98.0	95.6 *

(a) Includes a share of steam and compressed air purchased by the Group.

(b) LHV: Lower Heat Value, which includes the fact that energy from water vaporizing in fuel is not recovered.

(c) Approximately 86,182 GWh LHV

(d) Hydrogen and carbon monoxide.

(e) 2015 base of 100, efficiency can be affected by reliability, maintenance, turnaround, number of startups and ramps ups.

* Indicator verified by the independent verifier.

Due to the transition to the "market-based" methodology in 2021, the values for the years prior to 2020 have been recalculated in order to harmonize the accounting of electricity sources with the methodology for calculating indirect emissions (Scope 2) and the comparability of indicators. The variation in efficiency for hydrogen production is mainly due to maintenance shutdowns and strong variations in volumes depending on the month of the year.

2.6. WATER CONSUMPTION

	2018	2019	2020	2021	2022
Annual water withdrawal (estimate in millions of m ³)	394	270	257	950 ^(a)	973 ^{(d)*}
Annual water consumption (estimate in millions of m ³) ^(b)	86	94	90	82	91 *

(a) In 2021, a new reporting tool was implemented and new collection criteria introduced; the increase in reported water quantities for both withdrawals and discharges compared with previous years results from the inclusion of more Open Cooling Circuits, enabled by more granular reporting.

(b) Net water consumption, calculated as the difference between the water withdrawn and the water returned to the source.

* Indicator verified by the independent verifier.

The increase in reported water quantities in 2022 compared with 2021 is mainly related to acquisitions, and in particular to the addition of the production units of Sasol.

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2.7. DISCHARGES INTO AIR AND WATER

DISCHARGES INTO AIR AND WATER (in tonnes)

	2018	2019	2020	2021	2022
Discharges into air: NOx (nitrogen oxides)	3,974	5,043	3,727	3,720	3,922
Discharges into air: SOx (sulfur oxides)	<100	<100	<100	<100	<100
Volatile organic compounds (VOCs) discharged into the atmosphere (estimate)	246	299	236	206	208
Discharges to water: oxidizable matter	<1,000	<1,000	<1,000	3,734	2,841
Discharges to water: suspended solids	<1,000	<1,000	<1,000	<1,000	<1000

2.8. WASTE AND BY-PRODUCTS

Air Liquide wishes to be part of a process of continuous improvement of its environmental footprint regarding waste. To this end, in 2019, the reporting of waste and by-products changed to provide a more comprehensive view of the types of waste generated and their management.

This approach focuses on the three main hazardous waste groups at each site, allowing a better appreciation of the main environmental impacts associated with waste in each location. This new approach is to be refined in the coming years, in order to provide a view that will allow this environmental footprint to be managed more effectively within the Group.

Main hazardous waste	% of sites which mentioned it as one of their three main hazardous waste categories	Treatment mode	Volume concerned
Oils	72.7%	Recycling	82.7%
Paints and solvents	9.6%	Incineration with energy recovery	60%
Batteries	59%	Recycling	74%

*

For non-hazardous waste, the main waste groups are metal, paper, wood and plastics. More than half of the Group's sites provide a selective collection of this waste. More than 98% of metal is recycled at all sites.

	2018	2019	2020	2021	2022
Non-hazardous waste and by-products					
Annual quantity of lime produced (extracted by dry equivalent) by the acetylene production units (in tonnes)	25,380	31,247	27,966	31,281	23,298 ^(d)
% recycled	>90%	>90%	>90%	>90%	>87%
Metal waste (in tonnes) ^(a)	61,680	20,632	6,861	11,755	8,450 *
% recycled	>99%	>99%	>99%	>99%	>99%
TOTAL NON-HAZARDOUS WASTE AND BY-PRODUCTS (estimate in tonnes)	87,060	51,879	34,827	43,036	31,748

(a) Non-hazardous metal waste.

(b) Decrease in 2019 following the end of the Airgas unused cylinder cleaning process.

(c) Decrease in 2020 following the divestment of a plant and an economic situation which has caused delays in the disposal of metal waste.

(d) In 2022, a new methodology for calculating the amount of lime generated by acetylene production was implemented. The decrease in the amount of lime compared to previous years is the result of the application of this new methodology.

* Indicator verified by the independent verifier.

3. Human Resources Indicators

GROUP EMPLOYEES ^(c)

Employees	2018	2019	2020	2021	2022
Group employees	66,000	67,200	64,445	66,436	67,109 *
Women	17,300	17,500	17,242	18,324	18,739 *
as a %	26%	26%	27%	28%	28%
Men	48,700	49,700	47,203	48,112	48,370 *
as a %	74%	74%	73%	72%	72%
Joining the Group ^(b)	16.5%	17.4%	11.1%	20.0%	21.1%
Leaving the Group ^(c)	15.2%	16.4%	19.7%	17.7%	20.2%
% of employees having resigned during the year ^(d)	8.0%	7.5%	5.8%	9.6%	10.3%

(a) Employees under contract, excluding temporary employees.

(b) Hiring or integration due to acquisitions. The percentage is based on the number of employees as of December 31 of the preceding year.

(c) Retirement, resignations, layoffs (approximately 20% of departures), departures due to disposals, etc. The percentage is calculated based on the number of employees as of December 31 of the preceding year.

(d) Calculated on the number of employees as of December 31 of the preceding year.

* Indicator verified by the independent verifier.

HUMAN RESOURCES INDICATORS FOR THE GROUP

	2018	2019	2020	2021	2022
Parity and diversity					
Gender mix					
% of women among managers and professionals	29%	29%	30%	31%	31.5% ^{(a)*}
% of women among managers and professionals hired during the year	36%	38%	36%	38%	38% *
% of women among employees considered high-potential	41%	41%	43%	46%	47%
% of women in positions defined as "Executives"	19%	19%	21%	24%	24.8%
Number of nationalities					
Among expatriates	49	55	51	48	65
Among senior executives	30	34	34	35	35
Among employees considered high-potential	53	55	55	53	57
Number of nationalities among senior executives/ Number of countries where the Group is present	38%	43%	44%	47%	48%
Training					
% of total payroll allocated to training	Approx. 2%	Approx. 2%	Approx. 1%	Approx. 1%	Approx. 1%
Average number of days of training per employee, per year (order of magnitude)	2.7 days	3.0 days	2.1 days	2.7 days ^(h)	3.2 days ^{(b)*}
% of employees who received training at least once during the year (order of magnitude)	63%	70%	65%	74%	74%
Performance review					
% of employees who had an annual performance review meeting with their direct supervisor during the year	80%	78%	83%	83%	78% *
% of employees who had a career development meeting with the HR department during the year	13%	14%	12%	13%	13%
Remuneration					
% of employees with an individual variable component as part of their remuneration	53%	56%	59%	60%	59%
Absenteeism					
Absence rate of Air Liquide employees (estimate)	2.3%	2.1%	1.9%	1.4%	1.5%
Employee loyalty					
Average length of service in the Group	10 years	10 years	10 years	10 years	10 years
Retention rate of managers and professionals over one year ^(c)	93%	93%	95%	93%	92%
Social performance					
% of employees with disabilities ^(d)	1.1%	1.2%	1.2%	1.2%	2.6%
% of employees with access to a representation/dialog-consultation structure	86%	80.4% ^(e)	81%	82%	86%
% of employees who participated in an internal engagement survey (My Voice) during the year ^(f)	36%	74%	80%	83%	77%
Employee shareholders					
% of capital held by the Group's employees ^(g)	1.7%	1.7%	1.7%	1.9%	2.0%
% of Group employees that are shareholders of L'Air Liquide S.A.	43%	40%	40%	48%	46%

(a) The share of women among "Managers and Professionals" is rounded off in increments of 0.5%.

(b) 24 hours per year when counted in hours (base: 1 day = 7.5 hours), does not take into account training courses if they do not total a minimum of one day (e.g. e-learning).

(c) This rate is calculated as follows: 100% - (Number of resignations among managers and professionals/Total number of managers and professionals)

(d) For countries where regulations allow this data to be made available.

(e) Decrease in 2019 related to the acquisition of new entities with no existing structures.

(f) Implementation of My Voice in 2020. Previous years represent the % of employees who participated in a commitment survey over the last three years.

(g) As defined by article L. 225-102 of the French Commercial Code.

(h) The figure reported in 2021 was incorrect, a new calculation allowed to rectify it..

* Indicator verified by the independent verifier.

4. Regulations

4.1. GHG EMISSION QUOTA SYSTEMS

Air Liquide is present in a number of regions that have implemented or are in the process of implementing quota systems for greenhouse gas emissions. These regulatory developments are being followed by the Air Liquide teams to make sure that the Group's activities comply with the obligations associated with these quota systems.

4.1.1. In Europe

In the European Union, the European ETS (Emission Trading Scheme) directive established a system of greenhouse gas emission quotas in 2005, in accordance with the Kyoto Protocol and the European Union's climate change objectives. After an initial phase from 2005 to 2007 and a second phase from 2008 to 2012, a third phase, covering the period from 2013 to 2020, has made it possible to expand the scope of industrial facilities subject to the ETS. The ETS has entered its fourth phase, covering the period 2021-2030, which carries an increase in the reduction factor. A provisional agreement from December 2022 on the next revision of EU ETS in the context of the Fitfor55 package, assumes the reduction of emissions from the stationary industry by 62% by 2030 compared to 2005.

For Air Liquide, in 2022, this directive affected all of its cogeneration sites in Germany, France and the Netherlands, as well as all of the Group's large hydrogen production sites in Europe. With regard to hydrogen production units, a portion of the CO₂ emission quotas is allocated for free according to a benchmark established for the top-performing European facilities. Air Liquide acquires the remaining CO₂ quotas from the market or its customers in order to cover the hydrogen production site emissions not covered by the free allocations and for all emissions from cogeneration sites. As hydrogen is expected to be included in new rules called Carbon Border Adjustment Mechanism (CBAM), revised ETS rules will lead to gradual phasing-out of the free allowances (to zero in 2034) for hydrogen installation.

4.1.2. In China

From 2013, the Chinese government had launched pilot ETS programs in seven provinces/cities (Guangdong, Hubei, Beijing, Tianjin, Shanghai, Chongqing and Shenzhen). Four Air Liquide entities participated in the program. A national carbon market was launched on July 16, 2021. At this stage, it only covers one sector, electricity. However, the 2,162 companies it comprises produce around 4.5 billion tonnes of carbon emissions per year. In 2022 the market will also include the steel and cement industry. Other industries (such as the chemical industry) are expected to be included in the national system over the next five years. For now, there is no absolute cap in the Chinese carbon market. China allocates all companies their emission quotas. The allocation is based on a national comparative analysis with each emitter allocated quotas equal to their verified emissions. This approach means that China is not yet a cap-and-trade system. Nevertheless, companies that succeed in reducing the carbon intensity of their production can generate a surplus of tradeable quotas. At the end of 2022, the average price of CO₂ was 60 RMB/ton (8.5 euros per tonne), and since the start of the market in July, 194 million tonnes have been traded.

4.1.3. In Canada

The federal pricing system has two parts: a regulatory charge on fossil fuels like gasoline and natural gas, known as the fuel charge, and a performance-based system for industries, known as the Output-Based Pricing System (OBPS).

The Government of Canada has confirmed that the carbon pollution pricing systems in Quebec, Nova Scotia, Newfoundland and Labrador, the Northwest Territories, and British Columbia continue to meet the federal benchmark stringency requirements, and as of 2021, New Brunswick has a carbon pollution pricing system that also meets the benchmark requirements. As of January 1, 2022, Ontario's provincial output-based pricing system will apply alongside the federal fuel charge.

Air Liquide Canada is a market participant in the Quebec cap-and-trade system, a voluntary participant in the Ontario provincial OBPS and a mandatory participant in the Alberta provincial OBPS.

4.1.4. In Kazakhstan

The national quota allocation plan for 2021 came into effect on January 13, 2021. A revised version came into effect on January 1, 2022. A revised version came into force on January 1, 2022. The emissions trading system (ETS) applies to all direct emitters of more 20,000 tCO₂/year.

4.1.5. In California

The California GHG Cap-and-Trade system was established through the Assembly Bill 32 (AB32) for the period 2013-2020, and the first compliance period started in 2013. In 2017, a new bill, AB398, authorizes the California Air Resource Board (CARB) to continue enforcing the Cap-and-Trade regulation over the period 2021 through 2030. The fundamentals of the AB32 remain unchanged with AB39.

4.1.6. Synthesis

Other countries, such as South Korea have also implemented a national emission quota exchange system. In 2018, a CO₂ taxation system was put in place in Singapore.

System (in thousands of tonnes of CO ₂)	2022	
	Allowances Allocated	Allowances Purchased
California CaT	1,042	246 ^(a)
EU ETS ^(b)	2,554	2,946
Kazakhstan ETS	222	— ^(a)
Korea ETS	215	— ^(a)
China ETS ^(c)	1,428	8 ^(a)
Canada ETS	601	—

(a) Estimates pending validation by local authorities.

(b) Taking into account the joint ventures for which the Group's partners are responsible for purchasing the allocations.

(c) On Scopes 1 and 2.

4.2. MARKET AUTHORIZATION REGULATIONS

The distribution of substances, products and articles is part of the product stewardship approach developed by the chemical industry.

In terms of market authorizations, Air Liquide is mainly affected by four regulations: chemical substances (REACH), biocidal products (BPR), plant protection products (PPP) and fluorinated gases (F-gas).

4.2.1. European REACH regulation – Regulation (EC) No. 1907/2006

REACH (Registration, Evaluation, Authorisation and restriction of CHemicals) is a European Union regulation that governs the registration, notification, restriction and authorisation of chemical substances produced in or imported into the European Union. Air Liquide also ensures that the raw materials used and placed on the market comply with the REACH regulation.

REACH registration of chemical substances

Any chemical substance imported into or manufactured in Europe in excess of one ton per year must be registered with the European Chemicals Agency, ECHA. Each manufacturer or importer must have its own registration.

The European REACH regulation came into effect in 2007, and the registration procedures for existing substances manufactured or imported in excess of one ton per year were scheduled to run until May 31, 2018. After this date, the obligations relating to the maintenance and updating of files continue in the event of production or import in a higher tonnage band, during the review of registration files by the authorities, during administrative updates and when new information on risks to humans or the environment comes to light.

The same obligations will apply to all new substances from the first ton produced or imported into Europe.

Air Liquide's main products, such as oxygen, nitrogen, hydrogen, CO₂, helium and rare gases, are exempt from registration under REACH.

Air Liquide is lead registrant for several substances, in particular specialty gases for the Electronics business (NF₃, CF₄, C₄F₈, SiF₄...). Air Liquide is ordinary registrant for several other substances: carbon monoxide, acetylene, methanol, lime, nitrous oxide, ultra-pure fuels have been registered under this regulation by each subsidiary concerned.

In addition, Seppic, manufacturers of specialty ingredients for health and beauty, is subject to REACH regulations for some of its substances. Seppic has anticipated the implementation of the European REACH regulation and ensures continued compliance with the regulation. In parallel with the European dossiers submitted within the framework of the REACH regulation, Seppic also ensures compliance with similar regulations outside Europe.

In 2022, Group sales subject to registration under REACH represent less than 1% of Group revenue.

Restriction under REACH of the use of chemical substances

Air Liquide is mainly impacted by restrictions relating to the use of solvents used to distribute acetylene. The solvent DMF is subject to a restriction under a European regulation of November 2021 that requires occupational exposure during cylinder filling operations to be monitored. NMP, a potential substitute, is also subject to restricted use as of May 2020.

Authorization under REACH: transitional authorization of chemical substances

Transitional authorizations before permanent cessation of use in Europe apply to SVHC (Substances of Very High Concern) substances included in the candidate list for authorization.

Air Liquide does not distribute substances subject to authorization. These SVHCs are essentially contained in articles distributed for the commissioning or production of gases.

Notification under REACH of articles manufactured, imported or distributed

Notification to the European Chemicals Agency of any SVHCs, listed in the candidate list, is mandatory when the product concentration is greater than 0.1% by weight and if the total imported or produced exceeds one ton per year.

Such SVHCs are contained in the articles for gas commissioning or gas production.

In the case of complex items, composed of several elementary items, the 1% threshold applies to the most elementary part and not to the complex whole.

The presence of such SVHC must also be communicated during any distribution of these articles to professionals or industry. Communication to individuals is only applicable if a consumer explicitly requests it.

Notification in the SCIP database of items placed on the market

The WFD (Waste Framework Directive) requires distributors of articles containing SVHCs, as defined by REACH, above 0.1% by weight, to fill out a database called SCIP, where the article is described and the location of the SVHC substance is designated. There is no threshold limit as for REACH notifications.

Air Liquide as a supplier of articles and equipment, medical or non-medical (e.g. freezing tunnels) is concerned.

This SCIP database will be used at the end of the article's life when it is dismantled by waste treatment or recycling centers as part of the circular economy.

Air Liquide now requires its equipment suppliers to inform it of the presence and precise location of all elementary parts containing SVHCs.

4.2.2. Biocide Regulation (BPR-2012) and Plant Protection Products Regulation (PPP-2009)

These old regulations (2012 BPR and 2009 PPP), applicable throughout Europe, are often accompanied by national decrees on phytosanitary products. Gases such as CO₂ are often used in pesticides or disinfectants, replacing chemicals that are banned in Europe.

These two regulations require an approval of the substance at the European level, prior to the application for national authorization.

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Since 2016, Air Liquide has been involved in PPP renewal files for the approval of carbon dioxide (CO₂) used as an insecticide and ethylene (C₂H₄) diluted in nitrogen used as an artificial ripening agent for fruits and tubers. The renewals are now due in 2022 and 2023 respectively following a delay in the file review process due to a government backlog.

After approval, the internal distribution channels, or supply chain, will have to be reviewed because the sources of these BPR and PPP products require sourcing exclusively from the sources that have either been referenced in the approval file or given technical equivalence when the file was submitted.

Under BPR, the review of the Ozone approval file is still in progress. Once approved, the appropriate requests for authorization both for the use in industrial facilities and for the marketing of its precursor, oxygen, will then be submitted. This concerns applications for water purification, container disinfection and industrial water treatment.

The BPR and PPP regulations also impose additional labeling obligations.

4.2.3. Regulation F-GAS (2014) Regulation (EU) No. 517/2014

This European regulation only applies to fluorinated gases placed on the market within the Union. It imposes marketing quotas on HFC (hydrofluorocarbon)-type gases because of their very high global warming potential. The other gases concerned by this regulation are monitored and are therefore subject to a reporting obligation.

Air Liquide mainly markets this type of gas for the electronics and medical sectors. Fluorinated gases used in the electronics sector are destroyed before discharge into the atmosphere and therefore their use is exempted from the quota system.

4.2.4. Globally Harmonized System of Classification and Labelling of Chemicals

The Globally Harmonized System of Classification and Labelling of Chemicals, better known as GHS, was created by the United

Nations. This system sets out the classification of chemical products according to the types of danger that they represent and provides standardized hazard information, including labeling.

This labeling must provide key information concerning health, safety and environmental protection to everyone who handles a hazardous product or who could be exposed to one.

In the countries in which GHS is implemented in local regulations, Air Liquide subsidiaries have implemented the principles of GHS in terms of product compliance in accordance with the requirements set out in local regulations.

4.2.5. Notification to Poisons Centers (Regulation 1272/2008/EC, Annex VIII)

The notification to the national emergency services (Poison Centers) of the composition and numbers of any mixture placed on the market is mandatory from January 1, 2021 in Europe for products intended for consumer or trade use, and from January 1, 2024 for those intended for industrial use.

This process requires obtaining a unique identification number (UFI code) at the European level, which must also be indicated on the labels of bottles and products. Transit through a depot center also requires a UFI code in the country concerned.

4.2.6. Seveso Directive 3

This European directive concerns the prevention of major industrial risks. It applies to any facility where certain hazardous substances are present above certain quantities. These facilities are classified into two categories according to the quantity of substances present: Seveso 3 "upper tier" and "lower tier." In Europe, 94 "lower tier" and 28 "upper tier" Air Liquide sites are concerned, mainly because of oxygen storage.

Seveso regulations apply mainly in Europe, but if the Seveso "upper tier" criteria were to be applied worldwide, 83 other Group sites would be covered.

5. Reporting methodology

5.1. PROTOCOL AND DEFINITIONS

In the absence of a relevant and recognized protocol for industrial gas operations, Air Liquide has created its own protocol to define its reporting methods for Human Resources, safety and environmental indicators. This protocol includes all of the definitions, measurement procedures and collection methods for this information. In line with the Group's commitment to continuous improvement, Air Liquide is gradually completing this work to adjust its Sustainable Development indicators protocol to reflect changes in the Group.

This protocol is based on the general principles defined by the Group with regard to scope, responsibilities, controls and limits, and establishes definitions, departmental responsibilities, tools and data-tracing methods for each indicator. This document is regularly updated.

Moreover, this protocol takes into account all the Group's formalized procedures in the framework of the Industrial Management System (IMS) and the global protocol for Group Policies, Codes and Procedures called the BlueBook. This reporting protocol makes it possible to cover the information listed in articles L. 22-10-36 and R. 225-105 of the French Commercial Code, except for the fight against food waste, food insecurity, respect for animal welfare, commitments to responsible, fair and sustainable food and the promotion of the practice of physical activities and sports. Due to its industrial activity, these subjects are not considered a priority by Air Liquide.

In 2021, following the publication of enhanced Sustainable Development objectives, new indicators were developed for monitoring the corresponding action plans and the degree to which the objectives are achieved.

5.2. SCOPE AND CONSOLIDATION METHODS

Human Resources and environmental indicators are consolidated worldwide for all companies integrated within the financial consolidation scope. Entities accounted for by the equity method are excluded from the reporting scope.

Safety indicators are consolidated worldwide for all companies in which Air Liquide has operational control or is responsible for safety management.

Apart from these general rules, there are some specific ones:

- information on the impact of transportation (kilometers traveled, CO₂ emitted) is calculated based on data collected in the main countries where the Group is established;
- information on avoided kilometers and avoided CO₂ emissions through on-site Air Separation Units and efficiency measures pertains to fully consolidated subsidiaries within the financial consolidation scope;
- environmental and energy indicators for the main types of production units operated by the Group cover about 99% of the Group's Gas & Services revenue and 98% of the Group's total revenue;
- for environmental and energy indicators, production units are included in the reporting system from the effective date of their industrial commissioning;
- electricity consumption and the indirect CO₂ emissions related to it are only taken into account when Air Liquide pays for this energy. Energy consumption of on-site units and water consumption specific to the sale of treated water (which is not part of the Group's core business) are excluded from the consolidation scope of the data. When the Group has cogeneration units in a country where ASUs are available, the indirect emissions from the electricity of these units are adjusted to take into account self-consumption;
- the segmentation between advanced economies and developing economies, used for direct and indirect greenhouse gas emissions, is the same as that used by the Finance Department;
- the 2020 base used to monitor the targeted -33% reduction in CO₂ emissions by 2035 has been restated following significant changes in the scope regarding industrial gas manufacturing units;
- the avoided CO₂ emissions reported on the climate benefit of using hydrogen to desulfurize fuels due to lower black carbon emissions are calculated using methodologies widely used by the industries reporting these climate benefits, and via extrapolations to Group data.

5.3. DATA COLLECTION AND RESPONSIBILITIES

The Human Resources, safety and environmental indicators are produced by several data collection systems in the Group, each under the responsibility of a specific department:

- Human Resources indicators, included in the Group's general accounting consolidation tool, fall under the responsibility of the Human Resources Department;

- the energy consumption and CO₂ emissions indicators for the main Air Separation Units and cogeneration, hydrogen and carbon monoxide units are tracked by the Large Industries business line using a dedicated Intranet tool;
- as a complement, environmental and safety reporting is carried out by the Safety and Industrial System Department using a dedicated Intranet tool, and includes:
 - for all entities, the Group's accident reporting data,
 - for the units of the Large Industries business line, other environmental indicators (atmospheric emissions, water consumption, discharge to water, etc.),
 - for the smaller units (acetylene, nitrous oxide, and carbon dioxide units and Hygiene and Specialty Ingredients businesses), the Engineering & Construction business units, the Research and Development sites and the Technical Centers, all indicators (energy, atmospheric emissions, water consumption, discharge to water, etc.);
- indicators on Industrial Merchant transportation are the responsibility of this business line;
- indicators on transportation for Medical Gases and Home Healthcare are the responsibility of the Healthcare business line;
- among the subjects covered by the French "Grenelle 2" law, soil pollution and the consideration of noise pollution are not relevant for the Industrial Gas business, given the size of the Group's sites and the noise levels generated. They are therefore not mentioned in this report.

5.4. CONTROLS

Each department in charge of collecting data is responsible for the indicators provided. Control occurs at the time of consolidation (review of changes, inter-entity comparisons).

Compliance with the CO₂ trajectory is ensured by the Finance Department with the support of the Sustainable Development Department through the management and monitoring of CO₂ budgets, as part of a reporting process with responsibilities clearly assigned to the various entities involved (operations for data collection, industrial management teams for verification and variance analysis by the Finance Department)

Safety and energy indicators are tracked monthly. Where the data reported are inconsistent or missing, an estimated value may be used by default.

5.5. METHODOLOGICAL LIMITS

The methodologies used for certain Human Resources, safety and environmental indicators can have certain limits due to:

- the absence of nationally or internationally recognized definitions, in particular for indicators on managers and professionals and social performance indicators;
- the representativeness of the measurements taken and required estimates. This is particularly the case for indicators regarding avoided CO₂ emissions, water consumption, kilometers avoided per on-site unit, and training.

6. Independent verifier's report

REPORT BY ONE OF THE STATUTORY AUDITORS, APPOINTED AS AN INDEPENDENT THIRD PARTY, ON THE NON-FINANCIAL INFORMATION STATEMENT INCLUDED IN THE MANAGEMENT REPORT

This is a free translation into English of the Statutory Auditor's report issued in French and is provided solely for the convenience of English speaking readers. This report should be read in conjunction with, and construed in accordance with, French law and professional standards applicable in France.

For the year ended December 31, 2022

To the L'Air Liquide Annual General Meeting,

In our capacity as Statutory Auditor of the company L'AIR LIQUIDE (hereinafter the "Entity"), appointed as independent third party ("third party") and accredited by the French Accreditation Committee (Cofrac), (Cofrac Inspection Accreditation, n°3-1862, scope available at www.cofrac.fr), we have undertaken a limited assurance engagement on the historical information (observed or extrapolated) in the consolidated non-financial statement, prepared in accordance with the Entity's procedures (hereinafter the "Guidelines"), for the year ended December 31, 2022 (hereinafter the "Information" and the "Statement", respectively), presented in the group management report pursuant to the legal and regulatory provisions of Articles L. 225-102-1, R. 225-105 and R. 225-105-1 of the French Commercial Code (code de commerce).

