PRESS RELEASE AND ACTIVITY REPORT

Paris, July 29, 2021

First Half Results

Outstanding H1 2021 performance:

- **increase in sales and operating margin**
- **strong investment portfolio**
- **numerous initiatives related to sustainable development**

Key Figures (in millions of euros)	H1 2021	2021/2020 as published	2021/2020 comparable [a]
Group Revenue	**10,846**	**+5.6%**	**+9.2%**
of which Gas & Services	*10,350*	*+4.3%*	*+8.0%*
Operating Income Recurring (OIR)	**1,948**	**+7.4%**	**+17.1%**
Group OIR Margin	18.0%	+40 bps	
Variation excluding energy		**+100 bps**	
Gas & Services OIR Margin	20.0%	+40 bps	
Variation excluding energy		+120 bps	
Net Profit (Group Share)	1,239	+14.9%	
Net Profit Recurring (Group Share) [b]	1,239	+11.3%	
Earnings per Share (in euros)	**2.63**	**+14.8%**	
Cash flow from operating activities before changes in net working capital	2,483	+4.8%	
Net Debt	€12.0 bn		
Return on Capital Employed after tax - ROCE	9.5%	+120 bps	
Recurring ROCE [c]	**9.0%**	+60 bps	

(a) Change excluding the currency, energy (natural gas and electricity) and significant scope impacts, see reconciliation in appendix.
(b) Excluding exceptional and significant transactions that have no impact on the operating income recurring, see reconciliation in appendix.
(c) Based on the recurring net profit, see reconciliation in appendix.

Commenting on the 1st half of 2021, **Benoît Potier, Chairman and CEO of Air Liquide**, said:

*"This **first half excellent performance** reflects the **momentum of our markets and the acceleration in sales in the 2nd quarter. These exceeded the level seen in 2nd quarter of 2019**[1]**, across all regions and for all activities.** Sales for the half year were close to **11 billion euros**, marking strong growth of **+9.2%** on a comparable basis, versus the 1st half of 2020.*

*In **Gas & Services**, the **rebound in industrial activities** was particularly strong in the 2nd quarter, both in Large Industries and Industrial Merchant. Electronics also recorded strong growth at the end of the half year. The **Healthcare** business line remained at a high level, with **teams strongly committed** to the fight against the pandemic. Geographically speaking, **markets are growing in all regions**, although some countries remain vulnerable to the pandemic situation.*

***Engineering & Construction** and **Global Markets & Technologies** activities posted strong growth.*

*The Group's **operating margin** rose again sharply, by **+100 basis points**, excluding the energy impact. This **improvement** reflects the contribution of **the structural margin improvement program**, through ongoing recurring efficiency programs in the amount of **206 million euros**, in line with the annual objective set at more than 400 million euros. It also illustrates the strong **pricing policy**, in particular in Industrial Merchant, **active business portfolio***

management *and is temporarily supported by the effects of the* ***exceptional cost containment plan****, which will diminish with the recovery in activity.*

Net profit rose significantly by +14.9% *to more than* ***1.2 billion euros.*** *The* ***cash flow to sales ratio*** *also increased and reached* ***23%****. The* ***debt-to-equity ratio*** *was down sharply versus the end of June 2020.*

With almost half of the projects linked to the energy transition, ***12-month investment opportunities are numerous and total 3 billion euros****.* ***Investment decisions for the half year were high at 1.9 billion euros****, including* ***the acquisition of the Sasol oxygen production plants*** *in Secunda, South Africa. Solid, diversified and largely focused on the energy transition, the* ***project backlog*** *totaling* ***3.1 billion euros*** *is particularly promising for future growth.*

With a ***growth model combining financial performance with societal performance****, Air Liquide is a major player in a sustainable future and is particularly committed to developing a* ***low-carbon society*** *through the reduction of CO_2 emissions and the implementation of hydrogen solutions.*

In 2021, in a context of recovery in the second half of the year, Air Liquide is confident in its ability to further increase its operating margin and to deliver recurring net profit growth(2), at constant exchange rates."

(1) Due to the exceptional impact of the pandemic in the 1st half of 2020, a comparison with 2019 1st half sales has been introduced for context in reviewing 1st half 2021 performance. The comparisons between 2021 and 2019 (over the half year or over the quarter) are calculated by adding 2020 and 2021 comparable effects. They are given as a reference point and do not constitute an alternative performance measure.
(2) Excluding significant and exceptional items with no impact on recurring operating income. Excluding the impact of a possible US tax reform in 2021.

Highlights of the 1st quarter

▪ **Sustainable development**:

- Presentation of ambitious sustainable development objectives, based on three pillars:
  - **ACT for a low-carbon society**: Air Liquide has set itself the goal of achieving **carbon neutrality by 2050, with a 33% reduction in its CO_2 emissions by 2035**, and of developing **a wide range of low-carbon solutions** for its industrial customers so that they can reduce their own emissions.
  - **Work toward better Healthcare** by improving the **quality of life of chronic patients in mature economies** and by **facilitating access to medical oxygen** for rural communities in low- and middle-income countries.
  - **Trust as the base to engage with employees,** notably by providing a common basis of care coverage for 100% of its employees **and to adhere to best governance practices**.
- Launch of its **first green bond issue**, raising **500 million euros** dedicated to several sustainable development projects, notably in hydrogen and biogas.
- Partnership with Rothschild & Co and the Solar Impulse Foundation to launch a **200-million-euro investment fund** to support the development of high-potential SMEs working on environment-friendly solutions.

▪ **Hydrogen**:

- **Memorandum of understanding signed with Airbus and Groupe ADP in preparation for the arrival of hydrogen at airports** by 2035 as part of the development of the hydrogen-powered aircraft.
- **Memorandum of understanding signed with Siemens Energy to develop high-capacity electrolyzers in Europe** and to sustainably produce low-carbon hydrogen.

- Inauguration of the world's largest **carbon-free hydrogen production unit based on membrane electrolysis** in Canada, with a capacity of 20 MW.
- Acquisition of a 40% stake in the share capital of H2V Normandy, with a view to building a **low-carbon hydrogen electrolyzer** complex in France with a capacity of up to 200 MW.
- Supply and installation of eight hydrogen distribution units for the **Daxing Station in Beijing, China — the largest hydrogen station in the world**.
- Completion of the first phase of the construction of ultra-high purity low-carbon hydrogen electrolyzers in Taiwan.

■ **Healthcare**:

- **Continued mobilization of teams** to the fight against the pandemic all over the world. Contributing to establishing an airbridge to supply oxygen to Indian hospitals.

■ **Industry & Decarbonization**:

- **Completed the acquisition** of 16 Sasol air separation units (ASUs) in Secunda, South Africa, with the aim to reduce CO_2 emissions linked to oxygen production by 30% to 40% over the next 10 years.
- **Memorandum of understanding signed by Air Liquide, Borealis, Esso S.A.F., TotalEnergies and Yara International ASA** to develop a CO_2 capture and storage infrastructure and contribute to the **decarbonization of the Normandy industrial basin**.
- Memorandum of understanding signed with ArcelorMittal, aimed at implementing solutions to **produce low-carbon steel** in Dunkirk.
- First **long-term Power Purchase Agreement for renewable electricity** in the Netherlands, for a total capacity of 25 MW.
- In **Kazakhstan**, acquisition and integration by Air Liquide Munay Tech Gases, a 75% subsidiary of Air Liquide, of the industrial gas production plants of the Atyrau refinery. ALMTG will operate these production plants for KazMunayGas under a long-term contract.
- **Long-term investments and contracts** to supply industrial gases. In China