Conclusion

Based on the procedures we have performed as described under the "Nature and scope of procedures" and the evidence we have obtained, nothing has come to our attention that cause us to believe that the consolidated non-financial statement is not prepared in accordance with the applicable regulatory provisions and that the Information, taken as a whole, is not presented fairly in accordance with the Guidelines.

Preparation of the non-financial performance statement

The absence of a commonly used generally accepted reporting framework or a significant body of established practice on which to draw to evaluate and measure the Information allows for different, but acceptable, measurement techniques that can affect comparability between entities and over time.

Consequently, the Information needs to be read and understood together with the Guidelines, summarised in the Statement.

Inherent Limitations in Preparing the Information

The Information may be subject to uncertainty inherent to the state of scientific and economic knowledge and the quality of external data used. Some information is sensitive to the choice of methodology and the assumptions or estimates used for its preparation and presented in the Statement.

The entity's responsibility

Management is responsible for:

- selecting or establishing suitable criteria for preparing the Information;
- preparing a Statement pursuant to legal and regulatory provisions, including a presentation of the business model, a description of the main non-financial risks, a presentation of the policies implemented considering those risks and the outcomes of said policies, including key performance indicators and the information set-out in Article 8 of Regulation (EU) 2020/852 (Green taxonomy);
- preparing the Statement by applying the Entity's "Guidelines" as referred above; and
- implementing internal control over information relevant to the preparation of the Information that is free from material misstatement, whether due to fraud or error

The Statement has been prepared by the Board of Directors.

Responsibility of the Statutory Auditor, appointed as an independent third party

Based on our work, our responsibility is to express a limited assurance conclusion on:

- the compliance of the Statement with the requirements of Article R. 225-105 of the French Commercial Code;e;
- the fairness of the information provided pursuant to part 3 of sections I and II of Article R. 225-105 of the French Commercial Code, i.e. the outcomes of policies, including key performance indicators, and measures relating to the main risks, hereinafter the "Information."

As we are engaged to form an independent conclusion on the Information as prepared by management, we are not permitted to be involved in the preparation of the Information as doing so may compromise our independence.

It is not our responsibility to report on:

- the Entity's compliance with other applicable legal and regulatory provisions (particularly with regard to the information set-out in Article 8 of Regulation (EU) 2020/852 (Green taxonomy), the French duty of care law and against corruption and tax evasion);
- the fairness of information set-out in Article 8 of Regulation (EU) 2020/852 (Green taxonomy)
- the compliance of products and services with the applicable regulations.

Applicable regulatory provisions and professional guidance

We performed the work described below in accordance with Articles A. 225-1 et seq. of the French Commercial Code, the professional guidance issued by the French Institute of Statutory Auditors (Compagnie Nationale des Commissaires aux Comptes) applicable to such engagement, in particular the professional guidance issued by the Compagnie Nationale des Commissaires aux Comptes, Intervention du commissaire aux comptes – Intervention de l'OTI – déclaration de performance extra-financière, and acting as the verification programme and with the international standard ISAE 3000 (revised) - Assurance engagements other than audits or reviews of historical financial information.

Independence and quality control

Our independence is defined by the provisions of Article L. 822-11 of the French Commercial Code and French Code of Ethics for Statutory Auditors (Code de déontologie) of our profession. In addition, we have implemented a system of quality control including documented policies and procedures aimed at ensuring compliance with applicable legal and regulatory requirements, ethical requirements and the professional guidance issued by the French Institute of Statutory Auditors (Compagnie Nationale des Commissaires aux Comptes) relating to this engagement.

Means and resources

Our work engaged the skills of 12 people between October 2022 and February 2023 and took a total of 18 weeks.

We were assisted in our work by our specialists in sustainable development and corporate social responsibility. We conducted 24 interviews with people responsible for preparing the Statement, representing in particular Sustainable Development, Human Resources, Risk management, Finance, Ethics, Taxes and Procurement.

Nature and scope of our work

We are required to plan and perform our work to address the areas where we have identified that a material misstatement of the Information is likely to arise.

The procedures we performed were based on our professional judgment. In carrying out our limited assurance engagement on the Information, we:

- obtained an understanding of all the consolidated entities' activities and the description of the main risks associated;
- assessed the suitability of the criteria of the Guidelines with respect to their relevance, completeness, reliability, neutrality and understandability, taking into account, where appropriate, best practices within the sector;
- verified that the Statement includes each category of social and environmental information set out in article L. 225 102 1 III as well as information regarding compliance with human rights and anti corruption and tax avoidance legislation;
- verified that the Statement provides the information required under Article R. 225-105 II of the French Commercial Code where relevant with respect to the main risks, and includes, where applicable, an explanation for the absence of the information required under Article L. 225-102-1 III, paragraph 2 of the French Commercial Code;
- verified that the Statement presents the business model and a description of the main risks associated with of all the consolidated entities' activities, including where relevant and proportionate, the risks associated with its business relationships, its products or services, as well as its policies, measures and the outcomes thereof, including key performance indicators associated to the main risks;
- referred to documentary sources and conducted interviews to:
 - assess the process used to identify and confirm the main risks as well as the consistency of the outcomes, including the key performance indicators used, with respect to the main risks and the policies presented, and
 - corroborate the qualitative information (measures and outcomes) that we considered to be the most important presented in Appendix 1; For some risks, climate (physical impact on operations), biodiversity, fight against corruption, fight against tax evasion, our work was carried out on the consolidating entity, for other risks, our work was carried out on the consolidating entity and on a selection of sites: SOKK – ASU, Pernis – Cogeneration, Sasol Secunda - T17 – ASU, El Segundo – HYCO, Rodeo – HYCO, LaPorte – HYCO, Bayport – Cogeneration, Bayport – HYCO, J10 – HYCO, ALTPCC – ASU, ALMPCC – ASU, ALSXYA – ASU, Antwerpen - HYCO - Jupiter 1 & 2, AL Colombia, AL UK IM, ALSF, AL Japan, Airgas IM, ALAM US, AL S-Africa, AL Sweden IM, IM France;
- verified that the Statement covers the consolidated scope, i.e. all the entities within the consolidation scope in accordance with Article L. 233-16 of the French Commercial Code within the limitations set out in the Statement;
- obtained an understanding of internal control and risk management procedures the Entity has implemented and assessed the data collection process aimed at ensuring the completeness and fairness of the Information;

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- for the key performance indicators and other quantitative outcomes that we considered to be the most important presented in Appendix, implemented:
 - analytical procedures to verify the proper consolidation of the data collected and the consistency of any changes in those data;
 - tests of details, using sampling techniques, in order to verify the proper application of definitions and procedures and reconcile the data with supporting documents. This work was carried out on a selection of contributing sites: SOKK – ASU, Pernis – Cogeneration, Sasol Secunda - T17 – ASU, El Segundo – HYCO, Rodeo – HYCO, LaPorte – HYCO, Bayport – Cogeneration, Bayport – HYCO, J10 – HYCO, ALTPCC – ASU, ALMPCC – ASU, ALSXYA – ASU, Antwerpen - HYCO - Jupiter 1 & 2, AL Colombia, AL UK IM, ALSF, AL Japan, Airgas IM, ALAM US, AL S-Africa, AL Sweden IM, IM France and covers between 24% and 30% of the consolidated data relating to the key performance indicators and outcomes selected for these tests;
- assessed the overall consistency of the Statement in relation to our knowledge of all the consolidated entities.

The procedures performed in a limited assurance review are less in extent than for a reasonable assurance opinion in accordance with the professional guidelines of the French National Institute of Statutory Auditors (Compagnie Nationale des Commissaires aux Comptes); a higher level of assurance would have required us to carry out more extensive procedures.

Neuilly-sur-Seine, March 1st, 2023

One of the Statutory Auditors

PricewaterhouseCoopers Audit

French original signed by

Cédric Le Gal
Partner

Sylvain Lambert
Sustainable Development Partner/Director

Appendix: List of the information we considered most important**Key performance indicators:**

- Direct GHG emissions (scope 1);
- Indirect GHG emissions (scope 2);
- Water consumption;
- Accident frequency and number of accidents of Group employees and temporary workers;
- Share of employees with common basis of care coverage;
- Share of employees who have had an annual performance review meeting during the year;
- Share of women managers and professionals (M&Ps);
- Share of employees who attended the anticorruption e-learning;
- Air Liquide's effective tax rate.

Other quantitative results:

- Indirect GHG emissions (scope 3);
- CO₂ emissions avoided;
- Metal waste;
- Evolution of the quantity of air gas produced per unit of energy consumed (Energy efficiency ASU);
- Evolution of the quantity of hydrogen produced per unit of energy consumed (Energy efficiency HyCO);
- Kilometers traveled by all vehicles delivering gas in liquid or cylinder form;
- Annual electricity and thermal energy consumption;
- Share of Air Liquide sites located in water stress areas;
- Frequency rate of serious avoidable accidents involving injuries;
- Frequency rate and number of accidents of subcontractors;
- Number of participants to the Learning Festival;
- Share of employees who participated in an internal engagement survey (My Voice) during the year;
- Share of women in total headcount;
- % of women among managers and professionals hired during the year;
- Share of women among employees considered as high potential;
- Gender Equality Index;
- Recruitment of young graduates for managers and professionals (M&Ps) positions;
- Number of nationalities among senior executives;
- Share of employees with disabilities;
- Score obtained by Seppic to the Sustainable Palm Index;
- Share of sites located near protected areas according to the IUCN's Key Biodiversity Areas (KBA);
- Share of employees exposed to corruption risks and who completed the online training module on corruption prevention;
- Number of policy breaches notified through the whistleblowing system;

Qualitative information (actions and results):

- Example of safety clauses in the contracts;
- Example of content of various communication, awareness-raising and training materials on vital safety rules provided by the Safety and Industrial Systems Department;
- Example of action plans aiming at bringing the most serious risks related to industrial processes under control;
- Focus groups aiming at promoting the work-life balance of employees;
- 2023-2025 roadmap to achieve the target set by a Hub to "offer common basic social coverage to all employees by 2025";
- Examples of projects supported and details of the support provided by Air Liquide employees within the framework of the Citizen at Work programme;
- Example of roadmap and diversity action plans implemented at hub and business level;
- EVE program for technicians;
- Example of awareness-raising plans [regarding disability] in order to strengthen the level of information for all players and fight against any prejudices that may persist;
- Elements to justify the 150,000 tonnes of CO₂ avoided, compared to existing processes, announced thanks to the implementation of Air Liquide's proprietary technology Cryocap™;
- Example of prospective scenarios used by the Group to guarantee its resilience going forward and feed its strategy;
- Example of decarbonation plans at cluster level;
- Document presenting the allocation of a carbon budget to the different geographical areas;
- Details on the two-day webinar organised by Climate Champions;
- Air Liquide and EQIOM are joining forces with the aim to transform EQIOM's Lumbres plant, in Northern France, into one of the first carbon-neutral cement plants in Europe;

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- Group operations that are regularly exposed to the acute risks described above have risk management systems in place aimed at adopting suitable preventive operational measures;
- Chronic risks are taken into account, particularly in the design of production units;
- A workshop gathering experts from various technical areas and several geographies was organized to identify material climate change related hazards; in parallel, a first assessment of available climate modelling tools has been conducted;
- Example of evaluation of the climate risk related to water and especially, the changes that could occur in terms of water availability during the life of the sites, for the hydrogen production activity;
- New technical standard regarding the sustainable monitoring and control of industrial wastewater;
- In 2022, Air Liquide has invested in and partnered with InOpsys, a Belgian scale-up that developed innovative technology to treat wastewater streams without discharging hazardous materials into the environment;
- In-depth review of Air Liquide value chain's impact on biodiversity;
- Seppic's action plan to reduce its biodiversity impacts;
- Mapping of corruption risks;
- Signature of the "Fiscal Partnership" with the French tax authorities.

7. Appendix

Link between Air Liquide's Sustainable Development indicators and the indicators of the Global Reporting Initiative (GRI)

GRI content index		
Statement of use	Air Liquide has reported the information cited in this GRI content index for the period from January 1st to December 31, 2022 with reference to the GRI Standards.	
GRI 1 used	GRI 1: Foundation 2021	
GRI Standard	Disclosure	Location in the 2022 Universal Registration Document
GRI 2: General Disclosures 2021	2-1 Organizational details	Chapter 7, p. 473
	2-2 Entities included in the organization's sustainability reporting	Chapter 5, p. 434
	2-3 Reporting period, frequency and contact point	Chapter 5, p. 436
	2-4 Restatements of information	Chapter 5, p. 359
	2-5 External assurance	Chapter 5, p. 436 - 440
	2-6 Activities, value chain and other business relationships	Chapter 1, p. 34 and 35
	2-7 Employees	Chapter 5, p. 430 and 431
	2-9 Governance structure and composition	Chapter 3, p. 132
	2-10 Nomination and selection of the highest governance body	Chapter 3, p. 132
	2-11 Chair of the highest governance body	Chapter 3, p. 135
	2-12 Role of the highest governance body in overseeing the management of impacts	Chapter 3, p. 158 and 159
	2-13 Delegation of responsibility for managing impacts	Chapter 3, p. 134
	2-14 Role of the highest governance body in sustainability reporting	Chapter 3, p. 158 and 159
	2-15 Conflicts of interest	Chapter 3, p. 139 - 144
	2-16 Communication of critical concerns	Chapter 3, p. 158
	2-17 Collective knowledge of the highest governance body	Chapter 3, p. 132 and 133
	2-18 Evaluation of the performance of the highest governance body	Chapter 3, p. 148
	2-19 Remuneration policies	Chapter 3, p.177 - 236
	2-20 Process to determine remuneration	Chapter 3, p.156 - 158
	2-21 Annual total compensation ratio	Chapter 3, p. 205 and 206
2-22 Statement on sustainable development strategy	Chapter 1, p. 38 and chapter 5, p. 342	
2-26 Mechanisms for seeking advice and raising concerns	Chapter 5, p. 388	
2-27 Compliance with laws and regulations	Chapter 5, p. 387	
2-28 Membership associations	Chapter 5, p. 421	
2-29 Approach to stakeholder engagement	Chapter 5, p. 395 and 396	
2-30 Collective bargaining agreements	Chapter 5, p. 399	

GRI 3: Material Topics 2021	3-1 Process to determine material topics	Chapter 5, p. 395 and 396
	3-2 List of material topics	Chapter 5, p. 395 and 396
	3-3 Management of material topics	Chapter 5, p. 395 and 396
GRI 201: Economic Performance 2016	201-1 Direct economic value generated and distributed	Chapter 4, p. 251
	201-2 Financial implications and other risks and opportunities due to climate change	Chapter 4, p. 309
	201-3 Defined benefit plan obligations and other retirement plans	Chapter 4, p. 265 and 289
	201-4 Financial assistance received from government	Chapter 4, p. 266
GRI 203: Indirect Economic Impacts 2016	203-1 Infrastructure investments and services supported	Chapter 1, p. 69 and 70
	203-2 Significant indirect economic impacts	Chapter 1, p. 66
GRI 205: Anti-corruption 2016	205-1 Operations assessed for risks related to corruption	Chapter 5, p. 387
	205-2 Communication and training about anti-corruption policies and procedures	Chapter 5, p. 387
	205-3 Confirmed incidents of corruption and actions taken	Chapter 5, p. 388
GRI 206: Anti-competitive Behavior 2016	206-1 Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	Chapter 4, p. 309
GRI 207: Tax 2019	207-1 Approach to tax	Chapter 2, p. 84 and 388
	207-2 Tax governance, control, and risk management	Chapter 2, p. 84 and 85
	207-3 Stakeholder engagement and management of concerns related to tax	Chapter 2, p. 84
GRI 302: Energy 2016	302-1 Energy consumption within the organization	Chapter 5, p. 429
	302-4 Reduction of energy consumption	Chapter 5, p. 429
GRI 303: Water and Effluents 2018	303-1 Interactions with water as a shared resource	Chapter 5, p. 368 - 371
	303-2 Management of water discharge-related impacts	Chapter 5, p. 369 and 370
	303-3 Water withdrawal	Chapter 5, p. 370
	303-4 Water discharge	Chapter 5, p. 370
	303-5 Water consumption	Chapter 5, p. 370
GRI 304: Biodiversity 2016	304-1 Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	Chapter 5, p. 373 and 374
	304-2 Significant impacts of activities, products and services on biodiversity	Chapter 5, p. 372
GRI 305: Emissions 2016	305-1 Direct (Scope 1) GHG emissions	Chapter 5, p. 354 and 425
	305-2 Energy indirect (Scope 2) GHG emissions	Chapter 5, p. 354 and 425
	305-3 Other indirect (Scope 3) GHG emissions	Chapter 5, p. 355 and 426
	305-4 GHG emissions intensity	Chapter 1, p. 65, chapter 5, p. 359 and 428
	305-5 Reduction of GHG emissions	Chapter 1, p. 65, chapter 5, p. 359 and 428
GRI 306: Waste 2020	305-7 Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	Chapter 5, p. 430
	306-1 Waste generation and significant waste-related impacts	Chapter 5, p. 430
	306-2 Management of significant waste-related impacts	Chapter 5, p. 430
	306-3 Waste generated	Chapter 5, p. 430
	306-4 Waste diverted from disposal	Chapter 5, p. 430
GRI 308: Supplier Environmental Assessment 2016	306-5 Waste directed to disposal	Chapter 5, p. 430
	308-1 New suppliers that were screened using environmental criteria	Chapter 2, p. 126 - 127 and chapter 5, p. 414 - 415
GRI 401: Employment 2016	401-1 New employee hires and employee turnover	Chapter 5, p. 430
	401-3 Parental leave	Chapter 5, p. 349

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GRI 403: Occupational Health and Safety 2018	403-1 Occupational health and safety management system	Chapter 5, p. 346 - 348
	403-2 Hazard identification, risk assessment, and incident investigation	Chapter 5, p. 347 and 348
	403-3 Occupational health services	Chapter 2, p. 108 - 114
	403-4 Worker participation, consultation, and communication on occupational health and safety	Chapter 5, p. 347
	403-5 Worker training on occupational health and safety	Chapter 5, p. 348
	403-6 Promotion of worker health	Chapter 5, p. 398
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	Chapter 5, p. 348
	403-8 Workers covered by an occupational health and safety management system	Chapter 5, p. 350
	403-9 Work-related injuries	Chapter 5, p. 423
GRI 404: Training and Education 2016	404-1 Average hours of training per year per employee	Chapter 5, p. 402 and 431
	404-2 Programs for upgrading employee skills and transition assistance programs	Chapter 5, p. 402 and 403
	404-3 Percentage of employees receiving regular performance and career development reviews	Chapter 5, p. 431
GRI 405: Diversity and Equal Opportunity 2016	405-1 Diversity of governance bodies and employees	Chapter 5, p. 351 - 353 and p. 430 - 431
GRI 406: Non-discrimination 2016	406-1 Incidents of discrimination and corrective actions taken	Chapter 5, p. 352
GRI 414: Supplier Social Assessment 2016	414-1 New suppliers that were screened using social criteria	Chapter 2, p. 126 - 127 and chapter 5, p. 414 - 415
GRI 415: Public Policy 2016	415-1 Political contributions	Chapter 5, p. 421



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BOARD OF DIRECTORS' REPORT ON THE RESOLUTIONS PRESENTED TO THE COMBINED GENERAL MEETING – MAY 3, 2023

Results for the fiscal year

The financial statements of L'Air Liquide S.A. that have been prepared by applying the methods provided for by law and the standards of the French General Chart of Accounts are attached to this report – pages 322 and 323.

Revenue for the fiscal year ended December 31, 2022, amounted to 97.5 million euros, compared to 96.7 million euros in 2021, up by +0.8%.

The income from French and foreign equity securities amounted to 414.1 million euros, compared to 795.3 million euros in 2021.

Net profit for the fiscal year ended December 31, 2022, amounted to 924.7 million euros, compared to 950.9 million euros in 2021.

In 2021 and 2022, L'Air Liquide S.A. net profit was impacted by exceptional items.

Consolidated revenue in 2022 amounted to 29,934.0 million euros, compared to 23,334.8 million euros in 2021, up +28.3%. After adjusting for the cumulative impact of foreign exchange fluctuations, revenue was up +22.5%. These currency impacts were mainly caused by the depreciation of the US dollar against the euro.

Consolidated net profit, after the deduction of minority interests, amounted to 2,758.8 million euros, compared to 2,572.2 million euros in 2021, up by +7.3% (up by +1.0% excluding foreign exchange impact).

These results are detailed in the Management Report and the Financial Statements.

Information on share capital

AMOUNT OF SHARE CAPITAL HELD BY EMPLOYEES

Please refer to the chapter “Additional Information” of this Universal Registration Document – page 469.

CROSSING OF SHARE CAPITAL AND VOTING RIGHTS THRESHOLDS IN 2022

Please refer to the chapter “Additional Information” of this Universal Registration Document – page 469.

Investments and acquisition of controlling interests

Pursuant to the provisions of article L. 233-6 of the French Commercial Code, L'Air Liquide S.A.:

- received the shares of Seppic (Société d'Exploitation de Produits pour les Industries Chimiques) following the dissolution without liquidation of its subsidiary Chemoxal into L'Air Liquide S.A.;
- acquired 100% of the share capital of Air Liquide Biogas Solutions International during the fiscal year;

- received 16.45% of the shares of Air Liquide Maritime following the contribution made under the preferential regime of articles 210 A and B of the French Tax Code (CGI) by Air Liquide France Industrie (ALFI) to Air Liquide Maritime. Pursuant to article 115-2 of the French Tax Code, the shares received by the contributing company (ALFI) were allocated free of charge to L'Air Liquide S.A. in consideration for this contribution.

Resolutions within the authority of the Ordinary General Meeting

We ask you, after having reviewed:

- the Reports of the Board of Directors;
- the Company's Financial Statements, income statement, balance sheet and notes thereto;
- the Group's Consolidated Financial Statements;
- the Reports of the Statutory Auditors,

to approve the Company's financial statements and the consolidated financial statements for the year ended December 31, 2022 as presented, as well as the transactions set out in these financial statements or mentioned in these reports.

Your Company's net profit allows the Board to propose the payment of a dividend of 2.95 euros for each share entitled to a dividend, it being specified that in the event of a change in the number of shares entitled to a dividend compared to the 523,450,271 shares making up the share capital as of December 31, 2022, the overall dividend amount would be adjusted accordingly and the amount appropriated to the retained earnings account would be determined on the basis of the dividends effectively paid.

The proposed dividend is 2.95 euros per share, representing an increase of +12.2% compared to 2021. The level of this dividend should be assessed taking into account the allocation of one free share for 10 existing shares on June 8, 2022.

The ex-dividend date will be set for May 15, 2023. The dividend payment date will be set for May 17, 2023.

In accordance with article 117 quater of the French Tax Code, it is specified that ordinary and loyalty dividends paid to individuals with their tax residence in France are fully subject to the single flat-rate withholding tax of 12.8%. Nonetheless, at the express,

irrevocable and global request of the Shareholder, these dividends may be subject to the progressive income tax rate and shall therefore be eligible for the 40% allowance referred to in section 2° of paragraph 3 of article 158 of the French Tax Code, which is applicable under certain conditions. In all cases, these ordinary and loyalty dividends shall also be subject to social contributions at a rate of 17.2%.

In addition, Shareholders who have held their shares in registered form for at least two years as of December 31, 2022, and who retain such shares in registered form up to the dividend payment date, shall be entitled, for such shares (i.e. a total number of 149,161,232 shares at December 31, 2022), to a loyalty dividend of 10% compared with the dividend paid to the other shares, i.e. an additional dividend of 0.29 euros per share.

The difference between the loyalty dividend calculated on the number of shares known to exist at December 31, 2022, and the loyalty dividend actually paid will be allocated to the retained earnings account.

We also ask you to take due note of distributable earnings for the fiscal year. Such amount includes profits for fiscal year 2022 of 924,659,026 euros plus available retained earnings at December 31, 2022, of 4,356,827,596 euros, i.e. a total of 5,281,486,622 euros.

We propose to appropriate the distributable earnings for fiscal year 2022, i.e. 5,281,486,622 euros, as follows:

Legal reserve	26,487,579 euros
Retained earnings	3,667,563,986 euros
Dividend (including the loyalty dividend)	1,587,435,057 euros

Distribution

In accordance with French law, we wish to remind you that the distributions made in respect of the last three fiscal years were as follows:

	Total amount distributed ^(a) (in euros)	Number of shares concerned ^(b)	Dividend distributed eligible in its entirety for the 40% deduction referred to in article 158-3-2° of the French Tax Code ^(c) (in euros)
Fiscal year 2019			
Ordinary dividend	1,277,384,888	473,105,514	2.70
Loyalty dividend	36,221,817	134,154,877	0.27
Fiscal year 2020			
Ordinary dividend	1,302,566,991	473,660,724	2.75
Loyalty dividend	35,573,380	131,753,261	0.27
Fiscal year 2021			
Ordinary dividend	1,378,344,007	475,291,037	2.90
Loyalty dividend	39,148,116	134,993,503	0.29

(a) Theoretical values calculated based on the number of shares as of December 31 for each fiscal year.

(b) Number of shares expressed historically as of December 31 for each fiscal year.

The amounts effectively paid after adjustment were as follows:

– fiscal year 2019 – ordinary dividend: 1,273,544,632 euros for 471,683,197 shares; loyalty dividend: 36,437,830 euros for 134,954,926 shares;

– fiscal year 2020 – ordinary dividend: 1,298,589,273 euros for 472,214,281 shares; loyalty dividend: 37,480,931 euros for 138,818,263 shares;

– fiscal year 2021 – ordinary dividend: 1,372,465,400 euros for 473,263,931 shares; loyalty dividend: 39,396,398 euros for 135,849,648 shares.

The adjustment especially arises from the change in the number of treasury shares, from the final determination of the loyalty dividend taking into account shares sold between January 1 and the ex-dividend date, from the exercise of options over this same period and the capital increase reserved for employees.

(c) Applicable, under certain conditions, when the progressive income tax rate is applied.

Buyback by the Company of its own shares

A. Information on the completion of the Company's share buyback program (pursuant to article L. 225-211 of the French Commercial Code)

The Combined General Meeting of May 4, 2022 authorized the Board, for a period of 18 months, in accordance with articles L. 22-10-62 et seq. of the French Commercial Code and the directly applicable provisions of EC Regulation No. 596/2014 of April 16, 2014, to allow the Company to repurchase its own shares in order to:

- cancel them;
- tender them following the exercise of rights attached to marketable securities conferring entitlement to Company shares by redemption, conversion, exchange, presentation of a warrant or any other means;
- implement (i) any share purchase option plans or (ii) plans for free share attributions, or (iii) any employee share ownership transactions reserved for members of a Company Savings Plan, performed through the transfer of shares acquired previously by the Company, or providing for a free share grant in respect of a contribution in shares by the Company and/or to replace the discount, or (iv) allocation of shares to employees and/or Executive Officers of the Company and affiliated companies, in accordance with the laws and regulations in force;
- maintain an active market in the Company's shares pursuant to a market liquidity contract in accordance with an Ethics Charter recognized by the French financial market authority (Autorité des Marchés Financiers).

The buyback by the Company of its own shares was also intended to enable the implementation of any market practice permitted by the French financial market authority and, more generally, the achievement of any other transaction which would comply with the regulations in force.

The maximum purchase price was set at 250 euros per share, and the maximum number of shares that can be bought back was set at 10% of the total number of shares making up the share capital as of December 31, 2021, namely 47,529,103 shares for a maximum total amount of 11,882,275,750.00 euros, subject to the legal limits.

These shares may be purchased at any time, excluding the periods for takeover bids on the Company's share capital, on one or more occasions and by all available means, either on or off a stock exchange, over-the-counter, including the purchase of blocks of shares, or through the use of derivative financial instruments, and, if applicable, by all third parties acting on behalf of the Company, under the conditions stipulated in the provisions of the final paragraph of article L. 225-206 of the French Commercial Code.

Pursuant to this authorization and the previous delegation authorized by the Combined General Meeting of May 4, 2021,

- pursuant to the liquidity contract, the following movements occurred:
 - 856,875 shares were purchased for a total price of 120,801,707 euros, or an average purchase price of 140.98 euros,
 - 854,080 shares were sold for a total price of 120,776,178 euros, or an average purchase price of 141.41 euros;
- on March 23, 2022, under the share buy-back program, 1,200,000 shares were bought back for a total amount of 190,783,440.00 euros, i.e. an average price of 158.99 euros per share, representing 0.25% of the share capital as of 31 décembre 2021.

No other shares were bought before the end of fiscal year 2022.

The total cost of the buybacks was thus limited to 190,783,440.00 euros.

The total amount of the transaction fees (exclusive of taxes) was 0.2 million euros.

- In addition, during the fiscal year, the Company proceeded to the tender of treasury shares to beneficiaries of performance share plans as follows:
 - 251,577 shares vested under the 2018 performance share plan ("World" Plan),
 - 105,462 shares vested under the 2019 performance share plan ("France" Plan).

As of December 31, 2022, the Company directly owned 951,833 shares at an average purchase price of 121.07 euros, i.e. a balance sheet value of 115,241,373 euros. These shares, each with a par value of 5.50 euros, represent 0.18% of the Company's share capital.

The 951,833 treasury shares are fully assigned for implementation of any performance share plans or employee shareholding operations.

Under the liquidity contract, as of December 31, 2022, a total of 10,500 shares were on the balance sheet for a net value of 1,404,536 euros.

B. Draft resolution

As the authorization granted by the Ordinary General Meeting of May 4, 2022 was partially used, the Board proposes to replace it with a new authorization to allow the Company to repurchase its own shares in order to:

- cancel them, subject to the adoption of the eighteenth resolution;
- tender them following the exercise of rights attached to marketable securities conferring entitlement to Company shares by redemption, conversion, exchange, presentation of a warrant or any other means;
- implement (i) any share purchase option plans or (ii) plans for free share attributions, or (iii) any employee share ownership transactions reserved for members of a Company Savings Plan, performed under the terms and conditions set forth in articles L. 3331-1 et seq. of the French Labor Code through the transfer of shares bought back previously by the Company under this resolution, or providing for free share attributions in respect of a contribution in shares by the Company and/or to replace the discount, or (iv) share grants to employees and/or Executive Officers of the Company or affiliated companies;
- maintain an active market in the Company's shares pursuant to a liquidity contract in accordance with the market practice recognized by the French financial market authority.

The buy-back by the Company of its own shares shall be also intended to enable the implementation of any market practice permitted by the French financial market authority and, more generally, the achievement of any other transaction which would comply with the regulations in force. In this case, the Company would inform its Shareholders by means of a press release.

The maximum purchase price will be set at 250 euros (excluding acquisition costs) per share with a par value of 5.50 euros, and the maximum number of shares that can be bought back will be set at 10% of the total number of shares making up the share capital as of December 31, 2022, or 52,345,027 shares with a par value of 5.50 euros, for a maximum total amount of 13,086,256,750 euros, subject to the legal limits.

As in previous years, the resolution stipulates that the authorization does not apply during takeover bid periods. These shares may thus be purchased at any time, excluding the periods for takeover bids on the Company's share capital, on one or more occasions and by all available means, either on or off a stock exchange, over-the-counter, including the purchase of blocks of shares, or through the use of derivative financial instruments, and, if applicable, by all third parties acting on behalf of the Company, under the conditions stipulated in the provisions of the final paragraph of article L. 225-206 of the French Commercial Code.

Shares bought back may be commuted, assigned or transferred in any manner on or off a stock exchange or over-the-counter, including the sale of blocks of shares, in accordance with the applicable regulations.

As own shares do not confer entitlement to a dividend, the amount of the unpaid dividends will be allocated to retained earnings.

This authorization shall be granted for a period of 18 months starting from the date of this General Meeting. It shall be valid as of the date of the Board of Directors meeting called to decide on the implementation of the share buyback program and, at the latest, as of November 4, 2023. It supersedes the authorization granted by the Ordinary General Meeting of May 4, 2022, in its fourth resolution with respect to its non-utilized portion.

Appointment of four Directors and Ratification of the temporary appointment of one Director

The Board of Directors currently comprises twelve members: nine members appointed by the General Meeting and one member co-opted by the Board, including four foreign nationals and five women (i.e. 50%), and two Directors representing the employees. The percentage of independent Directors is 80%.

The terms of office of Ms Siân Herbert-Jones and Ms Geneviève Berger expire at the end of this Meeting.

On the recommendation of the Appointments and Governance Committee, the Board took note of the wishes of Ms Siân Herbert-Jones and Ms Geneviève Berger not to be candidates for the renewal of their respective terms of office. Ms Siân Herbert-Jones was warmly thanked for her contribution, during her 12 years in office, to the work of the Board of Directors and for her very active involvement in the Audit and Accounts Committee, of which she was a member since 2013 and chaired since May 2015. Ms Geneviève Berger was warmly thanked for her contribution to the work of the Board of Directors since 2015, as well as her participation in the Environment and Society Committee, of which she was a member since its creation in 2017.

Your Board of Directors also decided, on the recommendation of the Appointments and Governance Committee, in accordance with the selection procedure conducted by the latter, to propose the appointment of four new Directors. These proposals are in line with the Board's diversity policy, aimed in particular at reflecting the Group's international character and its diversity of cultures and nationalities, and having a range of complementary skills and expertise, both sectoral and cross-functional (particularly financial and CSR). Thus, under the terms of the 5th, 6th, 7th and 8th resolutions, it is proposed that you appoint as Directors, for terms of four years, Ms Catherine Guillouard, Ms Christina Law, Mr Alexis Perakis-Valat and Mr Michael H. Thaman.

Ms Catherine Guillouard, former Chairwoman and Chief Executive Officer of RATP until September 2022 and previously Chief Financial Officer and Deputy Chief Executive Officer of Rexel, Chief Financial Officer of Eutelsat and Air France, will bring to the Board her extensive financial skills as well as her experience as an executive in a major public transport group, where she led the transformation and decarbonization plan.

Ms Christina Law, a Chinese national (Hong Kong) and based in Singapore, will bring to the Board her in-depth knowledge of Asian markets, and her managerial experience in large international groups specializing in the fields of healthcare and treatment.

President of the Consumer Products Division of the L'Oréal group, the group's main division, Mr Alexis Perakis-Valat will bring to the Board his knowledge of consumer product markets and his managerial experience within a leading international group, where he has been one of the driving forces behind major transformations carried out in recent years.

An American national, Mr Michael H. Thaman has extensive knowledge of North American industrial markets as well as a strong international profile. He brings nearly 30 years of experience, including 13 years as Chairman and Chief Executive Officer, and 18 years as Executive Chairman of Owens Corning, a world leader in construction materials and one of the highest-rated American groups on environmental and societal criteria, and his experience as a Director in other major global listed US groups, particularly in the field of renewable energies.

In addition, your Board took note of the resignation, on January 3, 2023, of Ms Anette Bronder, Director since May 2020, due to her wish to take an executive position with an audit firm, which is incompatible with the maintenance of her office as a Director of L'Air Liquide S.A. The Appointments and Governance Committee conducted a selection process with the support of an external firm. At the end of this process, the Board of February 15, 2023, on the recommendation of the Committee, appointed, by way of co-option (within the meaning of Article 225-24 of the French Commercial Code) for the remaining term of office of Ms Anette Bronder, i.e. until the end of the 2024 General Meeting, Ms Monica de Virgiliis ⁽¹⁾ as a Director of the Company. An Italian and French national, Ms Monica de Virgiliis will bring to the Board her experience of more than 15 years in the Electronics business, her skills in the field of technology and energy, and her commitment to energy transition. Under the terms of the 9th resolution, you are asked to ratify this co-option.

The Board considers that the members proposed to the vote are independent and have the required availability. At the end of this General Meeting, subject to approval by the General Meeting of all the resolutions, the Board of Directors would therefore comprise fourteen members: twelve members appointed by the General Meeting, most of whom are independent (i.e. 83% independent Directors), including five women (i.e. 42%), five foreign nationals and two Directors representing the employees.

⁽¹⁾ In order to take into account the policy of certain investors, Ms Monica de Virgiliis, who is Chairwoman of SNAM and whose nomination as Director of Georg Fischer will be proposed on April 2023, announced that she would not seek the renewal of her term of office as a member of the Supervisory Board of ASM when it expires in May 2024 (see individual profile p. 176).

NB : It is reminded, for all purposes, that Ms. Catherine Guillouard, who is Director and Chairwoman of the Audit Committee of Airbus (as well as Chairwoman of Ingenico, a now unlisted company) will have only one other mandate in a listed company on May 3, 2023 (as she will step down from her mandate as member of the Supervisory Board of KPN on April 2023) (see individual profile p. 172).

Regulated agreements

During the 2022 fiscal year, no new regulated agreements were submitted for the prior approval of the Board of Directors.

As provided by law, the Board of Directors carried out an annual review of agreements approved and concluded during previous fiscal years which continued to be applied during the year ended December 31, 2022.

In the 10th resolution, you are asked to take note of the fact that the Statutory Auditors' Special Report on regulated agreements does not mention any new agreements.

The Special Report is included in chapter 6 of the 2022 Universal Registration Document.

Approval of the remuneration of Company Officers paid or awarded in respect of the 2022 fiscal year

Pursuant to article L. 22-10-34 II of the French Commercial Code, Shareholders are asked:

- in the 11th resolution to approve the fixed, variable and exceptional components of the total remuneration and other benefits paid in 2022 or awarded in respect of the 2022 fiscal year (for the period from January 1, 2022 to May 31, 2022) to Mr Benoît Potier as Chairman and Chief Executive Officer. It is specified that no LTI or exceptional remuneration were paid or awarded in 2022.
- in the 12th resolution to approve the fixed, variable and exceptional components of the total remuneration and other benefits paid in 2022 or awarded in respect of the 2022 fiscal year (for the period from June 1, 2022 to December 31, 2022) to Mr François Jackow as Chief Executive Officer. It is specified that no exceptional remuneration was paid or awarded in 2022.
- in the 13th resolution to approve the fixed, variable and exceptional components of the total remuneration and other benefits paid in 2022 or awarded in respect of the 2022 fiscal year (for the period from June 1, 2022 to December 31, 2022) to Mr Benoît Potier as Chairman of the Board of Directors. It is specified that **no variable remuneration**, LTI or exceptional remuneration were paid or awarded in 2022.

These components of remuneration are described in the Report on Corporate Governance included in chapter 3 of the 2022 Universal Registration Document and are summarized in the 2023 Invitation to the Annual General Meeting. They were paid or awarded in line with the remuneration policy approved by the General Meeting on May 4, 2022.

Approval of information relating to the remuneration of corporate officers stated in article L. 22-10-9-I of the French Commercial Code

Pursuant to article L. 22-10-34-I of the French Commercial Code, Shareholders are invited to approve the 14th resolution on information relating to the remuneration of the Company's corporate officers (the Chairman and Chief Executive Officer for the period from January 1, 2022 to May 31, 2022, the Chief Executive Officer for the period from June 1, 2022 to December 31, 2022, and the Chairman of the Board of Directors for the period from June 1, 2022 to December 31, 2022, and the Directors) listed in article L. 22-10-9-I of the French Commercial Code.

This information notably includes elements which establish the link between the Executive Officer's remuneration (in respect of the appropriate period) and the Company's performance, as well as communication of remuneration ratios, both on the legal scope and on an expanded scope.

This information is described in the Report on Corporate Governance included in chapter 3 of the 2022 Universal Registration Document.

Approval of the remuneration policy applicable to corporate officers

Pursuant to article L. 22-10-8 II of the French Commercial Code, Shareholders are invited to approve the remuneration policy applicable to corporate officers.

The elements of this policy, including the remuneration policy for Executive Officers and non-executive Officers, their application to each Company Officer and the policy applicable to Directors, are described in the Report on Corporate Governance in chapter 3 of the 2022 Universal Registration Document, in the section entitled "Remuneration policy applicable to corporate officers" and summarized in the 2023 Invitation to the Annual General Meeting.

The approval of the remuneration policy is the subject of the 15th resolution for the **Chief Executive Officer** (applicable to Mr François Jackow), the 16th resolution for the **Chairman of the Board of Directors** (applicable to Mr Benoît Potier) and the 17th resolution for the Company's **Directors**.

Resolutions within the authority of the Extraordinary General Meeting

Authorization to reduce the share capital by cancellation of treasury shares

As is the case each year, we ask you, in the 18th resolution, to authorize the Board of Directors to cancel any or all of the shares purchased in the share buyback program and reduce share capital under certain conditions, particularly in order to fully offset, where necessary, any potential dilution resulting from capital increases relating to employee share ownership transactions.

The difference between the carrying amount of the canceled shares and their nominal amount will be allocated to reserve or additional paid-in capital accounts.

This authorization granted to the Board of Directors will be for a period of 24 months.

Capital increase through the issue of ordinary shares or securities giving access to the share capital with retention of preferential subscription rights

To ensure the financing of the Group's growth investments, the 19th resolution invites you to renew the delegation allowing the Board of Directors to increase the share capital by a maximum nominal amount of 470 million euros, corresponding to approximately 16% of the share capital as of December 31, 2022, by issuing, on one or more occasions, ordinary shares or dilutive compound marketable securities. Shareholders shall have, in proportion to the number of shares they hold, a preferential subscription right to the shares or the marketable securities thus issued.

The Group did not make use of the previous authorization granted by the Extraordinary General Meeting of May 4, 2021.

This delegation is valid for a period of 26 months.

The total amount of the share capital increases that may be carried out under the 20th resolution below and resolutions allowing employees and Company Officers to benefit from shares (20th and 21st resolutions of the Extraordinary General Meeting of May 4, 2022) and resolutions allowing the implementation of employees share ownership transactions (21st and 22nd resolutions submitted to this General Meeting, subject to their approval) will also be deducted from this limit of 470 million euros.

As in 2021, in order to provide Shareholders with the right to express an opinion on the issues that are the subject of this delegation during periods of takeover bids, it is proposed that this delegation of authority be suspended during periods of takeover bids.

In the event of oversubscription, the 20th resolution allows the amount of the issue initially provided for to be increased by a maximum of 15% (legal limit), subject to a maximum of 470 million euros.

Capital increase reserved for employees with cancellation of Shareholder preferential subscription rights

In accordance with legal provisions, these draft resolutions are submitted again to the vote at the General Meeting. The two resolutions proposed to the General Meeting are identical to those approved on May 4, 2022.

Shareholders, having read the Board of Directors' Report and the Statutory Auditors' Special Report, are therefore asked to authorize the Board of Directors to decide one or more share capital increases, at the time or times and in the proportions that it deems appropriate, via the issuance of ordinary shares of the Company, as well as other marketable securities granting access to the Company's share capital, reserved for:

- under the 21st resolution, the members, from the Company and the French or foreign companies which are affiliated to it within the meaning of article L. 225-180 of the French Commercial Code and article L. 3344-1 of the French Labor Code, of a Company or Group Savings Plan (directly or through a Company mutual fund or any other structures or entities permitted by applicable legal or regulatory provisions). The delegation shall be valid for a period of 26 months starting from the date of this General Meeting;
- under the 22th resolution, a category of beneficiaries, defined as any bank or subsidiary of such an institution mandated by the Company, which would subscribe to shares, or other share capital issued by the Company pursuant to the 22nd resolution, with the sole intent of enabling employees and corporate officers of foreign companies, affiliated to the Company within the meaning of article L. 225-180 of the French Commercial Code and article L. 3344-1 of the French Labor Code, to benefit from a plan with an economic profile comparable to an employee share ownership scheme that would be set up in connection with a share capital increase undertaken in accordance with the 21st resolution of this General Meeting, taking into account the regulatory and fiscal and/or social framework applicable in the country of residence of the employees and corporate officers of the aforementioned foreign companies. The delegation shall be valid for a period of 18 months starting from the date of this General Meeting.

The Board of Directors shall be competent to determine, within those categories, the identity of the beneficiaries of these share capital increases.

The total amount of share capital increases likely to be performed in accordance with these two resolutions may not exceed a maximum nominal amount of 22 million euros, corresponding to the issue of a maximum of 4 million shares. Furthermore, the maximum nominal amount of share capital increases likely to be performed on the basis of these two resolutions shall be deducted from the overall limit stipulated in paragraph 2 of the 19th resolution of this Extraordinary General Meeting. In the event that they are used, the proposed resolutions will automatically result in the cancellation of the Shareholders' preferential subscription rights in favor of the above-mentioned beneficiaries.

The subscription price of the shares that would be issued pursuant to these two resolutions may not exceed the average, determined in accordance with article L. 3332-19 of the French Labor Code, of the opening trading prices for the Company's share during the 20 stock market trading days preceding the date of the decision setting the opening date for the subscription to a share capital increase made on the basis of the 21st resolution, or be more than 20% lower than such average, bearing in mind that the General Meeting will officially authorize the Board of Directors, if deemed appropriate, to reduce or cancel the aforementioned discount, within the legal, regulatory and tax limits under the

applicable foreign law. In accordance with article L. 3332-21 of the French Labor Code, the Board of Directors may provide for the attribution, on a bonus basis, to the beneficiaries referred to in the 21st resolution, of shares to be issued or already issued or other marketable securities granting access to the Company's share capital to be issued or already issued, in respect of (i) the contribution that could be paid in accordance with the regulations governing Company or Group Saving Plans, and/or (ii) where appropriate, the discount.

Should the beneficiaries referred to in the 21st resolution not subscribe to the entire share capital increase within the allotted deadlines, the share capital increase would only be performed for the amount of the shares subscribed, and the non-subscribed shares may be offered again to the beneficiaries concerned within the scope of a subsequent share capital increase.

Finally, the General Meeting shall grant full powers to the Board of Directors, with the option of sub-delegation under the conditions determined by law, to set, within the limits described above, the various terms and conditions governing the implementation of the two proposed resolutions.

RESOLUTIONS PRESENTED FOR THE APPROVAL OF THE COMBINED GENERAL MEETING – MAY 3, 2023

Ordinary General Meeting

Resolutions 1 and 2 Approval of the financial statements for the year

Purpose

Shareholders are asked in the **1st and 2nd resolutions** to approve both the Company and consolidated financial statements of Air Liquide for the fiscal year ended December 31, 2022, as presented in chapter 4 of the 2022 Universal Registration Document.

First Resolution

(Approval of the Company financial statements for the fiscal year ended December 31, 2022)

The General Meeting, deliberating according to the quorum and majority required for Ordinary General Meetings, having noted:

- the Reports of the Board of Directors and the Statutory Auditors;
- the Company's Financial Statements, income statement, balance sheet and notes thereto;

approves the Company financial statements for the year ended, December 31, 2022 as presented, and approves the transactions reflected in these financial statements or mentioned in these reports.

The General Meeting determines the amount of net earnings for the fiscal year to be 924,659,026 euros.

Second Resolution

(Approval of the consolidated financial statements for the fiscal year ended December 31, 2022)

The General Meeting, deliberating according to the quorum and majority required for Ordinary General Meetings, having noted:

- the Reports of the Board of Directors and the Statutory Auditors;
- the Group's Consolidated Financial Statements;

approves the consolidated financial statements for the year ended, December 31, 2022, as presented.

Resolution 3 Appropriation of earnings and setting of the dividend

Purpose

In the **3rd resolution**, the Board of Directors proposes that you approve the distribution of a dividend of **2.95 euros per share**. Following the allocation to Shareholders of one free share for every 10 shares held on June 8, 2022, the proposed dividend shows a strong growth of **+12.2%** compared with the previous year.

A loyalty dividend of 10%, i.e. **0.29 euros** per share, shall be granted to shares which have been held in registered form since December 31, 2020 and which remain held in this form continuously until May 17, 2023, the dividend payment date. As of December 31, 2022, 28.50% of the shares making up the share capital are likely to benefit from this loyalty dividend.

With an estimated pay-out ratio of 58% of the Group's published net profit, the proposed dividend is an integral part of Air Liquide's policy to reward and grow Shareholder portfolios over the long term.

The ex-dividend date will be set for **May 15, 2023**. The dividend payment date will be set for **May 17, 2023**.

Third Resolution

(Appropriation of 2022 earnings; setting of the dividend)

The General Meeting, deliberating according to the quorum and majority required for Ordinary General Meetings, having noted that, considering the fiscal year 2022 earnings of 924,659,026 euros and the retained earnings of 4,356,827,596 euros as of December 31, 2022, distributable earnings for the fiscal year amount to a total of 5,281,486,622 euros, approves the proposals of the Board of Directors regarding the appropriation of earnings. The General Meeting hereby decides to appropriate distributable earnings as follows:

Legal reserve	26,487,579 euros
Retained earnings	3,667,563,986 euros
Dividend (including the loyalty dividend)	1,587,435,057 euros

Hence, a dividend of 2.95 euros shall be paid to each of the shares conferring entitlement to a dividend, it being specified that in the event of a change in the number of shares conferring entitlement to a dividend compared to the 523,450,271 shares making up the share capital as of December 31, 2022, the overall dividend amount would be adjusted accordingly and the amount appropriated to the retained earnings account would be determined on the basis of the dividend effectively paid.

The dividend payment date will be set for May 17, 2023:

- for direct registered shares: directly by the Company;
- for intermediary registered shares, as well as for bearer shares which are registered in Shareholder accounts: by the authorized intermediaries to whom the management of these shares has been entrusted.

The dividend distributions made with respect to the last three fiscal years are as follows:

	Total amount distributed ^(a) (in euros)	Number of shares concerned ^(b)	Dividend distributed eligible in its entirety for the 40% deduction referred to in article 158-3-2° of the French Tax Code ^(c) (in euros)
Fiscal year 2019			
Ordinary dividend	1,277,384,888	473,105,514	2.70
Loyalty dividend	36,221,817	134,154,877	0.27
Fiscal year 2020			
Ordinary dividend	1,302,566,991	473,660,724	2.75
Loyalty dividend	35,573,380	131,753,261	0.27
Fiscal year 2021			
Ordinary dividend	1,378,344,007	475,291,037	2.90
Loyalty dividend	39,148,116	134,993,503	0.29

(a) Theoretical values calculated based on the number of shares as of December 31 for each fiscal year.

(b) Number of shares expressed historically as of December 31 for each fiscal year.

The amounts effectively paid after adjustment were as follows:

– fiscal year 2019 – ordinary dividend: 1,273,544,632 euros for 471,683,197 shares; loyalty dividend: 36,437,830 euros for 134,954,926 shares;

– fiscal year 2020 – ordinary dividend: 1,298,589,273 euros for 472,214,281 shares; loyalty dividend: 37,480,931 euros for 138,818,263 shares;

– fiscal year 2021 – ordinary dividend: 1,372,465,400 euros for 473,263,931 shares; loyalty dividend: 39,396,398 euros for 135,849,648 shares.

The adjustment especially arises from the change in the number of treasury shares, from the final determination of the loyalty dividend taking into account shares sold between January 1 and the ex-dividend date, from the exercise of options over this same period and the capital increase reserved for employees.

(c) Applicable, under certain conditions, when the progressive income tax rate is applied.

Pursuant to the provisions of the articles of association, a loyalty dividend of 10%, i.e. 0.29 euros per share with a par value of 5.50 euros, shall be granted to shares which have been held in registered form since December 31, 2020, and which remain held in this form continuously until May 17, 2023 the dividend payment date.

In accordance with article 117 quater of the French Tax Code, it is specified that ordinary and loyalty dividends paid to individuals with their tax residence in France are fully subject to the single flat-rate withholding tax of 12.8%. Nonetheless, at the express, irrevocable and global request of the Shareholder, these dividends may be subject to the progressive income tax rate and shall therefore be eligible for the 40% allowance referred to in section 2° of paragraph 3 of article 158 of the French Tax Code, which is applicable under certain conditions. In all cases, these ordinary and loyalty dividends shall also be subject to social contributions at a rate of 17.2%.

The total amount of the loyalty dividend for the 149,161,232 shares which have been held in registered form since December 31, 2020, and which remained held in this form continuously until December 31, 2022, amounts to 43,256,757 euros.

The total loyalty dividend corresponding to those of the 149,161,232 shares that cease to be held in registered form between January 1, 2023 and the May 17, 2023 dividend payment date, shall be deducted from the aforementioned amount.

Resolution 4 Buyback by the Company of its own shares

Purpose

The 4th resolution renews the authorization granted to the Board of Directors, for a term of 18 months, to allow the Company to buy back its own shares (including under a liquidity contract). The objectives of the share buyback program are detailed below in the 4th resolution and the buyback program description included in the 2022 Universal Registration Document available on the Company's website, www.airliquide.com, prior to the General Meeting.

In 2022, the buyback program resulted in the purchase of 1,200,000 shares, representing 0.25% of the capital at December 31, 2021, and the cancellation of 1,098,900 shares. Over the past 10 years, share buybacks have represented on average less than 0.5% of the share capital per year.

Additionally, under the liquidity contract: 856,875 shares were purchased and 854,080 were sold in fiscal year 2022. As of December 31, 2022, 10,500 shares were held under the liquidity contract.

As of December 31, 2022, the Company directly owned 951,833 shares, fully assigned to the objective of implementation of any performance share plans. These shares represent 0.18% of the Company's share capital. They do not have any voting rights and their related dividends are allocated to retained earnings.

The authorization referred to in the 4th resolution provides that the maximum purchase price is set at 250 euros per share and the maximum number of shares that can be bought back is limited to 10% of the total number of shares comprising the share capital as of December 31, 2022, i.e. 52,345,027 shares, for a maximum total amount of 13,086,256,750 euros.

In keeping with previous practices, the Board of Directors intends to use this authorization for the purpose of employee share ownership transactions, in particular for the purpose of performance share plans in favor of employees and Executive Officers. Subject to the approval of the 18th resolution, treasury shares may also be canceled to offset, in the long term, the dilutive impact resulting from capital increases relating to employee share ownership transactions.

The Board also intends to maintain the liquidity contract in place, in accordance with the French financial market authority regulations.

As in previous years, the resolution stipulates that the authorization does not apply during takeover bid periods.

Fourth Resolution

(Authorization granted to the Board of Directors for a period of 18 months to allow the Company to trade in its own shares)

The General Meeting, deliberating according to the quorum and majority required for Ordinary General Meetings, after having noted the Report of the Board of Directors, in accordance with articles L. 22-10-62 et seq. of the French Commercial Code and the directly applicable provisions of European Commission Regulation No. 596/2014 of April 16, 2014, authorizes the Board of Directors to allow the Company to repurchase its own shares in order to:

- cancel them, subject to the adoption of the eighteenth resolution;
- tender them following the exercise of rights attached to marketable securities conferring entitlement to Company shares by redemption, conversion, exchange, presentation of a warrant or any other means;
- implement (i) any share purchase option plans or (ii) plans for free share attributions, or (iii) any employee share ownership transactions reserved for members of a Company Savings Plan, performed under the terms and conditions set forth in articles L. 3331-1 et seq. of the French Labor Code through the transfer of shares bought back previously by the Company under this resolution, or providing for free share attributions in respect of a contribution in shares by the Company and/or to replace the discount, or (iv) share grants to employees and/or Executive Officers of the Company or affiliated companies;
- maintain an active market in the Company's shares pursuant to a liquidity contract in accordance with the market practice recognized by the French financial market authority.

The buy-back by the Company of its own shares shall be also intended to enable the implementation of any market practice permitted by the French financial market authority and, more generally, the achievement of any other transaction which would comply with the regulations in force. In this case, the Company would inform its Shareholders by means of a press release.

The General Meeting sets the maximum purchase price at 250 euros (excluding acquisition costs) per share with a par value of 5.50 euros and the maximum number of shares that can be bought back at 10% of the total number of shares comprising the share capital at December 31, 2022, i.e. 52,345,027 shares with a par value of 5.50 euros, for a maximum total amount of 13,086,256,750 euros, subject to the legal limits.

These shares may be purchased at any time, excluding the periods for takeover bids on the Company's share capital, on one or more occasions and by all available means, either on or off a stock exchange, over-the-counter, including the purchase of blocks of shares, or through the use of derivative financial instruments, and, if applicable, by all third parties acting on behalf of the Company, under the conditions stipulated in the provisions of the final paragraph of article L. 225-206 of the French Commercial Code.

Shares bought back may be commuted, assigned or transferred in any manner on or off a stock exchange or over-the-counter, including the sale of blocks of shares, in accordance with the applicable regulations.

As own shares do not confer entitlement to a dividend, the amount of the unpaid dividends will be allocated to retained earnings.

This authorization is granted for a period of 18 months starting from the date of this General Meeting. It shall be valid as of the date of the Board of Directors' meeting called to decide on the implementation of the share buyback program and, at the latest, as of November 4, 2023. With effect from this date, it supersedes the authorization granted by the fourth resolution of the Ordinary General Meeting of May 4, 2022, with respect to the non-utilized portion of such authorization.

The General Meeting gives full powers to the Board of Directors, with the possibility of sub-delegating such powers, to implement

this authorization, place orders for trades, enter into all agreements, perform all formalities and make all declarations with regard to all authorities and, generally, do all that is necessary for the execution of any of the Board's decisions made in connection with this authorization.

The Board of Directors shall inform the General Meeting of any transactions performed in light of this authorization in accordance with applicable regulations.

Resolutions 5 to 9 Renewal of the term of office of four Directors; Ratification of the temporary appointment of one Director

Purpose

The Board of Directors currently comprises twelve members: nine members appointed by the General Meeting and one member co-opted by the Board on February 15, 2023, including four foreign nationals and five women (i.e. 50%), and two Directors representing the employees. The percentage of independent Directors is 80%.

The terms of office of Ms Siân Herbert-Jones and Ms Geneviève Berger expire at the end of this Meeting.

On the recommendation of the Appointments and Governance Committee, the Board took note of the wishes of Ms Siân Herbert-Jones and Ms Geneviève Berger not to be candidates for the renewal of their respective terms of office. Ms Siân Herbert-Jones was warmly thanked for her contribution, during her 12 years in office, to the work of the Board of Directors and for her very active involvement in the Audit and Accounts Committee, of which she was a member since 2013 and chaired since May 2015. Ms Geneviève Berger was warmly thanked for her contribution to the work of the Board of Directors since 2015, as well as her participation in the Environment and Society Committee, of which she was a member since its creation in 2017.

Your Board of Directors also decided, on the recommendation of the Appointments and Governance Committee, in accordance with the selection procedure conducted by the latter, to propose the appointment of four new Directors. These proposals are in line with the Board's diversity policy, aimed in particular at reflecting the Group's international character and its diversity of cultures and nationalities, and having a range of complementary skills and expertise, both sectoral and cross-functional (particularly financial and CSR). Thus, under the terms of the 5th, 6th, 7th and 8th resolutions, it is proposed that you appoint as Directors, for terms of four years, Ms Catherine Guillaouard, Ms Christina Law, Mr Alexis Perakis-Valat and Mr Michael H. Thaman :

Ms Catherine Guillaouard, former Chairwoman and Chief Executive Officer of RATP until September 2022 and previously Chief Financial Officer and Deputy Chief Executive Officer of Rexel, Chief Financial Officer of Eutelsat and Air France, will bring to the Board her extensive financial skills as well as her experience as an executive in a major public transport group, where she led the transformation and decarbonization plan.

Ms Christina Law, a Chinese national (Hong Kong) and based in Singapore, will bring to the Board her in-depth knowledge of Asian markets, and her managerial experience in large international groups specializing in the fields of healthcare and treatment.

President of the Consumer Products Division of the L'Oréal group, the group's main division, Mr Alexis Perakis-Valat will bring to the Board his knowledge of consumer product markets and his managerial experience within a leading international group, where he has been one of the driving forces behind major transformations carried out in recent years.

An American national, Mr Michael H. Thaman has extensive knowledge of North American industrial markets as well as a strong international profile. He brings nearly 30 years of experience, including 13 years as Chairman and Chief Executive Officer, and 18 years as Executive Chairman of Owens Corning, a world leader in construction materials and one of the highest-rated American groups on environmental and societal criteria, and his experience as a Director in other major global listed US groups, particularly in the field of renewable energies.

In addition, your Board took note of the resignation, on January 3, 2023, of Ms Anette Bronder, Director since May 2020, due to her wish to take an executive position with an audit firm, which is incompatible with the maintenance of her office as a Director of L'Air Liquide S.A. The Appointments and Governance Committee conducted a selection process with the support of an external firm. At the end of this process, the Board of February 15, 2023, on the recommendation of the Committee, appointed, by way of co-option (within the meaning of Article 225-24 of the French Commercial Code) for the remaining term of office of Ms Anette Bronder, i.e. until the end of the 2024 General Meeting, Ms Monica de Virgiliis ⁽¹⁾ as a Director of the Company. An Italian and French national, Ms Monica de Virgiliis will bring to the Board her experience of more than 15 years in the Electronics business, her skills in the field of technology and energy, and her commitment to energy transition. Under the terms of the 9th resolution, you are asked to ratify this co-option.

The Board considers that the members proposed to the vote are independent and have the required availability. At the end of this General Meeting, subject to approval by the General Meeting of all the resolutions, the Board of Directors would therefore comprise fourteen members: twelve members appointed by the General Meeting, most of whom are independent (i.e. 83% independent Directors), including five women (i.e. 42%), five foreign nationals and two Directors representing the employees.

⁽¹⁾ In order to take into account the policy of certain investors, Ms Monica de Virgiliis, who is Chairwoman of SNAM and whose nomination as Director of Georg Fischer will be proposed on April 2023, announced that she would not seek the renewal of her term of office as a member of the Supervisory Board of ASM when it expires in May 2024 (see individual profile p. 176).

NB : It is reminded, for all purposes, that Ms. Catherine Guillaouard, who is Director and Chairwoman of the Audit Committee of Airbus (as well as Chairwoman of Ingenic, a now unlisted company) will have only one other mandate in a listed company on May 3, 2023 (as she will step down from her mandate as member of the Supervisory Board of KPN on April 2023) (see individual profile p. 172).

Fifth Resolution

(Appointment of Ms Catherine Guillaouard as Company Director)

The General Meeting, deliberating according to the quorum and majority required for Ordinary General Meetings, after having noted the Report of the Board of Directors, decides to appoint Ms Catherine Guillaouard as a Director for a term of four years, which will expire at the end of the 2027 General Meeting held to approve the financial statements for the fiscal year ending December 31, 2026.

Sixth Resolution

(Appointment of Ms Christina Law as Company Director)

The General Meeting, deliberating according to the quorum and majority required for Ordinary General Meetings, after having noted the Report of the Board of Directors, decides to appoint Ms Christina Law as a Director for a term of four years, which will expire at the end of the 2027 General Meeting held to approve the financial statements for the fiscal year ending December 31, 2026.

Seventh Resolution

(Appointment of Mr Alexis Perakis-Valat as Company Director)

The General Meeting, deliberating according to the quorum and majority required for Ordinary General Meetings, after having noted the Report of the Board of Directors, decides to appoint Mr Alexis Perakis-Valat as a Director for a term of four years, which will expire at the end of the 2027 General Meeting held to approve the financial statements for the fiscal year ending December 31, 2026.

Eighth Resolution

(Appointment of Mr Michael H. Thaman as Company Director)

The General Meeting, deliberating according to the quorum and majority required for Ordinary General Meetings, after having noted the Report of the Board of Directors, decides to appoint Mr Michael H. Thaman as a Director for a term of four years, which will expire at the end of the 2027 General Meeting held to approve the financial statements for the fiscal year ending December 31, 2026.

Ninth Resolution

(Ratification of the temporary appointment of Ms Monica de Virgiliis as Company Director)

The General Meeting, deliberating according to the quorum and majority required for Ordinary General Meetings, having reviewed the Board of Directors' Report, resolves to ratify the provisional appointment made by the Board of Directors on February 15, 2023, of Ms Monica de Virgiliis as Director, in replacement of Ms Anette Bronder, for the latter's remaining term of office. This term of office will therefore expire at the end of the 2024 General Meeting called to approve the 2023 financial statements.

Résolution 10 Regulated agreements

Purpose

During the 2022 fiscal year, no new regulated agreements were submitted for the prior approval of the Board of Directors.

As provided by law, the Board of Directors carried out an annual review of agreements approved and concluded during previous fiscal years which continued to be applied during the year ended December 31, 2022.

In the **10th resolution**, you are asked to take note of the fact that the Statutory Auditors' Special Report on regulated agreements does not mention any new agreements.

The Special Report is included in chapter 6 of the 2022 Universal Registration Document.

Tenth Resolution

(Statutory Auditors' Special Report on agreements covered by the articles L. 225-38 et seq. of the French Commercial Code)

The General Meeting, deliberating according to the quorum and majority required for Ordinary General Meetings, duly notes that the Statutory Auditors' Special Report on the agreements covered by articles L. 225-38 et seq. of the French Commercial Code required by the legal and regulatory provisions in force has been submitted to the General Meeting and that it makes no mention of any new agreement during the fiscal year ended December 31, 2022.

Resolutions 11 to 13 Approval of the remuneration of Company Officers paid or awarded in respect of the 2022 fiscal year

Purpose

Pursuant to article L. 22-10-34 II of the French Commercial Code, Shareholders are asked:

- in the **11th resolution** to approve the fixed, variable and exceptional components of the total remuneration and other benefits paid in 2022 or awarded in respect of the 2022 fiscal year (for the period from January 1, 2022 to May 31, 2022) to Mr Benoît Potier as Chairman and Chief Executive Officer. It is specified that no LTI or exceptional remuneration were paid or awarded in 2022.
- in the **12th resolution** to approve the fixed, variable and exceptional components of the total remuneration and other benefits paid in 2022 or awarded in respect of the 2022 fiscal year (for the period from June 1, 2022 to December 31, 2022) to Mr François Jackow as Chief Executive Officer. It is specified that no exceptional remuneration was paid or awarded in 2022.
- in the **13th resolution** to approve the fixed, variable and exceptional components of the total remuneration and other benefits paid in 2022 or awarded in respect of the 2022 fiscal year (for the period from June 1, 2022 to December 31, 2022) to Mr Benoît Potier as Chairman of the Board of Directors. It is specified that **no variable remuneration**, LTI or exceptional remuneration were paid or awarded in 2022.

These components of remuneration are described in the Report on Corporate Governance included in chapter 3 of the 2022 Universal Registration Document and are summarized in the 2023 Invitation to the Annual General Meeting. They were paid or awarded in line with the remuneration policy approved by the General Meeting on May 4, 2022.

Eleventh Resolution

(Approval of the components of the remuneration paid during or awarded in respect of the fiscal year ended December 31, 2022 to Mr Benoît Potier, Chairman and Chief Executive Officer, for the period from January 1, 2022 to May 31, 2022)

The General Meeting, deliberating according to the quorum and majority required for Ordinary General Meetings, approves, pursuant to article L. 22-10-34-II of the French Commercial Code, the fixed, variable and exceptional elements of the total remuneration and benefits of any kind paid during the fiscal year ended December 31, 2022, or awarded for the same fiscal year to Mr Benoît Potier, Chairman and Chief Executive Officer (for the period from January 1, 2022 to May 31, 2022), as presented in the Company's 2022 Universal Registration Document, in chapter 3 "Corporate governance", in the section entitled "Remuneration of L'Air Liquide S.A. corporate officers," in the paragraph headed "Elements of the total remuneration and benefits of any kind paid during or awarded in respect of the fiscal year ended December 31, 2022, to Mr Benoît Potier (for the period from January 1, 2022 to May 31, 2022) and on which the General Meeting of May 3, 2023, is invited to vote."

Twelfth Resolution

(Approval of the components of the remuneration paid during or awarded in respect of the fiscal year ended December 31, 2022 to Mr François Jackow, Chief Executive Officer, for the period from June 1, 2022 to December 31, 2022)

The General Meeting, deliberating according to the quorum and majority required for Ordinary General Meetings, approves, pursuant to article L. 22-10-34-II of the French Commercial Code, the fixed, variable and exceptional elements of the total remuneration and benefits of any kind paid during the fiscal year ended December 31, 2022, or awarded for the same fiscal year to

Mr François Jackow, Chief Executive Officer (for the period from June 1, 2022 to December 31, 2022) as presented in the Company's 2022 Universal Registration Document, in chapter 3 "Corporate governance", in the section entitled "Remuneration of L'Air Liquide S.A. corporate officers," in the paragraph headed "Elements of the total remuneration and benefits of any kind paid during or awarded in respect of the fiscal year ended December 31, 2022, to Mr François Jackow (for the period from June 1, 2022 to December 31, 2022) and on which the General Meeting of May 3, 2023, is invited to vote."

Thirteenth Resolution

(Approval of the components of the remuneration paid during or awarded in respect of the fiscal year ended December 31, 2022 to Mr Benoît Potier, Chairman of the Board of Directors, for the period from June 1, 2022 to December 31, 2022)

The General Meeting, deliberating according to the quorum and majority required for Ordinary General Meetings, approves, pursuant to article L. 22-10-34-II of the French Commercial Code, the fixed, variable and exceptional elements of the total remuneration and benefits of any kind paid during the fiscal year ended December 31, 2022, or awarded for the same fiscal year to Mr Benoît Potier, Chairman of the Board of Directors (for the period from June 1, 2022 to December 31, 2022) as presented in the Company's 2022 Universal Registration Document, in chapter 3 "Corporate governance", in the section entitled "Remuneration of L'Air Liquide S.A. corporate officers," in the paragraph headed "Elements of the total remuneration and benefits of any kind paid during or awarded in respect of the fiscal year ended December 31, 2022, to Mr Benoît Potier (for the period from June 1, 2022 to December 31, 2022) and on which the General Meeting of May 3, 2023, is invited to vote."

Resolution 14 Approval of information relating to the remuneration of corporate officers included in the Report on corporate governance in accordance with article L. 22-10-9-I of the French Commercial Code

Purpose

Pursuant to article L. 22-10-34-I of the French Commercial Code, Shareholders are invited to approve the 14th resolution on information relating to the remuneration of the Company's corporate officers (the Chairman and Chief Executive Officer for the period from January 1, 2022 to May 31, 2022, the Chief Executive Officer for the period from June 1, 2022 to December 31, 2022, and the Chairman of the Board of Directors for the period from June 1, 2022 to December 31, 2022, and the Directors) listed in article L. 22-10-9-I of the French Commercial Code.

This information notably includes elements which establish the link between the Executive Officer's remuneration (in respect of the appropriate period) and the Company's performance, as well as communication of remuneration ratios, both on the legal scope and on an expanded scope.

This information is described in the Report on Corporate Governance included in chapter 3 of the 2022 Universal Registration Document.

Fourteenth Resolution

(Approval of information relating to the remuneration of corporate officers stated in article L. 22-10-9-I of the French Commercial Code)

The General Meeting, deliberating according to the quorum and majority required for Ordinary General Meetings, approves, pursuant to article L. 22-10-34-I of the French Commercial Code, the information mentioned in article L. 22-10-9-I of the same Code, which is included in the Board of Directors' Report on

Corporate Governance, in chapter 3 "Corporate governance", in the section entitled "Remuneration of L'Air Liquide S.A. corporate officers" in the paragraphs headed "Remuneration of the Company Officers (including information stated in article L. 22-10-9-I of the French Commercial Code)" and "Remuneration of the non-Executive Directors (including information stated in article L. 22-10-9-I of the French Commercial Code)".

Resolutions 15 to 17 Approval of the remuneration policy applicable to corporate officers

Purpose

Pursuant to article L. 22-10-8 II of the French Commercial Code, Shareholders are invited to approve the remuneration policy applicable to corporate officers.

The elements of this policy, including the remuneration policy for Executive Officers and non-executive Officers, their application to each Company Officer and the policy applicable to Directors, are described in the Report on Corporate Governance in chapter 3 of the 2022 Universal Registration Document, in the section entitled “Remuneration policy applicable to corporate officers” and summarized in the 2023 Invitation to the Annual General Meeting.

The approval of the remuneration policy is the subject of the **15th resolution** for the **Chief Executive Officer** (applicable to Mr François Jackow), the **16th resolution** for the **Chairman of the Board of Directors** (applicable to Mr Benoît Potier) and the **17th resolution** for the Company’s **Directors**.

Fifteenth Resolution

(Approval of the remuneration policy for the Chief Executive Officer)

The General Meeting, deliberating according to the quorum and majority required for Ordinary General Meetings, having duly noted the Board of Directors’ Report on Corporate Governance, approves, pursuant to article L. 22-10-8-II of the French Commercial Code, the elements of the remuneration policy for the Chief Executive Officer as presented in the Company’s 2022 Universal Registration Document, in chapter 3 “Corporate governance”, in the section entitled “Remuneration policy applicable to corporate officers,” in the paragraph headed “Remuneration policy applicable to Company Officers.”

Sixteenth Resolution

(Approval of the remuneration policy for the Chairman of the Board of Directors)

The General Meeting, deliberating according to the quorum and majority required for Ordinary General Meetings, having duly noted the Board of Directors’ Report on Corporate Governance, approves, pursuant to article L. 22-10-8-II of the French Commercial Code, the remuneration policy for the Chairman of the Board of Directors as presented in the Company’s 2022 Universal Registration Document, in chapter 3 “Corporate governance,” in the section entitled “Remuneration policy applicable to corporate officers,” in the paragraph headed “Remuneration policy applicable to Company Officers.”

Seventeenth Resolution

(Approval of the remuneration policy applicable to Directors)

The General Meeting, deliberating according to the quorum and majority required for Ordinary General Meetings, having duly noted the Board of Directors’ Report on Corporate Governance, approves, pursuant to article L. 22-10-8-II of the French Commercial Code, the remuneration policy for the Directors, as presented in the Company’s 2022 Universal Registration Document, in chapter 3 “Corporate governance,” in the section entitled “Remuneration policy applicable to corporate officers,” in the paragraph headed “Remuneration policy applicable to Directors.”

Extraordinary General Meeting

Resolution 18 Authorization to reduce the share capital by cancellation of treasury shares

Purpose

As is the case each year, we ask you, in the **18th resolution**, to authorize the Board of Directors to cancel any or all of the shares purchased in the share buyback program and reduce share capital under certain conditions, particularly in order to fully offset, where necessary, any potential dilution resulting from capital increases relating to employee share ownership transactions.

The difference between the carrying amount of the canceled shares and their nominal amount will be allocated to reserve or additional paid-in capital accounts.

This authorization granted to the Board of Directors will be for a period of 24 months.

Eighteenth Resolution

(Authorization granted to the Board of Directors for a period of 24 months to reduce the share capital by cancellation of treasury shares)

The General Meeting, deliberating according to the quorum and majority required for Extraordinary General Meetings after having noted the Report of the Board of Directors and the Statutory Auditors' Special Report, authorizes the Board of Directors to cancel, via its decisions alone, on one or more occasions, and within the limit of 10% of the Company's share capital per 24-month period, any or all of the shares bought back by the Company within the scope of the authorization adopted by this Ordinary General Meeting in its fourth resolution and of those shares bought back within the scope of the authorization adopted by the Ordinary General Meetings of May 4, 2021 and May 4, 2022, and to reduce the share capital by this amount.

The difference between the carrying amount of the canceled shares and their nominal amount will be allocated to any reserve or additional paid-in capital accounts.

This authorization is granted for a period of 24 months starting from the date of this General Meeting. It supersedes the authorization granted by the Extraordinary General Meeting of May 4, 2022, in its eighteenth resolution with respect to the non-utilized portion of such authorization.

Full powers are granted to the Board of Directors, with the possibility of sub-delegation under the conditions set by law, to implement this authorization, deduct the difference between the carrying amount of the shares canceled and their nominal amount from all reserve and additional paid-in capital accounts and to carry out the necessary formalities to implement the reduction in capital which shall be decided in accordance with this resolution and amend the articles of association accordingly.

Resolutions 19 and 20 Capital increase through the issue of ordinary shares or marketable securities giving access to the share capital with retention of preferential subscription rights

Purpose

To ensure the financing of the Group's growth investments, the 19th resolution invites you to renew the delegation allowing the Board of Directors to increase the share capital by a maximum nominal amount of 470 million euros, corresponding to approximately 16% of the share capital as of December 31, 2022, by issuing, on one or more occasions, ordinary shares or dilutive compound marketable securities. Shareholders shall have, in proportion to the number of shares they hold, a preferential subscription right to the shares or the marketable securities thus issued.

The Group did not make use of the previous authorization granted by the Extraordinary General Meeting of May 4, 2021.

This delegation is valid for a period of 26 months.

The total amount of the share capital increases that may be carried out under the 20th resolution below and resolutions allowing employees and Company Officers to benefit from shares (20th and 21st resolutions of the Extraordinary General Meeting of May 4, 2022) and resolutions allowing the implementation of employees share ownership transactions (21st and 22nd resolutions submitted to this General Meeting, subject to their approval) will also be deducted from this limit of 470 million euros.

As in 2021, in order to provide Shareholders with the right to express an opinion on the issues that are the subject of this delegation during periods of takeover bids, it is proposed that this delegation of authority be suspended during periods of takeover bids.

In the event of oversubscription, the **20th resolution** allows the amount of the issue initially provided for to be increased by a maximum of 15% (legal limit), subject to a maximum of 470 million euros.

Nineteenth Resolution

(Delegation of authority granted to the Board of Directors for a period of 26 months to increase the share capital via the issuance of ordinary shares or marketable securities giving access, immediately and/or in the future, to the Company's share capital with retention of preferential subscription rights for Shareholders for a maximum nominal amount of 470 million euros)

The General Meeting, deliberating according to the quorum and majority required for Extraordinary General Meetings, after having noted the Board of Directors' Report and the Statutory Auditors' Special Report, pursuant to articles L. 225-129 to L. 225-129-6, L. 22-10-49 and L. 228-91 to L. 228-93 of the French Commercial Code:

- delegates to the Board of Directors, with the possibility of sub-delegation under the conditions set by law, the authority to decide, on one or more occasions, in the proportions and at the times it deems fit, with retention of preferential subscription rights, the issue, in France and abroad, in euros, in foreign currencies or in units of account set by reference to several currencies, (i) of ordinary shares of the Company, (ii) of marketable securities governed by articles L. 228-91 et seq. of the French Commercial Code which are equity securities of the Company, giving access to other equity securities of the Company and/or giving entitlement to the allocation of debt securities of the Company and/or (iii) marketable securities representing a claim, whether or not governed by articles L. 228-91 et seq. of the French Commercial Code, giving access to or likely to give access to equity securities of the Company to be issued, with the possibility that these marketable securities may, where applicable, also give access to existing equity securities and / or debt securities of the Company, the subscription of which may be made either in cash or by offsetting against liquid and payable receivables.
- The delegation thereby granted to the Board of Directors is valid for a period of 26 months starting from the date of this General Meeting, it being specified, however, that the Board of Directors will not be authorized to make use of it during periods of takeover bids on the Company's share capital;
- decides that the total amount of share capital increases likely to be carried out, immediately and/or in the future, may not exceed a nominal amount of 470 million euros, from which will be deducted (i) the amount of the issues of shares or marketable securities, in the event of oversubscription, carried out pursuant to the twentieth resolution below (or any resolution which would replace it at a later date), (ii) the amount of share issues resulting from options or performance shares granted under the twentieth and twenty-first resolutions of the Extraordinary General Meeting of May 4, 2022 (or any resolutions subsequently substituted), and (iii) the total amount of share capital increases carried out pursuant to the twenty first and twenty second resolutions of this General Meeting subject to their approval (or any resolutions which would replace them at a later date), this limit being increased by the number of shares necessary for adjustments that may be made in accordance with applicable laws and regulations and, where applicable, contractual provisions providing for other cases of adjustment, to preserve the rights of holders of marketable securities giving entitlement to Company shares; the maximum nominal amount (or its equivalent amount in euros on the issue decision date in the event of an issue in foreign currencies or in units of account set by reference to several currencies) of the marketable debt securities giving access to the Company's share capital issued under this delegation may not exceed a limit of 3 billion euros, from which the issuance amount shall be deducted, where applicable, in the event of oversubscription, carried out pursuant to the twentieth resolution below (or any resolution that would replace it a later date);
 - decides that Shareholders have, in proportion to the amount of their shares, a preferential subscription right to shares or marketable securities giving access, immediately and/or in the future, to Company shares issued pursuant to this resolution;
 - decides that if the subscriptions on an irreducible basis and, where applicable, on a reducible basis, where the Board of Directors has authorized such a possibility, have not absorbed the entire issue of shares or marketable securities as defined above, the Board of Directors may use, in the order it deems appropriate, each of the options offered by article L. 225-134 of the French Commercial Code, or only some of them;
 - acknowledges and decides, as necessary, that any decision to issue under this delegation of authority shall entail, to the benefit of the holders of issued marketable securities giving access or likely to give access to equity securities to be issued by the Company, the waiver by Company Shareholders of their preferential subscription rights to the shares to be issued to which these marketable securities will give entitlement immediately and/or in the future;
 - grants full powers to the Board of Directors, with the option of sub-delegation under the conditions set by law, to implement this delegation and in particular:
 - determine the price, terms and dates of the issues, as well as the form and characteristics of the marketable securities to be created,
 - set the amounts to be issued, suspend, where applicable, the exercise of Company share allotment rights attached to the marketable securities to be issued for a period not exceeding three months, set the terms and conditions under which will be ensured, where applicable, the preservation of the rights of holders of marketable securities giving future entitlement to Company shares, in accordance with legal, regulatory and, where applicable, contractual provisions, and deduct, where applicable, any amounts from the issue premium(s) and in particular, costs arising from issues,
 - proceed, where applicable, with the admission to trading on a regulated market of the marketable securities to be issued, generally take all necessary measures and enter into all agreements to successfully complete the planned issues, record the capital increase(s) resulting from any issue carried out using this delegation and amend the articles of association accordingly;
 - acknowledges that this delegation cancels the delegation granted by the Extraordinary General Meeting of May 4, 2021 in its fifteenth resolution.

Twentieth Resolution

(Authorization granted to the Board of Directors for a period of 26 months to increase, in the event of oversubscription, the issuance amount of shares or marketable securities)

The General Meeting, deliberating according to the quorum and majority required for Extraordinary General Meetings, after having noted the Report of the Board of Directors and the Statutory Auditors' Special Report and pursuant to the provisions of article L.225-135-1 of the French Commercial Code, in the event of the issue of shares or marketable securities with retention of preferential subscription rights as referred to in the nineteenth resolution:

Resolutions presented for the approval of the Combined General Meeting – May 3, 2023

- authorizes the Board of Directors, with the possibility of sub-delegation, to increase, under the conditions set by law, the number of shares or marketable securities to be issued with preferential subscription rights for Shareholders at the same price as set for the initial issue, within the deadlines and limits provided for by the applicable regulations, it being specified, however, that the Board of Directors will not be authorized to make use of it during periods of takeover bid on the Company's share capital;
- decides that the nominal amount of the increase in the issue decided under this resolution will be deducted from the first, and, where applicable, in the event of the issue of debt securities, the second limit stated in the nineteenth resolution;
- decides that this delegation of authority granted to the Board of Directors is valid for a period of 26 months starting from the date of this Meeting.

Resolutions 21 and 22 Capital increase reserved for employees

Purpose

As provided by law, the resolution authorizing increases in share capital in favor of members of a Company or Group Savings Plan approved during the Extraordinary General Meeting of May 4, 2022, is resubmitted to you. The total nominal amount of share capital increases likely to be performed under this resolution is 22 million euros, corresponding to the issue of a maximum of 4 million shares, or 0.76% of the share capital as at December 31, 2022. This amount shall be deducted from the maximum nominal amount of 470 million euros, i.e. around 16% of the share capital, as stipulated in the 19th resolution of this General Meeting relating to the overall limit for share capital increases likely to be performed with delegation to the Board of Directors.

The 21th resolution outlines the conditions of share capital increases reserved for members of a Company or Group Savings Plan; it is accompanied in the 22th resolution by a similar provision for Group employees and corporate officers based abroad who cannot benefit from the shareholding mechanism which will be established pursuant to the 21st resolution.

These two delegations will be valid for a period of 26 months for the 21st resolution and for a period of 18 months for the 22th resolution. They shall result in the waiver by Shareholders of their preferential subscription rights in favor of the beneficiaries.

The Group wishes to continue increasing the involvement of employees in its development. These employee share ownership offers contribute significantly to increasing employee motivation and a sense of belonging to the Group.

At the end of 2022, the share capital held by employees and former employees of the Group is estimated at 2.76% of which 1.95% corresponds to shares subscribed by employees during capital increases reserved for employees or held through dedicated mutual funds.

Twenty-first Resolution

(Delegation of authority granted to the Board of Directors for a period of 26 months to perform share capital increases, with cancellation of preferential subscription rights, reserved for members of a company or group savings plan)

The General Meeting, deliberating according to the quorum and majority required for Extraordinary General Meetings, after having noted the Report of the Board of Directors and the Statutory Auditors' Special Report, deliberating pursuant to articles L. 225-129-6 and L. 225-138-1 of the French Commercial Code and articles L. 3331-1 et seq. of the French Labor Code:

- delegates to the Board of Directors the authority to decide to increase the Company's share capital, on one or more occasions, at the time or times and in the proportions that it deems appropriate, via the issuance of ordinary shares of the Company as well as equity securities granting access to the Company's share capital, reserved for members of a Company or Group Savings Plan;
- decides that the total amount of share capital increases likely to be performed under this resolution may not exceed a maximum nominal amount of 22 million euros, corresponding to the issue of a maximum of 4 million shares, it being specified that this amount does not include additional shares to be issued, in accordance with applicable legal and regulatory provisions, and, when relevant, contractual stipulations providing for other adjustments, to preserve the rights of holders of equity securities conferring access to share capital and that the total amount of capital increases to be performed under this resolution and the twenty-second resolution may not exceed the aforementioned nominal amount of 22 million euros;
- resolves that the maximum nominal amount of share capital increases to be performed on the basis of this delegation shall be deducted from the overall limit stipulated in paragraph 2 of the nineteenth resolution of this General Meeting (or any resolution which would replace it at a later date);
- decides that the beneficiaries of these capital increases will be, directly or through an intermediary of a Company mutual fund (FCPE) or all other structures or entities permitted by applicable legal or regulatory provisions, the members, within the Company and the French or foreign companies affiliated to it within the meaning of article L. 225-180 of the French Commercial Code and article L. 3344-1 of the French Labor Code, of a Company or Group Savings Plan;
- decides to cancel the preferential subscription rights of Shareholders to the new shares or other equity securities, and equity securities to which the latter would confer entitlement, which shall be issued in favor of the aforementioned members of a Company or Group Savings Plan in accordance with this resolution;

- decides that the subscription price may not exceed the average, determined in accordance with article L. 3332-19 of the French Labor Code, of the opening trading prices for the Company's share during the 20 trading days preceding the date of the decision setting the opening date for the subscription period, or be more than 20% lower than such average, bearing in mind that the General Meeting officially authorizes the Board of Directors, if deemed appropriate, to reduce or cancel the aforementioned discount, in view of the legal, regulatory and tax constraints under the applicable foreign law, where applicable;
- decides, in accordance with article L. 3332-21 of the French Labor Code, that the Board of Directors may provide for the free share attribution, to the aforementioned beneficiaries, of shares to be issued or already issued or other equity securities or securities granting access to the Company's capital to be issued or already issued, in respect of (i) the contribution that could be paid in accordance with the regulations governing Company or Group Saving Plans, and/or (ii) where appropriate, the discount;
- also decides that, should the beneficiaries not subscribe to the entire capital increase within the allotted deadlines, the capital increase would only be performed for the amount of the shares subscribed, and that the non-subscribed shares may be offered again to the beneficiaries concerned within the scope of a subsequent capital increase;
- grants full powers to the Board of Directors with the option of sub-delegation under the conditions set by law, to determine, within the limits described above, the various terms and conditions of the transaction and particularly:
 - define the criteria which the companies must meet in order for their employees to be entitled to benefit from the capital increases,
 - determine a list of these companies,
 - set the terms and conditions of the share issue, the characteristics of the shares, and, where appropriate, the other equity securities, determine the subscription price calculated based on the method defined above, set the terms and conditions and deadline for fully paying up the subscribed shares; deduct from the "additional paid-in capital" account all costs relating to these capital increases and, if deemed appropriate, all sums necessary to bring the legal reserve up to one tenth of the new share capital after each share issue; and generally complete, directly or through an authorized representative, all the transactions and formalities relating to the share capital increases performed under this resolution and, where appropriate, take any measures with a view to listing the shares issued pursuant to this resolution for trading on the Euronext Paris regulated exchange,
 - set the opening and closing dates for the subscription period, record the completion of the corresponding capital increase and amend the articles of association accordingly;
- decides that this delegation of authority granted to the Board of Directors is valid for a period of 26 months starting from the date of this General Meeting.

Twenty-second Resolution

(Delegation of authority granted to the Board of Directors for a period of 18 months to perform share capital increases, with cancellation of preferential subscription rights, reserved for a category of beneficiaries)

The General Meeting, deliberating according to the quorum and majority required for Extraordinary General Meetings, after having noted the Report of the Board of Directors and the Statutory Auditors' Special Report, pursuant to articles L. 225-129 to L. 225-129-2 and article L. 225-138 of the French Commercial Code:

- delegates to the Board of Directors the authority to decide to increase the Company's share capital, on one or more occasions, at the time or times and in the proportions it shall deem fit, via the issuance of ordinary shares of the Company as well as any other equity securities conferring entitlement to the Company's share capital, reserved for the category of beneficiaries defined hereafter;
- decides that the total amount of share capital increases likely to be performed under this resolution may not exceed a maximum nominal amount of 22 million euros, corresponding to the issue of a maximum of 4 million shares, it being specified that this amount does not include additional shares to be issued, in accordance with applicable legal and regulatory provisions, and, when relevant, contractual stipulations providing for other adjustments, to preserve the rights of holders of equity securities conferring access to share capital and that the total amount of capital increases to be performed under this resolution and the twenty-first resolution may not exceed the aforementioned nominal amount of 22 million euros;
- decides that the maximum nominal amount of share capital increases to be performed on the basis of this delegation shall be deducted from the overall limit stipulated in paragraph 2 of the nineteenth resolution of this General Meeting (or any resolution which would replace it at a later date);
- decides to cancel the preferential subscription rights of Shareholders to the shares or other equity securities and to the equity securities to which the latter would confer entitlement, which may be issued pursuant to this resolution and to reserve the right to subscribe for them to the category of beneficiaries meeting the following characteristics: any bank or subsidiary of such a bank mandated by the Company and which may subscribe for the shares, or other equity securities issued by the Company pursuant to this resolution, with the sole intent of enabling employees and corporate officers of foreign companies, affiliated to the Company within the meaning of article L. 225-180 of the French Commercial Code and article L. 3344-1 of the French Labor Code, to benefit from a shareholding or investment plan with an economic profile comparable to an employee share ownership scheme that may be set up in connection with a share capital increase performed in accordance with the twenty-first resolution submitted to the vote of this General Meeting, taking into account the regulatory and fiscal and/or social framework applicable in the country of residence of the employees and corporate officers of the aforementioned foreign companies;

- decides that the unit price for the issue of the shares to be issued pursuant to this resolution shall be determined by the Board of Directors based on the Company's share price; this issue price shall be equal to the average of the opening trading prices for the Company's share during the 20 trading days preceding the date of the Board of Directors' decision setting the opening date for the period of subscription to a share capital increase performed on the basis of the twenty-first resolution, with the possibility of reducing this average by a maximum discount of 20%; the amount of this discount shall be determined by the Board of Directors within the aforementioned limit;
- decides that the Board of Directors shall have full powers, under the terms and conditions set forth by law and within the limits defined above, with the option of sub-delegation, so as to implement this delegation and particularly in order to:
 - set the date and price for the issue of shares or other equity securities to be issued in accordance with this resolution as well as the other terms and conditions governing the issue,
 - determine the beneficiary (or list of beneficiaries) for the cancellation of the preferential subscription rights within the above-defined category, as well as the number of shares to be subscribed by such beneficiary (or each beneficiary),
 - where appropriate, determine the characteristics of the other equity securities granting access to the Company's share capital under the applicable legal and regulatory conditions,
 - record the completion of the share capital increase, complete, directly or through an authorized representative, all the transactions and formalities involving the share capital increases and, on its sole decision and if it deems appropriate, deduct the share capital increase costs from the amount of additional paid-in capital relating to such increases, amend the articles of association accordingly and perform all the necessary formalities and, where appropriate, take any measures with a view to listing the shares issued pursuant to this resolution for trading on the Euronext Paris regulated exchange;
- decides that this delegation of authority granted to the Board of Directors is valid for a period of 18 months starting from the date of this General Meeting.

Ordinary General Meeting

Resolution 23 Powers

Purpose

The **23rd resolution** is a standard resolution required for the completion of official publications and legal formalities.

Twenty-third Resolution (Powers for formalities)

Full powers are granted to a holder of a copy or extract of the minutes of this General Meeting to perform all official publications and other formalities required by law and the regulations.

STATUTORY AUDITORS' REPORTS

Statutory Auditors' Special Report on related party agreements

This is an unofficial translation into English of the Statutory Auditors' Special Report on related-party agreements that is issued in French and provided solely for the convenience of English speaking readers. This report should be read in conjunction with, and construed in accordance with, French law and professional standards applicable in France.

It should be understood that the agreements reported on are only those provided for by the French Commercial Code (Code de commerce) and that the report does not apply to those related-party transactions described in IAS 24 or other equivalent accounting standards.

To the Shareholders of L'Air Liquide,

In our capacity as Statutory Auditors of your Company, we hereby report on the agreements with related parties.

We are required to inform you, based on the information provided to us, of the characteristics and principal terms and conditions as well as the reasons justifying the interest for your Company of those agreements of which we have been informed or which we discovered at the time of our engagement, without expressing an opinion on their usefulness and appropriateness or seeking to identify other agreements. It is your responsibility, pursuant to article R. 225-31 of the French Commercial Code (Code de commerce), to assess the benefits resulting from the conclusion of these agreements prior to their approval.

Furthermore, we are required, where applicable, to inform you in accordance with article R. 225-31 of the French Commercial Code (Code de commerce) relating to the performance, during the past fiscal year, of the agreements already approved by the Annual Shareholders' Meeting.

We performed those procedures which we considered necessary to comply with professional guidance issued by the national auditing body (Compagnie nationale des commissaires aux comptes) relating to this type of engagement. These procedures consisted in verifying that the information provided to us is consistent with the documentation from which it has been extracted.

AGREEMENTS SUBMITTED FOR APPROVAL OF THE ANNUAL SHAREHOLDERS' MEETING

Agreements authorized and executed during the past financial year

We hereby inform you that we have not been advised of any agreements authorized in the course of the year to be submitted to the General Meeting of Shareholders for approval in accordance with Article L. 225-38 of the French Commercial Code (Code de commerce).

AGREEMENTS ALREADY APPROVED BY SHAREHOLDERS' MEETING

Agreements approved during previous financial years that remained in force during the past financial year

Pursuant to article R. 225-30 of the French Commercial Code (Code de commerce), we have been informed that the performance of the following agreements already approved by the Annual Shareholders' Meeting during prior fiscal years, continued during the last fiscal year.

With Mr Benoît Potier, Chairman and Chief Executive Officer until May 31, 2022

Life insurance contract

Nature, purpose and conditions

As Executive Officers do no longer benefit from the defined contribution pension plan for senior managers and executives, Mr Benoît Potier benefits from a life insurance contract for the portion of his Reference remuneration amounting to between zero and twenty-four times the annual social security ceiling. The Reference remuneration includes the fixed remuneration and the variable remuneration within the limit of 100% of the fixed remuneration.

The rights resulting from the contributions paid have been definitely acquired by Mr Benoît Potier and are available at any time.

This agreement was last authorized by the Board of Directors on November 20, 2014 and approved by the Annual Shareholders' Meeting on May 6, 2015.

The amount of the contributions paid in respect of this contract in 2022 totals 222,134 euros for Mr Benoît Potier.

Neuilly-sur-Seine et Paris-La Défense, March 1st, 2023

The Statutory Auditors
French original signed by

PricewaterhouseCoopers Audit
Olivier Lotz

Cédric Le Gal

KMPG S.A.
Jeanne Boillet

Laurent Genin

Statutory Auditors' report on the share capital reduction (Combined General Meeting of May 3, 2023 – 18th resolution)

This is a free translation into English of the Statutory Auditors' report issued in French and is provided solely for the convenience of English-speaking readers. This report should be read in conjunction with, and construed in accordance with, French law and professional standards applicable in France

To the Shareholders,

In our capacity as Statutory Auditors of your Company and pursuant to the provisions of article L. 22-10-62 of the French Commercial Code (Code de commerce) relating to share capital reductions, in particular as regards the cancellation of shares bought back by the Company, we hereby report to you on our assessment of the reasons for and the terms and conditions of the proposed share capital reductions.

The shareholders are asked to delegate to the Board of Directors full powers to cancel, any or all of the shares bought back by the Company under the share buyback program, within the limit of 10% of the capital as of the date of the cancellation, per twenty-four-month period. These powers would be exercisable for a period of twenty-four months from the Shareholders' Meeting, in accordance with article L. 22-10-62 of the French Commercial Code (Code de commerce).

We performed the procedures we deemed necessary in accordance with professional standards applicable in France to such engagements. These procedures consisted in ensuring that the reasons for and the terms and conditions of the proposed capital reduction, which are not considered to affect shareholder equality, comply with the applicable legal provisions.

We have no matters to report on the reasons for or terms and conditions of the proposed capital decrease.

Neuilly-sur-Seine et Paris-La Défense, March 1st, 2023

The Statutory Auditors

French original signed by

PricewaterhouseCoopers Audit

KPMG S.A.

Olivier Lotz

Cedric Le Gal

Valérie Besson

Laurent Genin

Statutory Auditors' report on the issue of shares and various securities with preferential subscription rights

(Combined General Meeting of May 3, 2023 – 19th and 20th resolutions)

This is a free translation into English of the Statutory Auditors' report issued in French and is provided solely for the convenience of English speaking readers. This report should be read in conjunction with, and construed in accordance with, French law and professional standards applicable in France.

To the Shareholders,

In our capacity as Statutory Auditors of your Company, and in compliance with articles L. 228-92 of the French Commercial Code (Code de commerce), we hereby report to you on the the proposed delegation of authority to the Board of Directors to issue shares or various securities, operations upon which you are called to a vote.

Based on its report, the Board of Directors proposes that the Shareholders delegate to the Board of Directors, for a period of twenty-six months, the authority to decide on and set the final conditions of an issue, with preferential subscription rights, (i) of ordinary shares of the Company, (ii) of securities governed by articles L. 228-91 et seq. of the French Commercial Code (Code de Commerce), consisting of equity securities of the Company giving access to other equity securities of the Company and/or giving the right to the allocation of debt securities of the Company and/or (iii) of securities representing debt securities, whether governed or not by articles L. 228-91 et seq. of the French Commercial Code (Code de Commerce), giving access or likely to give access to equity securities to be issued by the Company, such securities also potentially giving access to existing equity securities and/or debt securities of the Company, the subscription of which may be made either in cash or by offsetting with liquid and payable receivables.

The total nominal amount of the share capital increases that may be carried out, immediately or in the future may not exceed 470 million euros, from which shall be deducted (i) the issuance amount of shares or securities, in the event of excess demand, carried out pursuant to the twentieth resolution (or any resolution which may subsequently replace it), (ii) the issuance amount of shares arising from the stock options or performance shares granted under the 20th and 21st resolutions of the Extraordinary Shareholder's Meeting of May 4, 2022 (or any resolution which may subsequently replace it), and (iii) the amount of the share capital increases carried out in accordance with the 21st and 22nd resolutions if this Shareholder's Meeting (or any resolution which may subsequently replace it).

The total nominal amount of securities representing debt securities giving access to the company's share capital that are likely to be issued may not exceed 3 billion euros.

If you adopt the 20th resolution, these maximum amounts will take into account the additional number of securities to be issued under the delegation of authority presented in the 19th resolution, in accordance with article L.225-135-1 of the French Commercial Code (Code de Commerce).

It is the Board of Directors' responsibility to prepare a report in accordance with articles R. 225-113 et seq. of the French Commercial Code (Code de commerce). It is our responsibility to express an opinion on the fairness of the information taken from the financial statements and on other information relating to this issue provided in this report.

We performed the procedures that we deemed necessary in accordance with professional standards applicable in France to such engagements. These procedures consisted in verifying information provided in the Board of Directors' Report pertaining to the transaction and the methods used to set the issue price of the shares to be issued.

As this report does not specify the methods used to determine the issue price for the equity securities to be issued, we do not express an opinion on the basis used to calculate this issue price.

In addition, we do not express an opinion on the final terms and conditions of the issuance, as they have not yet been set.

In accordance with article R. 225-116 of the French Commercial Code (Code de commerce), we will prepare an additional report if and when the Board of Directors uses this delegation of authority in the event of the issue of transferable securities which are equity securities giving access to other equity securities or giving the right to the allocation of debt securities and in the event of the issue of transferable securities giving access to equity securities to issue.

Neuilly-sur-Seine et Paris-La Défense, March 1st, 2023

The Statutory Auditors

French original signed by

PricewaterhouseCoopers Audit

KPMG S.A.

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Cédric Le Gal

Valérie Besson

Laurent Genin

Statutory Auditors' Report on the issue of ordinary shares and other equity securities giving access to the share capital reserved for members of a Company or Group savings plan (Combined General Meeting of May 3, 2023 – 21st resolution)

This is a free translation into English of the Statutory Auditors' report issued in French and is provided solely for the convenience of English speaking readers. This report should be read in conjunction with, and construed in accordance with, French law and professional standards applicable in France.

To the Shareholders,

In our capacity as Statutory Auditors of your Company, and in compliance with articles L. 228-92 and L. 225-135 et seq. of the French Commercial Code (Code de commerce), we hereby report to you on the proposed delegation of authority to the Board of Directors to issue, without shareholders' preferential subscription rights, ordinary shares and equity securities giving rights to the share capital, reserved for the employees of the Company and of any French or foreign companies affiliated to it within the meaning of article L. 225-180 of the French Commercial Code (Code de commerce) and article L. 3344-1 of the French Labor Code (Code du travail), provided that such employees are members of a Company or Group savings plan, an operation upon which you are called to vote.

The maximum nominal amount of share capital increases likely to be performed under this resolution may not exceed 22 million euros (corresponding to the issue of a maximum of 4 million shares), it being specified that:

- the total amount of share capital increases that may be carried out pursuant to the twenty first and twenty second resolutions of this Extraordinary Shareholders' Meeting, may not exceed the aforementioned nominal amount of 22 million euros;
- the maximum nominal amount of share capital increases that may be carried out pursuant to the twenty first and twenty second resolutions, will be deducted from the overall limit of 470 million euros stipulated in the nineteenth resolution of this Shareholders' Meeting (or any resolution which may be subsequently replace it).

This operation is submitted for your approval in accordance with the provisions of article L. 225-129-6 of the French Commercial Code (Code de commerce) and articles L. 3332-18 et seq. of the French Labor Code (Code du travail).

Your Board of Directors proposes that, on the basis of its report, the shareholders delegate to it the authority, for a period of 26 months as from the date of this Extraordinary Shareholders' Meeting, to decide one or several issuances and to cancel your preferential subscription rights to the shares to be issued. Where applicable, the Board of Directors will be responsible for setting the final terms and conditions of any such issue.

It is the Board of Directors' responsibility to prepare a report in accordance with articles R. 225-113 et seq. of the French Commercial Code (Code de commerce). It is our responsibility to express an opinion on the fairness of the information taken from the financial statements, on the proposed cancellation of shareholders' preferential subscription rights and on certain other information relating to this issue, contained in this report.

We have performed the procedures that we deemed necessary in accordance with professional standards applicable in France to such engagements. These procedures consisted in verifying the information provided in the Board of Directors' Report pertaining to the transaction and the methods used to set the issue price of the shares to be issued.

Subject to a subsequent examination of the terms and conditions of the proposed issue, we have no matters to report on the methods used to set the issue price of the securities given in the Board of Directors' Report.

Since the final terms and conditions of the issue have not been set, we do not express an opinion in this respect or consequently, on the proposed cancellation of shareholders' preferential subscription rights.

In accordance with article R. 225-116 of the French Commercial Code (Code de commerce), we will prepare an additional report in the event that the Board of Directors exercises this delegation of authority.

Neuilly-sur-Seine et Paris-La Défense, March 1st, 2023

The Statutory Auditors
French original signed by

PricewaterhouseCoopers Audit	KPMG S.A.
Olivier Lotz	Cédric Le Gal
	Valérie Besson
	Laurent Genin

Statutory Auditors' Report on the issue of ordinary shares and other equity securities giving rights to the share capital reserved for a category of beneficiaries (Combined General Meeting of May 3, 2023 – 22nd resolution)

This is a free translation into English of the Statutory Auditors' report issued in French and is provided solely for the convenience of English speaking readers. This report should be read in conjunction with, and construed in accordance with, French law and professional standards applicable in France.

To the Shareholders,

In our capacity as Statutory Auditors of your Company, and in compliance with articles L. 228-92 and L. 225-135 et seq. of the French Commercial Code (Code de commerce), we hereby report to you on the proposed delegation of authority to the Board of Directors for the issue of ordinary shares and other equity securities giving rights to the Company's share capital, without preferential subscription rights and reserved for the category of beneficiaries set out below, an operation upon which you are called to vote.

The issue is reserved for any financial institution or subsidiaries thereof appointed by your Company and which would subscribe to shares, or other equity securities issued by your Company pursuant to this resolution, with the sole aim of allowing employees and Executive Officers of foreign companies related to the Company, within the meaning of articles L. 225-180 of the French Commercial Code (Code de commerce) and L. 3344-1 of the French Labor Code (Code du travail), to benefit from a share ownership or investment mechanism with a similar economic profile to any employee share ownership plan implemented in connection with a share capital increase, pursuant to the twenty first resolution submitted to the vote of this Extraordinary Shareholders' Meeting, taking into account the locally applicable regulatory, tax and/or social framework for employees and Executive Officers of the above-mentioned foreign companies.

The maximum nominal amount of share capital increases likely to be performed under this resolution may not exceed 22 million euros (corresponding to the issue of a maximum of 4 million shares), it being specified that:

- the total amount of share capital increases that may be carried out immediately or in the future pursuant to the twenty first and twenty second resolutions of this Extraordinary Shareholders' Meeting, may not exceed the aforementioned nominal amount of 22 million euros;
- the maximum nominal amount of share capital increases that may be carried out pursuant to the twenty first and twenty second resolutions, will be deducted from the overall limit of 470 million euros stipulated in the nineteenth resolution of this Shareholders' Meeting (or any resolutions which may subsequently replace it).

Your Board of Directors proposes that, on the basis of its report, the shareholders delegate to it the authority, for a period of 18 months as from the date of this Extraordinary Shareholders' Meeting, to decide one or several issuances and cancel your preferential subscription rights to the shares to be issued. Where applicable, the Board of Directors will be responsible for setting the final terms and conditions of any such issue.

It is the Board of Directors' responsibility to prepare a report in accordance with articles R. 225-113 et seq. of the French Commercial Code (Code de commerce). It is our responsibility to express an opinion on the fairness of the information taken from the financial statements, on the proposed cancellation of preferential subscription rights and on certain other information relating to this issue, contained in this report.

We have performed the procedures that we deemed necessary in accordance with professional standards applicable in France to such engagements. These procedures consisted in verifying the information provided in the Board of Directors' Report pertaining to the transaction and the methods used to set the issue price of the shares to be issued.

Subject to a subsequent examination of the terms and conditions of the proposed issue, we have no matters to report on the methods used to set the issue price of the securities given in the Board of Directors' Report.

Since the final terms and conditions of the issue have not been set, we do not express an opinion in this respect or consequently, on the proposed cancellation of shareholders' preferential subscription rights.

In accordance with article R. 225-116 of the French Commercial Code (Code de commerce), we will prepare an additional report in the event that the Board of Directors uses this delegation of authority.

Neuilly-sur-Seine et Paris-La Défense, March 1st, 2023

The Statutory Auditors

French original signed by

PricewaterhouseCoopers Audit

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SHARE CAPITAL

1. Trends in share capital over the past three years

Issue date	Type of transaction	Number of shares issued	Aggregate number of shares	Share capital increase	Issue premiums and reserves	Share capital
<i>(in euros, except for shares)</i>						
February 10, 2020	Exercise of share subscription options	115,253	473,133,784	633,891.50	7,759,729.53	2,602,235,812.00
November 20, 2020	Exercise of share subscription options	455,663	473,589,447	2,506,146.50	28,924,432.96	2,604,741,958.50
February 9, 2021	Exercise of share subscription options	71,277	473,660,724	392,023.50	4,597,221.29	2,605,133,982.00
July 28, 2021	Cancellation of shares	(165,000)	473,495,724	(907,500.00)	(21,275,034.00)	2,604,226,482.00
September 29, 2021	Exercise of share subscription options	279,134	473,774,858	1,535,237.00	18,608,910.90	2,605,761,719.00
December 9, 2021	Share capital reserved for employees	1,098,738	474,873,596	6,043,059.00	119,172,394.74	2,611,804,778.00
February 15, 2022	Exercise of share subscription options	417,441	475,291,037	2,295,925.50	27,665,701.69	2,614,100,703.50
May 31, 2022	Exercise of share subscription options	179,795	475,470,832	988,872.50	12,383,510.94	2,615,089,576.00
May 31, 2022	Free share attribution (1 for 10)	47,547,083	523,017,915	261,508,956.50	(261,508,956.50)	2,876,598,532.50
May 31, 2022	Free share attribution (1 for 100)	1,358,416	524,376,331	7,471,288.00	(7,471,288.00)	2,884,069,820.50
July 27, 2022	Cancellation of shares	(1,098,900)	523,277,431	(6,043,950.00)	(152,783,263.80)	2,878,025,870.50

Note: Between June 1 and December 31, 2022, 172,840 options were exercised, giving rise to an outstanding capital as at December 31, 2022 of 2,878,976,490.50 euros divided up into 523,450,271 shares.

2. Changes in share capital ownership over the last three years

	2020	2021	2022
Individual shareholders	33%	33%	35% ^(a)
French institutional investors	16%	15%	14%
Foreign institutional investors	51%	52%	51%
Treasury shares	>0%	>0%	>0%

(a) Part of the increase in the proportion of capital held by individual Shareholders between the end of 2021 (33%) and the end of 2022 (35%) is due to the change of the tool used to identify Shareholders in application of the European Shareholder Rights Directive (SRD2). The results obtained thus provide more precise information on the shareholding structure, in particular with regard to individual Shareholders abroad.

THRESHOLD NOTIFICATIONS

During fiscal years ending December 31, 2021 and December 31, 2022, no threshold notifications has been declared.

On September 29, 2020, BlackRock declared that it had breached the threshold of 5% of the capital. With 23,784,446 shares, this company held 5.02% of the shares and the associated voting rights.

To the Company's knowledge, there is no other shareholder that holds either directly or indirectly, alone or jointly, more than 5% of the capital or voting rights.

3. Share capital and voting rights for the last three years

	Number of shares comprising share capital	Theoretical number of voting rights (including treasury shares)	Actual number of voting rights (excluding treasury shares)
2020	473,660,724	473,660,724	472,132,579
2021	475,291,037	475,291,037	474,064,902
2022	523,450,271	523,450,271	522,224,620

There are no double voting rights. To the best of the Company's knowledge, there are no Shareholders' agreements or joint or concerted action agreements. The portion of the L'Air Liquide S.A. share capital comprising the direct registered shares owned by the main Shareholders and pledged is not material.

4. Amount of share capital held by employees

Since 1986, L'Air Liquide S.A. has given the employees of certain Group companies the possibility to subscribe to capital increases reserved for them. At the end of 2022, the share of capital held by employees and former employees of the Group is estimated at 2.8%, of which 2.0% (within the meaning of article L. 225-102 of the French Commercial Code), that is 10,218,398 shares, corresponds to shares subscribed by employees during employee reserved capital increase operations or held through mutual funds.

5. Delegations of authority granted at the General Meeting

Nature of the delegation	Validity of the delegation	Authorized amount	Utilization in 2022
Share buyback	Granted by: GM of May 4, 2022 (4 th) * For a period of: 18 months Maximum price: 250 euros	10% of share capital, representing 47,529,103 shares, for a maximum amount 11,882,275,750.00 euros	Treasury shares As of December 31, 2022, the Company owned 951,833 shares at an average purchase price of 121.07 euros, i.e. a balance sheet value of 115,241,373 euros. Liquidity contract changes Under the liquidity contract, as of December 31, 2022 a total of 10,500 shares were on the balance sheet for a net value of 1,404,536 euros. For more details, see pages 446-447 in the Universal Registration Document.
Cancelation of shares	Granted by: GM of May 4, 2022 (18 th)* For a period of: 24 months	10% of share capital	1,098,900 shares canceled in July 2022 for a total carrying amount of 158,827,214 euros. (See Information on the completion of the Company's share buyback program on page 446).
Increase in share capital via the issuance of shares or marketable securities, with retention of shareholders' preferential subscription rights	Granted by: GM of May 4, 2021 (15 th) * For a period of: 26 months	470 million euros nominal amount (overall limit) Maximum nominal amount of marketable securities: 3 billion euros Amounts may be increased by a maximum of 15%, in the event of oversubscription (16 th resolution GM of May 4, 2021)	None
Capital increase via capitalization of reserves	Granted by: GM of May 4, 2022 (19 th) For a period of: 26 months	For a maximum nominal amount of 300 million euros	In 2022, capitalization of the sum of 268 million euros taken from the "Additional paid-in capital" and "retained earnings" accounts, by means of the creation of 47,547,083 new shares freely attributed to shareholders at 1 new share for every 10 existing shares and 1,358,416 new shares freely attributed to shareholders as part of a 10% bonus attribution.
Share capital increase reserved for employees: ■ as part of a Group savings plan ■ as part of a comparable scheme abroad	Granted by: GM of May 4, 2022 (22 nd) * For a period of: 26 months Granted by: GM of May 4, 2022 (23 rd) * For a period of: 18 months	22 million euros nominal value and 4 million shares. To be deducted from the aforementioned overall limit of 470 million euros	None
Stock options	Granted by: GM of May 4, 2022 (20 th) For a period of: 38 months	2% of the capital on the day the options were granted 0.2% of the capital on the date the options were granted to the Executive Officers	None
Performance shares	Granted by: GM of May 4, 2022 (21 st) For a period of: 38 months	0.5% of the capital on the day the shares were granted 0.1% of the capital on the date the shares were granted to the Executive Officers	460,415 performance shares were granted by the Board on September 29, 2022.

* Renewal to be proposed to the Combined General Meeting on May 3, 2023.

GENERAL INFORMATION

1. General information

Law applicable to L'Air Liquide S.A.

French law.

Incorporation and expiration dates

The Company was incorporated on November 8, 1902, for a set term expiring on May 4, 2119.

Business and Company register

552 096 281 RCS Paris
APE code: 7112B
LEI: 969500MMPQVHK671GT54

Consulting legal documents

The articles of association, Minutes of General Meetings and other Company documents may be consulted at Company head office.

Fiscal year

The Company's fiscal year starts on January 1, and ends on December 31, of the same year.

Address, phone number of the head office and website

75, quai d'Orsay, 75007 Paris
+33 (0)1 40 62 55 55
<https://www.airliquide.com>

The information on the website is not included in the Universal Registration Document unless it is incorporated in it by reference.

2. Articles of association

Section I

NAME – PURPOSE – HEAD OFFICE – TERM

Article 1: Form and name

The Company is a joint stock company, with a Board of Directors. This Company will be governed by the laws and regulations in force and these articles of association.

The Company's name is "L'Air Liquide, société anonyme pour l'étude et l'exploitation des procédés Georges Claude".

Article 2: Purpose

The Company's corporate purpose includes:

- the study, exploitation, sale of the patents or inventions of Messrs. Georges and Eugène Claude pertaining to the liquefaction of gases, the industrial production of refrigeration, liquid air and oxygen, and the applications or utilizations thereof;
- the industrial production of refrigeration, of liquid air, the applications or uses thereof, the production and liquefaction of gases, and in particular oxygen, nitrogen, helium and hydrogen, the applications and uses thereof in all forms, pure, in blends and combinations, without any distinction as to state or origin, in all areas of application of their physical, thermodynamic, chemical, thermochemical and biological properties, and, in particular, in the domains of propulsion, the sea, health, agri-business and pollution;
- the purchase, manufacturing, sale, use of all products pertaining directly or indirectly to the aforementioned corporate purpose, as well as all sub-products resulting from their manufacturing or their use, of all machines or devices used for the utilization or application thereof and, more specifically, the purchase, manufacturing, sale, use of all products, metals or alloys, derived or resulting from a use of oxygen, nitrogen and hydrogen, pure, blended or combined, in particular of all oxygenated or nitrogenous products;
- the study, acquisition, direct or indirect exploitation or sale of all patents, inventions or methods pertaining to the same corporate purposes;

- the exploitation, directly or through the incorporation of companies, of all elements connected, directly or indirectly, with the Company's purpose or likely to contribute to the development of its industry;
- the supply of all services, or the supply of all products likely to develop its clientele in the industry or health sectors.

The Company may request or acquire all franchises, perform all constructions, acquire or lease all quarries, mines and all real property, and take over all operations connected with its corporate purpose, sell or lease these franchises, merge or create partnerships with other companies by acquiring Company shares or rights, through advances or in any appropriate manner. It may undertake these operations either alone or jointly.

Lastly, and more generally, it may carry out all industrial, commercial, real estate, personal or financial operations pertaining directly or indirectly to the corporate purposes specified above.

Article 3: Head office

The Company's head office is located at 75, quai d'Orsay, Paris.

It may be transferred upon a Board of Directors' decision to any other location in Paris or a neighboring department, subject to the ratification of such decision by the next Ordinary General Meeting, and anywhere else by virtue of a decision by an Extraordinary General Meeting.

Article 4: Term

The Company's term, initially fixed at 99 years beginning on February 18, 1929, has been extended as of the Extraordinary General Meeting of May 5, 2020 for a period of 99 years, i.e. until May 4, 2119, except in the event of early dissolution or extension.

Section II

SHARE CAPITAL – SHARES – IDENTIFICATION OF SHAREHOLDERS**Article 5: Share capital**

The share capital has been set at 2,878,976,490.50 euros divided into 523,450,271 fully paid-up shares of a par value of 5.50 euros each.

Share capital is increased under the conditions stipulated by law either by issuing ordinary or preferred shares, or by raising the par value of existing shares. It may also be increased by exercising the rights attached to marketable securities granting access to share capital, under the conditions stipulated by law.

In accordance with prevailing legal provisions, unless otherwise decided by the General Meeting, the shareholders have, in proportion to the amount of shares they own, a preferential subscription right to the shares issued in cash in order to increase share capital.

The share capital may also be reduced under the conditions stipulated by law, in particular, by reducing the par value of the shares, or by reimbursing or redeeming shares on the stock exchange and by canceling shares, or by exchanging existing shares for new shares, in an equivalent or lesser number, with or without the same par value, and with or without a cash balance to be paid or received. The General Meeting may always compel the shareholders to sell or purchase existing shares to permit the exchange of existing shares for new shares, with or without a cash balance to be paid or received, even if such reduction is not a result of losses.

Article 6: Shares

If the new shares are not fully paid up upon issuance, calls for payment shall be performed, on dates set by the Board of Directors, by means of announcements posted one month in advance in one of the Paris official legal publications chosen for the legal publication of the Company's deeds.

Shares not fully paid up shall be held as registered shares until they are fully paid up.

Each payment on any subscribed shares will be registered in an account opened in the name of the subscriber.

All late payments shall automatically bear interest, for the benefit of the Company, as of the due date, without any formal notice or legal action, at the legal interest rate, subject to any personal action that the Company may take against any defaulting shareholder and the compulsory execution measures provided by law.

Article 7: Type of shares

Paid-up shares are registered as registered shares or bearer shares depending on the choice of the shareholder.

The provisions of the aforementioned paragraph also apply to other securities of any nature issued by the Company.

Article 8: Rights and obligations governing shares

Shareholders shall not be liable above the amount of their subscription.

Share ownership automatically binds shareholders to the articles of association and the decisions of the General Meetings.

Subject to legal and regulatory restrictions, voting rights attached to the shares are proportionate to the capital quota they represent and each share confers the right to one vote. In accordance with the option provided for in article L. 22-10-46 of the French Commercial Code, double voting rights will not be conferred to paid-up shares and for which a nominative registration for at least two years in the name of the same shareholder can be proved.

Any share grants entitlement, during the Company's term, as in the event of liquidation, to the payment of an identical net amount for any distribution or redemption.

Shares are freely transferable under the conditions provided by law.

Article 9: Identification of shareholders

The Company may avail itself at any time of the legal and statutory provisions in force permitting the identification of the owners of shares conferring immediately or in the future the right to vote in General Meetings, as well as the number of shares they own.

In addition to the legal obligations to notify the Company, any person, acting alone or jointly, coming in direct or indirect possession of a fraction of the Company's capital or voting rights equal to or greater than 2%, or a multiple of 2% of capital or voting rights (including above the 5% threshold), is required to inform the Company within fifteen days as of the date on which the threshold is exceeded and, as the case may be, independently of the effective transfer date of share ownership. The person shall state the number of shares and marketable securities granting entitlement to capital that he or she owns on the date of notification. Any decrease below the 2% threshold or a multiple of 2% of capital or voting rights shall be notified in the same manner.

To determine share capital and voting rights thresholds, the crossing of which must be declared under the previous paragraph, assimilation rules set out in article L. 233-9 of the French Commercial Code are applied.

In the event of a failure to meet this additional notification obligation, one or several shareholders, owning a fraction of the Company's capital or voting rights amounting to at least 2%, may, at a General Meeting, request that the shares exceeding the fraction which should have been reported, be stripped of their voting rights for any General Meeting held until the end of a two-year period following the date on which the notice is rectified. The request is recorded in the Minutes of the General Meeting.

Article 10: Co-ownership and usufruct

As all shares are indivisible from the point of view of the Company, all joint owners of shares are required to be represented vis-à-vis the Company by a single owner selected from among them or proxy under the conditions provided by law.

The voting right attached to the share is exercised by the beneficial owner at both Ordinary and Extraordinary General Meetings. However, the bare-owner shall be entitled to attend all General Meetings. He or she may also represent the beneficial owner at General Meetings.

The heirs, creditors, trustees or successors of a shareholder may not, on any grounds whatsoever, call for the affixing of seals on the Company's assets and securities, request the distribution thereof, or interfere in any manner whatsoever in its administration.

In order to exercise their rights, they must consult the Company's records and decisions of the General Meetings.

Section III

MANAGEMENT OF THE COMPANY

Article 11: Composition of the Board of Directors

The Company is managed by a Board of Directors, comprising a minimum of three members and a maximum of 14 members (unless temporarily waived in the event of a merger), physical persons or legal entities.

The members of the Board of Directors are appointed by the Ordinary General Meeting for a term of four years expiring at the close of the General Meeting held to approve the Financial Statements for the previous year and which is held in the year during which the mandate expires. As an exception to this rule, the members of the first Board of Directors who exercised functions as members of the Supervisory Board in the Company under its former mode of administration shall be appointed for a period equal to the remaining term of their mandate as members of the Supervisory Board.

The members of the Board of Directors may be re-elected.

Each Director must own at least 500 registered shares in the Company during the term of his functions. If, on the date of his appointment, a Director does not own the required number of shares or if, during his term, he ceases to own them, he is deemed to have resigned with immediate effect if he has not rectified the situation within the time limit stipulated in the regulations in force.

In the event of a vacancy of one or more seats due to death or resignation, the Board of Directors may, between two General Meetings, make temporary appointments. Provisional appointments made by the Board of Directors are subject to the approval of the next Ordinary General Meeting. If the number of Directors falls below the legal minimum, the remaining Directors must immediately convene an Ordinary General Meeting in order to make up the numbers of the Board.

No individual over the age of 70 shall be appointed as a member of the Board of Directors if his appointment increases the number of the members of the Board of Directors who have passed this age to over one third. If during their term, the number of the members of the Board of Directors who have passed 70 years of age exceeds one third of the Board's members, the oldest member of the Board of Directors who has not carried out management functions in the Company is deemed to have resigned at the end of the Annual General Meeting held following the occurrence of this event.

During the Company's term, Directors are appointed and their mandates renewed under the conditions provided by law.

They may be dismissed by the Ordinary General Meeting at any time.

Director(s) representing employees

In accordance with statutory requirements, if the number of members of the Board of Directors, calculated in accordance with article L. 225-27-1-II of the French Commercial Code, is less than or equal to eight, the Group Committee in France shall proceed to appoint a Director representing employees.

If the number of members of the Board of Directors, calculated in accordance with article L. 225-27-1-II of the French Commercial Code, is more than eight, and provided this criterion is still fulfilled on the date of the appointment, a second Director representing employees shall be appointed by the European Works Council.

If the number of members of the Board of Directors, calculated in accordance with article L. 225-27-1-II of the French Commercial Code, was originally more than eight members but becomes less than or equal to eight members, the Director appointed by the European Works Council shall remain in office until his term of office expires.

As an exception to the foregoing, the Director representing employees appointed by virtue of this clause is not required to hold at least 500 registered shares during his term of office.

The Director representing employees shall be appointed for a four-year term expiring at the close of the General Meeting called to approve the Financial Statements for the previous year and which is held in the year in which his term of office expires. The tenure of the Director representing employees may be renewed.

The tenure of the Director representing employees shall be terminated in accordance with statutory requirements and the provisions contained in this clause, particularly in the event of termination of said Director's employment contract; if the criteria for the application of article L. 225-27-1 of the Commercial Code are no longer met, the tenure of the Director(s) representing employees shall expire at the end of the meeting during which the Board of Directors observes that the Company has been released from this obligation.

In the event that the seat of a Director representing employees is vacant for any reason whatsoever, the vacant seat shall be filled under the conditions set forth in article L. 225-34 of the French Commercial Code.

In addition to the provisions of the second paragraph of article L. 225-29 of the French Commercial Code, it is stipulated, if need be, that any failure to appoint a Director representing employees by the body designated herein, in accordance with the law and with this clause, shall not invalidate the resolutions of the Board of Directors.

General information**Article 12: Organization and management of the Board of Directors**

The Board of Directors elects from among its members who are individuals, a Chairman. It determines his remuneration and sets his term of office which may not exceed his term of office as Director. The Chairman may be re-elected.

The Chairman of the Board of Directors performs the duties entrusted to him by law. He chairs the Board of Directors, organizes and manages its work and reports on such work to the General Meeting. He ensures that the Company's bodies operate properly and, in particular, that the Directors are able to fulfill their assignments.

The Board may also appoint from among its members one or more Vice Chairmen, whose term of office shall be determined within the limit of their term as Director and whose role it is, subject to the legal provisions applicable in the event of the temporary impediment or death of the Chairman, to convene and chair Board meetings or chair General Meetings in accordance with these articles of association when the Chairman is impeded.

No Director who does not also assume the role of Chief Executive Officer may be appointed as Chairman of the Board of Directors after the age of 70 (or 72 if the Board decides at its discretion to derogate from this limit in exceptional circumstances). If, during the term of office, this age limit is reached, the Chairman's mandate shall terminate at the close of the General Meeting held to approve the Financial Statements for the year during which he has reached the age limit.

If the Chairman of the Board of Directors also assumes the role of Chief Executive Officer, the applicable age limit is that applicable to the Chief Executive Officer (other than in exceptional circumstances, if the Board decides at its discretion to apply, on a temporary basis, the age limit for the Chairman referred to in the preceding paragraph).

The Chairman and each Vice Chairman may be dismissed by the Board of Directors at any time. They may also be re-elected.

The Board may appoint a secretary who need not be a shareholder or one of its members.

Article 13: General Management**Management organization**

In accordance with the law, the Company's General Management is assumed either by the Chairman of the Board of Directors or by any other physical person, Director or not, appointed by the Board of Directors and who assumes the role of Chief Executive Officer.

The choice between either of the two General Management organizations described above is made by the Board of Directors. The Board of Directors makes its decision relating to the choice of General Management organization under the quorum and majority conditions stipulated in article 14 of these articles of association. The shareholders and third parties are informed of the Board of Directors' decision under the conditions stipulated by the regulations in force.

When the Company's General Management is assumed by the Chairman of the Board of Directors, the Board of Directors must appoint, among its members considered as independent by the Board of Directors, a Lead Director. The conditions of appointment, the tasks and powers of the Lead Director (in particular, if applicable, the power to ask to convene a meeting of the Board of Directors), are set out in the Board of Directors' internal regulations.

The choice made by the Board of Directors remains valid until it decides otherwise.

The Board of Directors will review, as necessary, the choice made each time the mandate of the Chairman of the Board of Directors or the Chief Executive Officer comes up for renewal.

Chief Executive Officer

If the Company's Chief Executive Officer is assumed by the Chairman of the Board of Directors, the following provisions relating to the Chief Executive Officer are applicable (apart from the situation referred to in article 12 paragraph 5).

The Board of Directors sets the term of office and determines the remuneration of the Chief Executive Officer.

No individual over the age limit set by law may be appointed as Chief Executive Officer. If, during the term of office, this age limit is reached, the Chief Executive Officer's mandate shall terminate at the close of the General Meeting held to approve the Financial Statements for the year during which he has reached the age limit set by law.

The Chief Executive Officer may be dismissed at any time by the Board of Directors. The discharge of a Chief Executive Officer who does not assume the role of Chairman may give rise to damages if decided without reasonable cause.

The Chief Executive Officer may always be re-elected.

Powers of the Chief Executive Officer

The Chief Executive Officer is vested with the broadest powers to act in all circumstances on behalf of the Company within the limit of the Company's corporate purpose, the articles of association, and subject to the powers expressly granted by law to General Meetings and the Board of Directors.

The Board of Directors is responsible for defining the decisions of the Chief Executive Officer that require its prior approval. The Board of Directors' prior approval should be sought particularly for external acquisitions or sales of interests or assets, and for investment commitments, in each case under the conditions and exceeding the amounts corresponding to an efficient operation of the Company as set by the Board of Directors. It should also be sought for financing operations of any amount likely to substantially alter the Company's financial structure and for any decision likely to substantially alter the Company's strategic orientations determined by the Board of Directors.

Senior Executive Vice-Presidents

On the Chief Executive Officer's proposal, whether he be Chairman of the Board of Directors or any other person, the Board of Directors may appoint one or more physical persons as Senior Executive Vice-Presidents to assist the Chief Executive Officer.

The maximum number of Senior Executive Vice Presidents is set at three.

In accordance with the Chief Executive Officer, the Board of Directors determines the scope and term of the powers granted to the Senior Executive Vice Presidents and sets their remuneration.

The Senior Executive Vice Presidents have the same powers as the Chief Executive Officer vis-à-vis third parties.

In the event of impediment of the Chief Executive Officer or the cessation of his functions, the Senior Executive Vice Presidents shall maintain, unless decided otherwise by the Board of Directors, their functions and powers until a new Chief Executive Officer is appointed.

The Senior Executive Vice Presidents may be dismissed at any time by the Board of Directors, at the Chief Executive Officer's proposal. They are subject to the age limit provided by law.

Senior Executive Vice-Presidents may be re-elected.

Article 14: Board of Directors' Meetings and deliberations

The Board of Directors meets as often as the interest of the Company so requires, by notice from its Chairman or in the case of impediment, from the oldest Vice Chairman, if one or more Vice Chairmen have been appointed, at the Head Office or in any other location indicated in the Notice of Meeting.

The agenda is set by the Chairman and may only be finalized at the time of the meeting.

Directors representing at least one third of members of the Board of Directors may, while specifying the meeting's agenda, ask the Chairman to summon the Board if it has not met for more than two months.

Likewise, the Chief Executive Officer, if he does not chair the Board of Directors, may ask the Chairman to summon the Board of Directors on any specified agenda.

The Chairman is bound to the requests made to him.

In the event that the Chairman is impeded or fails in performing the aforementioned tasks, the oldest Vice Chairman, if one or more Vice Chairmen have been appointed, shall have the authority to call the Board and set the meeting's agenda at the request of at least one third of members of the Board of Directors or the Chief Executive Officer, as the case may be. In the absence of a Vice Chairman, the minimum of one third of members of the Board of Directors or the Chief Executive Officer, depending on the case, shall have the authority to call the Board and set the meeting's agenda.

Notices may be made by all means, including verbally.

The presence of one half of the members of the Board of Directors is required for the validity of the Board's decisions.

Decisions are made by a simple majority of the votes of the members present or represented. In the event of a tie, the Chairman shall have the casting vote.

The Board of Directors will set its internal rules that it may amend by simple resolution.

The Board of Directors may stipulate in its internal rules that the members of the Board of Directors who take part in the Board's meeting by videoconference or telecommunications in accordance with the conditions provided by the regulations in force shall be considered as present for calculating the quorum and voting majority of the members, for all decisions in which the law does not exclude such possibility.

The Board of Directors may make certain decisions by written consultation of the Directors, under the conditions set forth in the regulations in force.

Article 15: Powers of the Board of Directors

The Board of Directors determines the orientations of the Company's activities and ensures their implementation, in line with its corporate interest, by taking into account the social and environmental stakes of its activity.

Subject to the powers expressly attributed to General Meetings by law and these articles of association and in accordance with the corporate purpose, the Board deals with any issues concerning the smooth running of the Company and manages corporate business pursuant to its decisions.

The Board of Directors may conduct controls and verifications as it deems appropriate.

It may also decide to create Committees of its members responsible for analyzing issues which it itself or its Chairman submits thereto for review. The Board determines the composition and powers of the Committees which conduct their activities under its responsibility.

Issues related to the performance, remuneration and, where appropriate, the renewal of the term of office of the Chairman and Chief Executive Officer, or the Chief Executive Officer, shall be decided by the Board of Directors as and when required, and at least once a year, after analysis by the Committee(s) of the Board of Directors that deal with appointment and remuneration issues.

Article 16: Remuneration

The Ordinary General Meeting may allocate to the members of the Board of Directors, as remuneration for their activity, a fixed annual amount. The Board of Directors is free to distribute the overall sum thus allocated among its members. It may also allocate a greater amount to the Directors who are members of Committees set up within the Board than that allocated to the other Directors.

The Board may allocate exceptional sums to remunerate assignments or mandates entrusted to the members of the Board.

Section IV

STATUTORY AUDITORS

Article 17: Audit of the Company

At the Ordinary General Meeting, the shareholders appoint the principal Statutory Auditors, under the conditions and with the assignments set by law.

Section V

SHAREHOLDERS' MEETINGS

Article 18: Shareholders' Meeting

The General Meeting is comprised of all the shareholders, regardless of the number of shares they own, provided that all shares are fully paid up and that they are not stripped of voting rights.

The right to attend General Meetings of the Company shall be justified by the recording of the shares, in the book-entry form, in the name of the shareholder or of the intermediary registered on behalf of the shareholder within the time frames and under the conditions provided for by French law.

The owners of registered shares or bearer shares must furthermore have filed a proxy or absentee ballot form, or a single document presented in lieu thereof, or if the Board of Directors has so decided, a request for an admission card, at least three days prior to the Meeting. The Board of Directors may however reduce this time period if it deems appropriate. It may also authorize the submission to the Company of the proxy or absentee ballot forms by teletransmission (including electronically) in accordance with prevailing regulatory and legal provisions.

The electronic signature can, when used, take the form of a process that satisfies the conditions defined in the second paragraph of article 1367 of the French Civil Code.

The General Meeting, duly constituted, represents all of the shareholders.

Ordinary and Extraordinary General Meetings, and where necessary, Special General Meetings are convened, meet and deliberate under the conditions provided by law and these articles of association.

Meetings take place at the Head Office or at any other place designated by the author of the notice, even outside of the Head Office or the Head Office's department.

General Meetings are chaired by the Chairman of the Board of Directors or, in his absence, by the Vice Chairman or the oldest Vice Chairman of the Board, if one or more Vice Chairmen have been appointed, or otherwise by a Director specifically appointed for this purpose by the Board.

In the event of impediment of the Vice Chairman or Vice Chairmen when Vice Chairmen have been appointed or if the Board has not appointed a Director, the shareholders shall themselves appoint the Chairman.

The two members of the General Meeting with the highest number of votes and having accepted the position act as ballot inspectors for the General Meeting. The officers of the Meeting appoint a secretary who need not be a shareholder.

In the event that the Meeting is convened by a Statutory Auditor or by a judicial representative, the General Meeting is chaired by the author of the notice.

Upon the decision of the Board of Directors published in the Notice of Meeting or notice of convocation to rely on means of telecommunication, the shareholders who take part in the General Meeting by videoconference or using telecommunications means permitting their identification in accordance with the conditions provided by prevailing law, shall be considered as present for calculating the quorum and voting majority.

Article 19: Powers of Shareholders' Meetings

Ordinary and Extraordinary General Meetings, and where necessary, Special General Meetings allow shareholders to exercise the powers defined by law and these articles of association.

Section VI

INVENTORY – RESERVES – DISTRIBUTION OF PROFITS

Article 20: Fiscal year

The fiscal year begins on January 1 and ends on December 31.

Article 21: Inventory, distribution of profits

The Company's net proceeds, established in the annual inventory, after deducting overheads and other costs, including all amortization, depreciation and provisions, constitute the net profits.

From these profits, less, as the case may be, previous losses, a deduction of at least 5% is first of all made to create the reserve required by law. This deduction ceases to be mandatory when the reserve amounts to 10% of the share capital. It is resumed if this reserve is ever used.

The distributable profits are made up of the annual net profits, less previous losses, as well as the sums to be placed on reserve pursuant to law, plus the profit carried forward.

From these profits, a deduction is made of the amount necessary to pay the shareholders, as a first dividend, 5% of the sums paid-up on their shares, and not amortized, and 5% of the sums from premiums on shares issued in cash, and appearing in a "share premium" account, without it being possible, if the profits of a given year do not permit this payment, for the shareholders to claim such amounts from the profits of subsequent years.

The General Meeting may decide to earmark any portion of the available surplus of said profits it wishes for the creation of general or special providence or reserve funds, under any name whatsoever or even simply as an amount carried forward.

The balance constitutes a surplus fund which is intended for the distribution of the second dividend as well as the amount provisionally assessed as necessary to pay a 10% increase to the registered shares satisfying the following conditions.

Starting on January 1, 1996, the shares registered at December 31 of each year in registered form for at least two years, and which remain registered until the date of the payment of the dividend, will entitle their owners to collect a dividend per share which is 10% higher, rounded down if necessary to the lower centime, than the dividend per share distributed in respect of other shares, provided that the amount of the dividend per share prior to any increase is at least equal to the amount of the dividend per share prior to any increase distributed in the preceding year, adjusted to take into account the change in the number of shares from one year to the next resulting in a capital increase by capitalizing premiums, reserves or profits or a share split.

In the event that, starting on January 1, 1996, the Board of Directors, with the approval of the shareholders decides to increase the capital by capitalizing reserves, profits or premiums, the registered shares held on December 31 prior to the attribution for at least two years and that remain held until the day before the share attribution date will entitle their owners to an attribution of shares which is 10% higher than the attribution made in favor of other shares, and according to the same procedure.

The new shares created in this manner will be comparable in all respects to the existing shares from which they are issued, for calculating the entitlement to the higher dividends and the higher attributions.

The increases defined in each of the two preceding paragraphs may be modified or eliminated by simple decision during the Extraordinary General Meeting, according to the procedures it determines.

Pursuant to law, the number of shares eligible for these increases shall not for any given shareholder exceed 0.5% of the Company's share capital.

The General Meeting held to approve the Financial Statements for the year shall have the possibility of granting to each shareholder, for all or part of the dividend or interim dividends, an option for payment of the dividend or interim dividends in either cash or shares.

Section VII

LIQUIDATION

Article 22: Liquidation

At the expiration of the Company's term, or in the event of early dissolution, the shareholders determine the method of liquidation, in accordance with the conditions stipulated by law. They appoint and determine the powers of one or more liquidators.

The liquidators may, pursuant to a decision of the shareholders, transfer to another company or sell to a company or to any other entity or person, all or part of the assets, rights and obligations of the dissolved Company.

The duly constituted General Meeting retains the same prerogatives during the liquidation as during the Company's term. In particular, it has the power to approve the accounts of the liquidation and to grant a discharge thereof.

After the Company's commitments have been settled, the net proceeds from the liquidation are used first to fully redeem the shares, and the surplus is then distributed equally among them.

Section VIII

DISPUTES

Article 23: Disputes

All disputes which may arise during the Company's term or liquidation, either between the shareholders and the Company or among the shareholders themselves, regarding Company affairs, are settled in accordance with law and submitted to the jurisdiction of the competent Paris courts.

For this purpose, in the event of disputes, all shareholders shall elect domicile in Paris, and all summonses and notices are duly served at this domicile.

Failing election of domicile, summonses and notices are validly served at the Office of Public Prosecution of the French Republic at the Paris judicial court.

3. Dividends

Year	Paid	Ordinary dividend ^(a) Loyalty dividend ^(b)	Number of shares	Distribution (in euros)
2020 ^(e)	May 19, 2021	2.75 ^(a)	472,214,281	1,298,589,273
		0.27 ^(b)	138,818,263	37,480,931
				1,336,070,204
2021 ^(e)	May 18, 2022	2.90 ^(a)	473,263,931	1,372,465,400
		0.29 ^(b)	135,849,648	39,396,398
				1,411,861,798
2022 ^{(c) (d)}	May 17, 2023	2.95 ^(a)	523,450,271	1,544,178,299
		0.29 ^(b)	149,161,232	43,256,757
				1,587,435,057

(a) Ordinary dividend paid on all shares.

(b) Loyalty dividend paid only on registered shares held continuously for two full calendar years.

(c) Subject to the approval of the General Meeting on May 3, 2023.

(d) For 2022, amounts distributed are theoretical values calculated based on the number of shares as of December 31, 2022.

(e) For 2020 and 2021, amounts actually paid.

4. Property, plant and equipment

The Group's facilities and establishments are located in 73 countries ⁽¹⁾ around the world, with extremely diversified production capacities and characteristics.

No material tangible fixed asset exists at Group level.

The number of main plants by unit types is detailed in the Environmental and Societal Reporting – page 424.

5. Documents accessible to the public

Documents, or copies of the documents listed below may be consulted during the period of the Universal Registration Document's validity at Shareholder Services located at the head office of Air Liquide (75, quai d'Orsay, 75007 Paris) and, if applicable, on the Company's Internet website (<https://www.airliquide.com/investors/regulated-information>), subject to the documents made available at the Company's head office or Internet site under the applicable laws and regulations:

- the Company's articles of association;
- all reports, letters and other documents, historical financial information, evaluations and official assertions and declarations prepared by an expert at the Company's request, some of which are included or referred to in this Universal Registration Document;
- historical financial information of the Group, for each of the two fiscal years preceding publication of this Universal Registration Document.

⁽¹⁾ Excluding Russia, where the entities are in the process of being divested. They are no more consolidated following the loss of control on September 1st, 2022.

6. Incorporation by reference

Pursuant to the article 19 of the EC Regulation (EU) 2017/1129, the following information is included in this Universal Registration Document:

- the consolidated and parent company Financial Statements for the year ended December 31, 2020, accompanied by the Statutory Auditors' Reports which appear on pages 273 to 276 and on pages 290 to 292, respectively, of the 2020 Universal Registration Document filed on March 3, 2021 with the French financial markets authority (AMF) under number D.21-0091;
- the financial information shown on pages 16 to 72 of the 2020 Reference Document filed on March 3, 2021 with the French financial markets authority (AMF) under number D.21-0091;
- the consolidated and parent company Financial Statements for the year ended December 31, 2021, accompanied by the Statutory Auditors' Reports which appear on pages 294 to 297,

and on pages 311 to 313, respectively, of the 2021 Universal Registration Document filed on March 7, 2022 with the French financial markets authority (AMF) under number D.22-0070;

- the financial information shown on pages 16 to 74 of the 2021 Universal Registration Document filed on March 7, 2022 with the French financial markets authority (AMF) under number D.22-0070.

The sections not included in these documents serve no useful purpose to investors or are already covered in this Universal Registration Document. Furthermore, the information appearing on the websites mentioned by the hypertext links in this Universal Registration Document does not form part of it unless this information is incorporated therein by reference.

INFORMATION RELATING TO PAYMENT DEADLINES FOR SUPPLIERS AND CUSTOMERS

Pursuant to the provisions of Article D. 441-4 of the French Commercial Code and Decree No. 2015-1553 of November 25, 2015, the breakdown of the balance of trade payables and receivables of L'Air Liquide S.A. as at December 31, 2022 is as follows:

Invoices received outstanding at the closing date of the financial year that has ended

	0 day	1 to 30 days	31 to 60 days	61 to 90 days	91 days or more	Total (1 day and more)
A) Late payment tranches						
Number of invoices concerned	371					1,346
Total amount of invoices concerned (all taxes included) <i>(in millions of euros)</i>	7.5	3.9	1.1	0.6	9.5	15.1
Percentage of total amount of purchases net of taxes for the financial year	2.0%	1.1%	0.3%	0.2%	2.5%	4.1%
B) Invoices excluded from (A) relating to disputed and unrecorded debts						
Number of invoices excluded						0
Total amount of invoices excluded <i>(in millions of euros)</i>						0
C) Reference payment terms used (contractual or statutory period - article L. 441-6 or article L. 443-1 of the French Commercial Code)						
Payment deadlines used to calculate late payments	Contractual deadlines: 0 to 60 days					

Invoices issued outstanding at the closing date of the financial year that has ended

	0 day	1 to 30 days	31 to 60 days	61 to 90 days	91 days or more	Total (1 day and more)
C) Reference payment terms used (contractual or statutory period - article L. 441-6 or article L. 443-1 of the French Commercial Code)						
Number of invoices concerned	89					117
Total amount of invoices concerned (all taxes included) <i>(in millions of euros)</i>	1.1	1.2	0.0	0.2	0.6	2.0
Percentage of total amount of revenues net of taxes for the financial year	1.1%	1.1%	0.0%	0.2%	0.7%	2.0%
B) Invoices excluded from (A) relating to disputed and unrecorded debts						
Number of invoices excluded						
Total amount of invoices excluded <i>(in millions of euros)</i>						
C) Reference payment terms used (contractual or statutory period - article L. 441-6 or article L. 443-1 of the French Commercial Code)						
Payment deadlines used to calculate late payments	Contractual deadlines: 0 to 60 days					

PERSON RESPONSIBLE FOR THE UNIVERSAL REGISTRATION DOCUMENT

1. Person responsible for the Universal Registration Document

François JACKOW, Chief Executive Officer of L'Air Liquide S.A.

2. Certification by the person responsible for the Universal Registration Document

I hereby attest that the information contained in this Universal Registration Document reflects, to the best of my knowledge, the current situation and does not omit any information that could alter its scope.

I certify that, to the best of my knowledge, the Financial Statements have been prepared in accordance with applicable accounting standards and give a true and fair view of the assets and liabilities, and of the financial position and results of the Company and of its consolidated subsidiaries, and that the Management Report defined on the Cross-reference table available in Chapter 7 of this Universal Registration Document pages 488 to 490 provides a true and fair view of the evolution of the business, results and financial condition of the Company and of its consolidated subsidiaries, and a description of the main risks and uncertainties the Company and its consolidated subsidiaries are subject to.

Paris, March 1, 2023

François Jackow

Chief Executive Officer

CROSS-REFERENCE TABLE FOR THE UNIVERSAL REGISTRATION DOCUMENT

The cross-reference table identifies the main information required by the Delegated Regulation No. 2019/980 of the European Commission dated March 14, 2019 (the "Regulation"). The table indicates the pages of this Universal Registration Document where is presented the information related to each item. The table indicates, when required by the Regulation, the pages of the Universal Registration Document related to the year ended December 2021, filed on March 7, 2022 under the number D.22-0070 (the "URD 2021"), and the pages of the Universal Registration Document related to the year ended December 2020, filed on March 3, 2021 under the number D.21-0091 (the "URD 2020"), which are incorporated by reference in this document.

No.	Items of the Annex I of the Regulation	Pages
1.	Persons Responsible, Third party information, experts' reports and competent authority approval	
1.1	Indication of persons responsible	483
1.2	Declaration by persons responsible	483
1.3	Statement or report attributed to a person acting as an expert	N/A
1.4	Information sourced from third parties	N/A
1.5	Approval statement of the competent authority	1
2.	Statutory Auditors	
2.1	Names and addresses of the auditors	316
2.2	Indication of the removal or resignation of auditors	N/A
3.	Risk factors	76 to 88, 301 to 306
4.	Information about the issuer	
4.1	The legal and commercial name of the issuer	473
4.2	The place and the number of registration	473
4.3	The date of incorporation and the length of life of the issuer	473
4.4	The domicile and legal form of the issuer, the legislation under which the issuer operates, its country of incorporation, and the address and telephone number of its registered office	473
5.	Business Overview	
5.1	Main activities	
5.1.1	Nature of the issuer's operations and its principal activities	6, 7, 22 to 35, 48 to 56, 271 to 273 4, 5, 20 to 33, 46 to 53, 249 to 251 of 2021 5, 6, 20 to 34, 44 to 51, 229 to 231 of URD 2020
5.1.2	New products	67 to 72
5.2	Main markets	6, 7, 22 to 35, 48 to 56, 271 to 273 4, 5, 20 to 33, 46 to 53, 249 to 251 of 2021 5, 6, 20 to 34, 44 to 51, 229 to 231 of URD 2020
5.3	The important events in the development of the issuer's business	18 to 20, 50 to 54, 58, 67 to 72
5.4	Strategy and objectives	37 to 47
5.5	Dependence on patents or licenses, industrial, commercial or financial contracts or new manufacturing processes	81
5.6	Basis for statements made by the issuer regarding its competitive position	36
5.7	Investments	
5.7.1	Principal investments realized	18 to 20, 57 to 58, 254 6, 16 to 18, 54, 232 of URD 2021 7, 16 to 18, 52, 212 of URD 2020
5.7.2	Principal investments in progress or for which firm commitments have already been made	57 to 58, 308 to 309
5.7.3	Participation in joint ventures and undertakings	313 to 315, 334
5.7.4	Environmental issues that may affect the utilization of the tangible fixed assets	38 to 40, 64 to 66, 309 to 311, 353 to 386, 424 to 430

No.	Items of the Annex I of the Regulation	Pages
6.	Organizational Structure	
6.1	Brief description of the Group	22 to 36
6.2	List of significant subsidiaries	313 to 315
7.	Operating and Financial Review	
7.1	Financial condition	
7.1.1	Review of the business' development and its financial position in historical interim periods	6 to 7, 9, 48 to 63, 251 to 256, 496 to 497 4 to 5, 8, 46 to 59, 229 to 234, 466 to 467 of URD 2021 5 to 6, 9, 44 to 59, 209 to 214, 406 to 407 of URD 2020
7.1.2	The issuer's future development and its activities in the fields of research and development	67 to 72
7.2	Operating results	
7.2.1	Significant factors materially affecting the issuer's income from operations	49 to 54, 273
7.2.2	Disclosure of material changes in net sales or revenues	49 to 54, 273
8.	Capital Resources	
8.1	Issuer's capital resources	46, 59, 255, 286 to 288, 296 to 301, 496 to 497
8.2	Sources and amounts of the issuer's cash flows	56 to 57, 254
8.3	Information on the borrowing requirements and funding structure	46, 59, 296 to 301
8.4	Restrictions on the use of capital resources	285
8.5	Anticipated sources of funds	46, 59, 296 to 301
9.	Regulatory environment	88, 432 to 434
10.	Trend information	
10.1	The most significant recent trends in production, sales and inventory, and costs and selling prices since the end of the last fiscal year, and the significant change in the issuer's financial or trading position	73, 312
10.2	Known trends, uncertainties, demands, commitments or events that are reasonably likely to have material effect on the issuer's prospects	73
11.	Profit Forecasts or Estimates	
11.1	Statement on the correctness of a forecast included in the prospectus	N/A
11.2	Statement setting out the principal assumptions upon which the issuer has based its forecast or estimate	N/A
11.3	Preparation of the forecast or estimate	N/A
12.	Administrative, Management and Supervisory Bodies and Senior Management	
12.1	Composition – statements	132 to 134, 135 to 138, 143, 160 to 176
12.2	Conflicts of interests	135 to 145, 148, 198
13.	Remuneration and Benefits	
13.1	Remuneration and benefits in kind	177 to 186, 191 to 200, 204 to 205, 208 to 209, 210 to 214, 217 to 222, 226, 307 to 308, 333
13.2	Pension, retirement or similar benefits	186 to 189, 201 to 202, 215 to 216, 224 to 225, 232 to 233, 307 to 308, 333
14.	Board Practices	
14.1	Current terms of office	132 to 134, 160 to 176
14.2	Contracts providing benefits upon termination of employment	N/A
14.3	Information about Audit and Remuneration Committee	151 to 154, 156 to 158, 159
14.4	Statement related to corporate governance	135 to 138, 143, 159
14.5	Potential material impacts on the corporate governance including future changes in the Board and Committees composition	135 to 138, 155 to 156, 172 to 176, 454 to 455
15.	Employees	
15.1	Number of employees	6, 14, 66, 274, 334, 397, 430 to 431
15.2	Shareholdings and stock options	185 to 186, 196 to 200, 214, 221 to 222, 228 to 230, 232 and 237 to 245
15.3	Arrangements involving the employees in the capital of the issuer	237 to 244, 286 to 288, 471
16.	Major Shareholders	
16.1	Identification of the main Shareholders	471
16.2	Voting rights	471
16.3	Ownership and control	471
16.4	Arrangements which may result in a change in control of the issuer	246 to 247

No.	Items of the Annex I of the Regulation	Pages
17.	Related party transactions	307 to 308
18.	Financial Information concerning the issuer's assets and liabilities, financial position and profits and losses	
18.1	Historical financial information and Statement indicating that the historical financial information has been audited	6 to 7, 9, 48 to 63, 251 to 339, 496 to 497 4 to 5, 8, 46 to 59, 228 to 316, 466 to 467 of URD 2021 5 to 6, 9, 44 to 59, 209 to 294, 406 to 407 of URD 2020
18.2	Interim and other financial information	N/A
18.3	Auditing of historical annual financial information	
18.3.1	Statement indicating that the historical financial information has been audited	318 to 321, 335 to 337 294 to 297, 311 to 313 of URD 2021 273 to 276, 290 to 292 of URD 2020
18.3.2	Indication of other information which has been audited	436 to 440, 464 to 468
18.3.3	Source of the data when financial data in the registration document is not extracted from the issuer's audited Financial Statements	N/A
18.4	Pro forma financial information	N/A
18.5	Dividend policy	9, 48, 56, 277, 338 to 339, 445, 451 to 454, 478 to 479, 496 to 497
18.6	Legal and arbitration proceedings	88, 289, 309
18.7	Significant change in the issuer's financial or trading position	312
19.	Additional Information	
19.1	Share capital	
19.1.1	Amount of issued capital	255, 286 to 288, 330, 338 to 339, 470 to 471, 496 to 497
19.1.2	Shares not representing capital	N/A
19.1.3	Shares held by or on behalf of the issuer itself	255, 286 to 288, 471
19.1.4	Convertible securities, exchangeable securities or securities with warrants	N/A
19.1.5	Information about and terms of any acquisition rights and/or obligations over authorized but unissued capital or an undertaking to increase the capital	449 to 450, 459 to 463, 471 to 472, 474 to 475
19.1.6	Information about any capital of any member of the Group which is under option or agreed conditionally or unconditionally to be put under option and details of such options including those persons to whom such options relate	185 to 186, 196 to 200, 214, 221 to 222, 237 to 243, 286 to 288, 307 to 308
19.1.7	History of share capital	255 to 256, 470, 471, 496 to 497 233 to 234, 440, 441, 466 to 467 of URD 2021 213 to 214, 380, 381, 406 to 407 of URD 2020
19.2	Memorandum and articles of association	
19.2.1	Description of issuer's objects and purposes	473
19.2.2	Description of the rights, preferences and restrictions attaching to each class of the existing shares	474
19.2.3	Description of any provision that would have an effect of delaying, deferring or preventing a change in control of the issuer	246 to 247
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21.	Documents on display	480

CROSS-REFERENCE TABLE FOR THE ANNUAL FINANCIAL REPORT

In order to facilitate the reading of this document, the cross-reference table, hereafter, enables to identify in this Universal Registration Document the information which constitutes the annual Financial Report that must be published by the listed companies in accordance with article L. 451-1-2 of the French Monetary and Financial Code and article 222-3 of the French financial markets authority's general regulations.

N°	Required element	Chapter/Pages
1.	Company annual Financial Statements	Chapter 4/p. 322 to 334
2.	Consolidated Financial Statements	Chapter 4/p. 251 to 317
3.	Management Report (within the meaning of the French Commercial Code)	Refer to the cross-reference table for the Management Report on pages 488 to 490
4.	Statement of the persons responsible for the Annual Financial Report	Chapter 7/p. 483
5.	Statutory Auditors' Report on the Company's annual Financial Statements and the Consolidated Financial Statements	Chapter 4/p. 318 to 321, 335 to 337

CROSS-REFERENCE TABLE FOR THE MANAGEMENT REPORT

In order to facilitate the reading of this document, the cross-reference table, hereafter, enables to identify in this Reference Document the Management Report information required by provisions of the French Commercial Code (Code de commerce) applicable to joint stock companies with a Board of Directors.

Required element	Reference text	Chapter/Pages
1. Group situation and activity		
Objective and comprehensive analysis of changes in business, results and the financial situation of the Company and the Group	L. 225-100-1-I-1°, L. 232-1-II, L. 233-6 and L. 233-26 of the French Commercial Code	Key figures/p. 6 to 15 Chapter 1/p. 18 to 33, 36, 48 to 63
Key financial performance indicators	L. 225-100-1-I-2° of the French Commercial Code	Key figures/p. 6, 7, 9, 10 Chapter 1/p. 48 to 66
Key non-financial performance indicators relating to the Company and the Group's specific activity	L. 225-100-1-I-2° of the French Commercial Code	Key figures/p. 11 to 15 Chapter 1/p. 64 to 66
Significant events occurring between the fiscal year closing date and the Management Report preparation date	L. 232-1-II and L. 233-26 of the French Commercial Code	Chapter 4/p. 312
Identity of the main shareholders and voting rights holders in the general assembly, and modifications occurring during the current fiscal year	L. 233-13 of the French Commercial Code	Key figures/p. 10 Chapter 5/p. 403 Chapter 7/p. 471
Existing branch offices	L. 232-1-II of the French Commercial Code	N/A
Significant acquisitions during the fiscal year of equity interests in companies which have their registered office in France	L. 233-6 paragraph 1 of the French Commercial Code	Chapter 6/p. 444
Cross-shareholdings	L. 233-29, L. 233-30 and R. 233-19 of the French Commercial Code	N/A
Company and Group foreseeable trends and outlook	L. 232-1-II and L. 233-26 of the French Commercial Code	Chapter 1/p. 37 to 47, 73
Information on suppliers and customers payment terms	D. 441-4 of the French Commercial Code	Chapter 7/p. 482
Table of Company results over the past five fiscal years	R. 225-102 of the French Commercial Code	Chapter 4/p. 338 to 339
Research and Development activities	L. 232-1-II and L. 233-26 of the French Commercial Code	Chapter 1/p. 67 to 72
Intragroup loans confirmed and auditors declaration	L. 511-6 and R. 511-2-1-3 of the French Monetary and Financial Code	N/A
2. Internal control and risk management		
Description of the main risks and uncertainties and indication of the use of financial instruments by the Company and the Group	L. 225-100-1-I-3° and 4° of the French Commercial Code	Chapter 2/p. 76 to 88 Chapter 4/p. 301 to 306
Description and management of the environmental and climatic risks	L. 22-10-35-1° of the French Commercial Code	Chapter 2/p. 86 to 87
Internal control and risk management procedures implemented by the Company	L. 22-10-35-2° of the French Commercial Code	Chapter 2/p. 89 to 93
Anti-corruption system	Law No. 2016-1691 of December 9, 2016 called "Sapin 2"	Chapter 2/p. 84, 88 Chapter 5/p. 387 to 389
Vigilance Plan and report on its effective implementation	L. 225-102-4 of the French Commercial Code	Chapter 2/p. 95 to 130

Required element	Reference text	Chapter/Pages
3. Corporate governance		
Information on remuneration		
Remuneration policy of the corporate officers	L. 22-10-8-I, paragraph 2 of the French Commercial Code	Chapter 3/p. 227 to 236
Remuneration and benefits of any kind paid during or awarded in respect of the fiscal year to each corporate officer	L. 22-10-9-I-1° of the French Commercial Code	Chapter 3/p. 180 to 209
Relative proportion of the fixed and variable remuneration	L. 22-10-9-I-2° of the French Commercial Code	Chapter 3/p. 180 to 181, 191, 208 and 209
Use of the possibility to reclaim variable remuneration	L. 22-10-9-I-3° of the French Commercial Code	N/A
Commitments of any kind made by the Company for the benefit of corporate officers, corresponding to elements of remuneration, indemnities or benefits due or likely to be due as a result of the assumption, termination or change in their duties, or thereafter	L. 22-10-9-I-4° of the French Commercial Code	Chapter 3/p. 186 to 191, 201 to 204
Remuneration paid or awarded by a company included in the scope of consolidation pursuant to article L. 22-10-9 of the French Commercial Code	L. 22-10-9-I-5° of the French Commercial Code	Chapter 3/p. 209
Ratios between the remuneration of each Executive Officer and the average and median remunerations of the Company employees	L. 22-10-9-I-6° of the French Commercial Code	Chapter 3/p. 205 to 207
Annual change in the remuneration, the Company's performances, the average remuneration of the Company employees and the above-mentioned ratios over the five past fiscal years	L. 22-10-9-I-7° of the French Commercial Code	Chapter 3/p. 207
Explanation on how the total remuneration complies with the remuneration policy adopted, including the way it contributes to long term performances of the Company and the way the performance criteria has been applied	L. 22-10-9-I-8° of the French Commercial Code	Chapter 3/p. 180 to 209
Manner in which the vote of the last Ordinary General Meeting provided for by I of article L. 22-10-34 of the French Commercial Code has been taken into account	L. 22-10-9-I-9° of the French Commercial Code	Chapter 3/p. 180 to 181
Deviation from the procedure for the implementation of the remuneration policy and any derogations	L. 22-10-9-I-10° of the French Commercial Code	N/A
Application of article L. 225-45 al. 2 of the French Commercial Code	L. 22-10-9-I-11° of the French Commercial Code	N/A
Attribution and retention of stock options by Executive Officers Attribution and retention of free share grants to Executive Officers	L. 225-185 of the French Commercial Code L. 225-197-1 and L. 22-10-59 of the French Commercial Code	Chapter 3/p. 185 to 186, 196 to 200
Information on governance		
List of all terms of office and functions held in any company by each Executive Officer during the fiscal year	L. 225-37-4-1° of the French Commercial Code	Chapter 3/p. 132 and 134, 160 to 171
Agreements between an Executive Officer or a major shareholder and a subsidiary	L. 225-37-4-2° of the French Commercial Code	N/A
Summary table of delegations of authority currently in force granted by the Shareholders' Meeting relating to an increase in capital	L. 225-37-4-3° of the French Commercial Code	Chapter 7/p. 472
Exercising conditions of the general management of the Company	L. 225-37-4-4° of the French Commercial Code	Chapter 3/p. 135 to 138
Composition, preparation and organization of the work of the Board of Directors	L. 22-10-10-1° of the French Commercial Code	Chapter 3/p. 135 to 159
Application of the balanced representation principal of women and men in the Board	L. 22-10-10-2° of the French Commercial Code	Chapter 3/p. 135 and 138 to 139
Limits brought by the Board of Directors on Chief Executive Officer's powers	L. 22-10-10-3° of the French Commercial Code	Chapter 3/p. 135 to 138
Reference to a Code of corporate governance and application of the principle comply or explain	L. 22-10-10-4° of the French Commercial Code	Chapter 3/p. 135, 159
Specific conditions governing shareholders' attendance at the Annual General Meeting	L. 22-10-10-5° of the French Commercial Code	Chapter 3/p. 159 Chapter 7/p. 474 and 478
The implementation of an appraisal procedure in respect of transactions in the ordinary course of business entered into on arm's length terms.	L. 22-10-10-6° of the French Commercial Code	Chapter 3/p. 149 and 153
Information that may have an impact in the event of a takeover bid	L. 22-10-11 of the French Commercial Code	Chapter 3/p. 246 to 247

Required element	Reference text	Chapter/Pages
4. Share ownership and capital		
Structure and change in Company capital and threshold notifications	L. 233-13 of the French Commercial Code	Key figures/p. 10 Chapter 5/p. 403 Chapter 7/p. 470, 471
Acquisition and disposal by the Company of treasury shares	L. 225-211 of the French Commercial Code	Chapter 6/p. 446, 447, 453, 454 Chapter 7/p. 472
Employee share ownership	L. 225-102 al. 1 of the French Commercial Code	Chapter 3/p. 237 to 244 Chapter 7/p. 471
Possible adjustments for securities giving access to share capital in case of buybacks of shares or financial transactions	R. 228-90 and R. 228-91 of the French Commercial Code	Chapter 3/p. 238 to 243
Information on Company's shares trading by Executive Officers and related persons	L. 621-18-2 of the French Monetary and Financial Code	Chapter 3/p. 245
Amount of dividends paid out in respect of the three previous fiscal years	243 bis of the French Tax Code	Chapter 6/p. 445 Chapter 7/p. 480
5. Extra-financial Performance Declaration		See Cross-reference table for the Extra-financial Performance Declaration on p. 491
6. Additional information		
Additional tax information	223 quater and 223 quinquies of the French Tax Code	N/A
Injunctions or financial penalties in respect of anti-competitive practices	L. 464-2 of the French Commercial Code	N/A

CROSS-REFERENCE TABLE FOR EXTRA-FINANCIAL PERFORMANCE DECLARATION

Required element	Reference text	Chapter/Pages
Business model	L. 225-102-1 and R. 225-105-I of the French Commercial Code	Chapter 1/p. 21 to 36
Description of the main risks related to the Group activity	L. 225-102-1 and R. 225-105-I-1° of the French Commercial Code	Chapter 5/p. 345 to 391
Information on the manner in which the Group considers societal and environmental implications of its activity	L. 225-102-1-III R. 225-104 and R 225-105-I-2° of the French Commercial Code	Chapter 5/p. 346 to 391
Results of the politics applied by the Group, including key performance indicators	L. 225-102-1 and R. 225-105-I-3° of the French Commercial Code	Chapter 5/p. 345 to 391
Social information	L. 225-102-1 and R. 225-105-II-A-1° of the French Commercial Code	Chapter 5/p. 346 to 353
Environmental information	L. 225-102-1 and R. 225-105-II-A-2° of the French Commercial Code	Chapter 5/p. 353 to 386
Societal Information	L. 225-102-1 and R. 225-105-II-A-3° of the French Commercial Code	Chapter 5/p. 387 to 391
Fight against corruption	L. 225-102-1 and R. 225-105-II-B-1° of the French Commercial Code	Chapter 5/p. 387 to 388
Information related to actions undertaken in favor of Human Rights	L. 225-102-1 and R. 225-105-II-B-2° of the French Commercial Code	Chapter 5/p. 389 to 391
Specific information for companies operating at least one site classed Seveso "high threshold"	L. 225-102-2 of the French Commercial Code	Chapter 5/p. 434
Collective agreements concluded in the Company and their impact on the economic performance of the Company as well as on the working conditions of employees	L. 225-102-1-III and R. 225-105 of the French Commercial Code	Chapter 5/p. 398 to 399
Independent verifier's report	L. 225-102-1-III and R. 225-105-2 of the French Commercial Code	Chapter 5/p. 436 to 440

GLOSSARY

1. Financial glossary

A

Adjusted price

Share price adjusted to take account of changes in capital (issue of new shares, share split, etc.). The adjusted share price is used to produce meaningful comparisons of price changes over time.

AMF (Autorité des Marchés Financiers, the French financial market authority)

The AMF governs and oversees the conduct and professional ethics of the markets and protects the interests of investors and shareholders.

B

Bearer share

Share held in a security account at the shareholder's financial broker.

BlueBook

A global reference manual, the BlueBook brings together Air Liquide's codes, policies and procedures and forms the basis of the Group's internal control and risk management system.

Bond

Tradable debt security issued by a public or private company, a group, an association or a government. Bonds carry fixed interest for a specific period and are redeemable on maturity.

C

CAC 40 (cotation assistée en continu – Continuous-Automated Trading)

The flagship stock market index of Euronext in Paris, the CAC 40 tracks the evolution of a selection of 40 stocks registered on this stock market. A Committee of Euronext specialists regularly revises its composition to ensure that it remains representative. Air Liquide has been included in the CAC 40 since its inception in 1988.

Capital employed

Balance sheet capital corresponding to financial resources used by a company to develop its business. It is the sum of equity, minority interests and net debt.

Capital gain

Gain realized on the sale of a security, that is, the difference between its sale price and its original purchase price, or book value.

Cash flow from operating activities before changes in net working capital

This indicator provides the exact measure of annual cash flow that the Company is able to generate from its operations, independently of the evolution of the working capital requirement, which can be seasonal or erratic. This indicator is presented before payment of interests on net debt and of interests paid on lease liabilities and after payment of income taxes.

Conditional grant of shares to employees (CGSE)

Means of remuneration that grants free shares of the Company to all the employees or a specific employee category. The employee only becomes the owner of the shares after a given acquisition period and according to the plan's conditions. If the acquisition period is shorter than four years, the law provides that the employee must keep his/her shares for a minimum additional two-year period.

Custody fees

Fees charged by a financial intermediary for maintaining a share account. They generally represent a percentage of the portfolio or a set fee per line of shares held. Air Liquide's Shareholder Services provide this service free of charge for shares held in a direct registered account.

D

Deferred settlement service (SRD)

Fee-based service available for the most traded stocks through which settlement for orders or delivery of shares is deferred to the last trading day of the month. Air Liquide shares are eligible for this service.

Diluted earnings per share (Diluted EPS)

Net profit Group share divided by the average weighted number of shares which would be outstanding, assuming conversion of all potential shares (exercise of share subscription options, definitive grant of free shares, etc.). The equivalent accounting term is diluted net profit by share.

Direct registered shares

Direct registered shares are managed by Air Liquide and registered in its accounts. They are held in a securities account opened at Air Liquide.

E

Earnings per share (EPS)

Net profit Group share divided by the average weighted number of shares outstanding. The equivalent accounting term is net profit per share.

ESG (Environmental, Social and Corporate Governance)

Environmental, social and corporate governance are the three main areas appraised by SRI analysts. A positive appraisal of these criteria is a guarantee of quality. It reflects the sustainability of a company's development.

Euronext Paris

Name of the firm which organizes, manages and develops the securities market in Paris, and acts as market regulator (financial transactions, monitoring of companies listed on the stock market) with the delegated authority of the AMF.

Euro Stoxx 50

Stock Exchange index composed of 50 of the highest capitalizations and most actively traded stocks listed in the eurozone.

F**Fractional right**

Part of a share that cannot be distributed in the case of a free share attribution or subscription if the number of shares held is not a multiple of the transaction. Example: in a 1 for 10 free share attribution, a shareholder holding 68 shares is allocated 6 new shares and 8 fractional rights.

Free float

The part of a company's capital publicly available and tradable on the stock markets. The higher the free float, the greater the liquidity of the shares. Nearly 100% of Air Liquide's capital is floated.

Free share attribution

Transaction by which the Company issues new shares by capitalizing undistributed earnings at no cost to shareholders, and allocates new shares in proportion to the number of shares already held. Air Liquide allocates regularly such free shares.

G**Goodwill**

Difference between the purchase price of a company and its net tangible assets on the day of the acquisition.

I**IFRS (International Financial Reporting Standards)**

International accounting standards with effect from January 1, 2005, conceived by the International Accounting Standards Board, or IASB, for quoted companies to harmonize the presentation and increase the transparency of their financial statements.

Indirectly/intermediary registered shares

Indirectly/intermediary registered shares are registered in the Air Liquide accounts and held in a securities account at the shareholder's financial institution.

L**Liquidity**

Ratio of the volume of shares traded over the total number of shares outstanding, which make up the capital.

Loyalty bonus

The loyalty bonus increases the dividend distributed and the number of free shares attributed by 10% for registered shares held for more than two full calendar years and subject to the conditions defined by Air Liquide's articles of association.

Loyalty dividend

Pursuant to Air Liquide's articles of association, a dividend premium of 10%, granted to loyal shareholders for registered shares held continuously for more than two full calendar years and until the date of the payment of the dividend.

M**Market capitalization**

A company's market value equal, at any given time, to the quoted share price multiplied by the total number of shares outstanding.

Market sheet

The market sheet presents all the buy and sell orders for a share, as well as the latest orders executed. Investors can only have access to the five best offers (sales) and the five best demands (purchases).

N**Net Dividend Per Share**

The part of a company's net profit distributed to shareholders. Shareholders vote the dividend at the Annual General Meeting after approval of the financial statements and the allocation of earnings proposed by the Board of Directors.

Net profit (Group share)

Profit or loss made by the Company. It is calculated by adding operating income recurring, other non recurring operating expenses, net finance costs, other net financial expenses, share of profit of associates, profit (loss) from discontinued operations, then subtracting Company tax and minority interests.

Net profit (Group share) recurring

The recurring net profit Group share corresponds to the net profit Group share excluding exceptional and significant transactions that have no impact on operating income recurring.

Net profit recurring excluding IFRS 16

Net profit recurring excluding IFRS 16 corresponds to net profit recurring restated for the impact of IFRS 16. The impact of IFRS 16 includes the reintegration of rental charges less depreciation and other financial charges recognized under IFRS 16.

O**OPCVM (Organisme de Placement Collectif en Valeurs Mobilières – pooled-investment-funds)**

A savings product that makes it possible to hold part of a collective marketable security portfolio handled by a professional, like SICAVs (open-ended investment companies) or FCPs (mutual funds).

Operating income recurring

Annual sales minus the cost of producing, distributing and selling products and the depreciation or amortization on capital expenditures. It provides an operating performance indicator before financing and taxes.

P**Par value**

The issue price of a share as defined in a company's articles of association. A company's total capital is the par value of the share multiplied by the total number of shares outstanding.

PER (Price Earnings Ratio)

The ratio of the market price of a share over earnings per share.

Preferential subscription right

Tradable right giving shareholders priority in subscribing to a number of new shares in proportion to the number of shares already held in the event of a share issue. This is a negotiable right in the stock exchange. In exceptional cases, the Company may ask its shareholders to suspend their subscription right at an Extraordinary Shareholders' Meeting.

Q**Quorum**

Minimum percentage of shares with voting rights required to be present or represented for a General Shareholders' Meeting to be validly constituted.

R**Registered share**

Share registered in the Air Liquide accounts.

Retained earnings

Undistributed profit, held by the Company until further decision.

Roadshow

Organized series of meetings during which a listed company, represented by its management or an Investor Relations team, travels to meet with institutional investors in their offices.

ROCE (Return On Capital Employed)

Return On Capital Employed after tax: ((net profit after tax before deduction of minority interests – net finance costs after taxes) for the period)/(average (total shareholders' equity + net debt) at the end of the three last semesters).

Recurring ROCE (Return On Capital Employed)

The recurring ROCE is calculated in the same manner as the ROCE using the recurring net profit for the numerator.

ROE (Return On Equity)

The ratio of Net Profit over shareholders' equity. It represents the net return on money invested by shareholders.

S**Share**

Tradable security representing a portion of a company's capital. The owner of a share, the shareholder, is a part-owner of the Company and enjoys certain rights. Shares can be held as registered or bearer shares.

Share buyback

Transaction by which a company buys its own stock on the market, up to the limit of 10% of its capital. The transaction requires shareholder approval at the Company's General Shareholders' Meeting. Bought back shares are not taken into account in the net earnings per share calculation and do not receive any dividends.

Shareholders' equity

The part of the Company's capital belonging to its shareholders. It includes the value of issued shares, retained earnings and Net Profit for the financial year.

SRI (Socially Responsible Investment)

Socially responsible investment integrates, over and above the standard financial criteria, environmental, social and corporate governance (ESG) criteria in the analysis process and investment decision.

Stock option

A subscription option that offers the right to subscribe, at a price set in advance, for a fixed period, a company's shares.

Share split

Split of a share's par value to improve its liquidity. A share split leads, in the same proportions, to a split in the share's market value and the multiplication of the number of shares comprising the capital. The value is unchanged.

U**Usufruct**

The legal right to use and derive profit or benefit from property that belongs to another person, as long as the property is not damaged. The holder of an usufruct has the right to use and enjoy the property, as well as the right to receive profits from the fruits of the property.

V**Volatility**

The degree of variation of a share over a given period. It is a risk indicator: the greater the volatility, the higher the risk.

Y**Yield**

Ratio of dividend per share over market share price.

2. Technical glossary

Advanced materials

Replaces the ALOHA range and the advanced precursors and includes ALOHA and Voltaix.

Alternative energy

Energy that represents an alternative to traditional energies, produced by transformation of natural gas or coal using gasification and/or gas cleaning techniques.

ASU

Air Separation Unit.

Biogas

Renewable energy that is produced during the methanization of biomass (treatment of household waste, industrial or agricultural waste, sewage sludge), then transformed using Air Liquide purification and liquefaction technologies.

Bio-GNV

Clean fuel, produced from biogas.

Carrier gases

Carrier gases (nitrogen, oxygen, hydrogen, etc.) are used to transport and dilute process gases or to protect semiconductors from minute dust particles.

Cogen

Cogeneration is the simultaneous production of electricity and steam. It is an environmentally virtuous process as it avoids energy loss by harnessing the heat emitted during electricity production to produce steam.

Cold/cryogenic technologies

All cryogenic-related technologies used, primarily, in the production of air gases.

Cryogenics

Very low temperatures, necessary to the liquifaction of air gases, hydrogen and helium. Concerns temperatures below -150 degrees Celsius.

Fab

Production facility in the electronics sector.

Fellow

The second highest international level of expertise (among four) in the Air Liquide Technical Career Ladder. Fellows are recognized as worldwide authorities within their given field of expertise. Fellows are consultants of the top management in long-term company strategy.

Greenhouse gas (GHG) emissions

- The release of GHGs into the atmosphere. GHGs are the six gases listed in the Kyoto Protocol;
- Direct GHG emissions: emissions from sources owned or controlled by the reporting company. These emissions are reported in "Scope 1";
- Indirect GHG emissions: emissions that are a consequence of the reporting company's activities, but which come from sources owned or controlled by another company. Indirect emissions induced by the production of electricity and steam purchased by the Group are reported in Scope 2, while other relevant indirect emissions are reported in Scope 3;
- Avoided GHG emissions: emission reductions achieved by activities, products or services that emit less GHG than would have been emitted in a reference scenario.

Hot/non cryogenic technologies

All heat-producing technologies, such as combustion processes. For Air Liquide, hot technologies comprise steam reforming of methane to produce hydrogen and carbon monoxide and cogeneration units.

HyCO unit

Unit that simultaneously produces hydrogen (H₂) and carbon monoxide (CO).

NACE

The Statistical Classification of Economic Activities in the European Community, or NACE, refers to the classification of economic activities in force in the European Union (EU).

On-site

On-site installations consist of gas production units installed directly on Industrial Merchant or Electronic customer premises, thanks to which truck deliveries can be avoided.

Orders in hand

They represent the contractual value of all Group and third-party engineering and construction contracts managed by the Engineering & Construction entities, excluding projects under warranty, from the signature date.

Orders intake

They represent the sum of all Group and third-party engineering contracts which entered into force during the period.

Renewable energy

Forms of energy whose production does not lead to a decline in resources on a human scale, e.g. solar, wind, geothermal and hydroelectric energies.

Syngas

Syngas, or synthesis gas, is a gas mixture consisting primarily of hydrogen, carbon monoxide, and in some cases carbon dioxide.

Substrate

Material on or in which components of a micro-electronic system or circuit are manufactured.

Take-or-Pay

Contracts used in Large Industries integrating fixed minimum payments below minimum volume thresholds.

Traditional energy

As opposed to renewable energies, energy whose production exhausts resources by consuming them more quickly than they are created. It is directly produced from fossil fuels: coal, oil, natural gas.

TEN-YEAR CONSOLIDATED FINANCIAL SUMMARY

	2013	2014	2015 restated ⁽ⁱ⁾
Key figures (in millions of euros)			
Consolidated income statement			
Revenue	15,225.2	15,358.3	15,818.5
thereof Gas & Services	13,837.0	13,800.1 ⁽ⁱ⁾	14,752.3
Operating income recurring	2,580.6	2,633.8	2,856.2
Operating income recurring/revenue	16.9%	17.1%	18.1%
Net profit (Group share)	1,640.3	1,665.0	1,756.4
Consolidated cash flow statement			
Cash flow from operating activities before changes in net working capital	2,948.5	2,942.7	3,149.5
Purchase of property, plant and equipment and intangible assets	2,156.1	1,901.7	2,027.7
Purchase of property, plant and equipment and intangible assets/Revenue	14.2%	12.4%	12.8%
Acquisition of consolidated companies and financial assets	391.9	179.0	384.4
Total capital expenditures/Revenue ^(a)	16.7%	13.5%	15.2%
Dividends related to fiscal year and paid in the following year ^(b)	814.6	897.8	920.3
Consolidated balance sheet			
Shareholders' equity at the end of the period	10,625.1	11,536.5	12,405.7
Net debt at the end of the period	6,061.9	6,306.3	7,238.7
Gearing	55.7%	53.3%	56.7%
Capital employed at the end of the period ^(c)	16,950.0	18,133.2	20,009.5
Share capital			
Number of shares issued and outstanding at the end of the period	312,831,676	344,872,883	344,163,001
Adjusted weighted average number of shares outstanding ^(d)	471,785,462	472,541,588	471,994,824
Key figures per share (in euros)			
Net profit per share ^(e)	3.48	3.52	3.72
Dividend per share	2.55	2.55	2.60
Adjusted dividend per share ^(f)	1.68	1.85	1.89
Ratios			
Return on equity (ROE) ^(g)	16.0%	15.3%	14.7%
Return on capital employed after tax (ROCE) ^(h)	11.1%	10.8%	10.3%

Loyalty dividend:

Since 1995, a 10% loyalty dividend is attributed to shareholders holding their shares in registered form for at least two years in the year preceding the period of distribution, and owned until the date of payment of the dividend.

The dividend proposed to the Annual General Meeting for fiscal year 2022 amounts to 2.95 euros per share, and the enhanced dividend to 0.29 euros per share representing a total distribution of 1,587.4 million euros.

(a) The total capital expenditures include the purchases of property, plant and equipment and of intangible assets and the long-term investments. Industrial and financial capital expenditures and transactions with minority shareholders are included.

(b) Including a loyalty dividend of 43.3 million euros in 2022, 39.1 million euros in 2021, 37.4 million euros in 2020, 37.2 million euros in 2019, 32.7 million euros in 2018, 29.6 million euros in 2017, 26.6 million euros in 2016, 26.8 million euros in 2015, 25.7 million euros in 2014 and 23.2 million euros in 2013.

(c) Capital employed at the end of period: shareholders' equity + minority interests + net debt.

(d) Adjusted to take into account, on a basis of a weighted number of shares outstanding, capital increases by capitalization of reserves and additional paid-in capital (2021, 2019, 2017, 2014, 2012), cash subscription of 2016 and treasury shares.

2016	2017	2018	2019	2020	2021	2022
18,134.8	20,349.3	21,011.1	21,920.1	20,485.2	23,334.8	29,934.0
17,331.0	19,641.9	20,106.9	21,040.0	19,655.5	22,267.3	28,573.0
3,023.9	3,363.8	3,448.5	3,793.8	3,789.6	4,160.3	4,861.8
16.7%	16.5%	16.4%	17.3%	18.5%	17.8%	16.2%
1,844.0	2,199.6	2,113.4	2,241.5	2,435.1	2,572.2	2,758.8
3,523.2	4,133.0	4,138.2	4,859.4	4,932.4	5,292.1	6,255.2
2,258.6	2,182.5	2,249.2	2,636.4	2,630.2	2,916.8	3,273.0
12.5%	10.7%	10.7%	12.0%	12.8%	12.5%	10.9%
12,165.3	140.4	129.2	536.9	129.1	659.8	135.8
79.5%	11.4%	11.3%	14.5%	13.5%	15.3%	11.4%
1,031.3	1,160.2	1,163.8	1,309.6	1,335.6	1,412.0	1,587.4 ^(k)
16,741.8	16,317.9	17,783.1	18,870.4	18,542.3	21,462.3	23,736.4
15,368.1	13,370.9	12,534.9	12,373.3	10,609.3	10,448.3	10,261.3
89.7%	80.0%	68.8%	64.0%	55.8%	47.5%	41.8%
32,493.1	30,089.3	30,742.3	31,697.7	29,613.9	32,447.1	34,833.3
388,875,761	428,397,550	429,423,434	473,105,514	473,660,724	475,291,037	523,450,271
483,780,016	518,641,180	518,963,476	519,682,719	520,111,115	520,828,581	522,069,020
3.81	4.24	4.07	4.31	4.68	4.94	5.28
2.60	2.65	2.65	2.70	2.75	2.90	2.95
1.94	2.18	2.18	2.45	2.49	2.63	2.95
13.5%	13.5%	12.6%	12.5%	13.2%	13.1%	12.8%
7.8%	8.2%	8.0%	8.4%	9.0%	9.3%	9.1%

(e) Calculated on the adjusted weighted number of shares outstanding during the year excluding treasury shares.

(f) Adjusted to account for share capital movements.

(g) Return on equity: (Net profit Group share)/(weighted average of shareholders' equity over the year). These aggregates are adjusted for the application of the IFRS16 standard.

(h) Return on capital employed after tax: ((Net profit after tax before deduction of minority interests and excluding IFRS16 impact – net cost of debt after taxes) for the period 2022)/(weighted average of (shareholders' equity excluding IFRS16 impact + minority interests + net debt) at the end of the last three half years (H2 2021, H1 2022 and H2 2022)).

(i) Restatement related to the business line, Global Markets & Technologies.

(j) Restatement related to the classification in accordance with IFRS5 "Non-current Assets Held for Sale and Discontinued Operations".

(k) The dividend payment related to the financial year ended December 31, 2022 is estimated taking into account share buybacks and cancellations.

Cautionary note regarding forward-looking statements

This Universal Registration Document contains information on the Group's prospects, objectives and trends for growth. These forward-looking statements can be identified by the use of the future tense, conditional or of forward-looking terms such as "consider", "intend", "anticipate", "believe", "estimate", "plan", "expect", "think", "aim", or, as the case may be, the negative of these words, or any other terms with a similar meaning. This information is not based on historical data and should not be considered as a guarantee that the prospects and objectives described will be achieved. These statements are based on data, assumptions and estimates considered reasonable by the Group as of the date of this Universal Registration Document. They may be affected by known or unknown risks, uncertainties and other factors which might impact future results, performances and achievements of the Group in a way that is substantially different from the objectives described. This information might therefore change due to uncertainties relating notably to the economic, financial, competitive and regulatory environment or due to the occurrence of certain risks described in Chapter 2 of this Universal Registration Document. This information is given solely as of the date of this Universal Registration Document. All forward-looking statements contained in this Universal Registration Document are qualified in their entirety by this cautionary note.

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Air Liquide - Company established for the study and application of
processes developed by Georges Claude with issued capital of €2,878,976,490.50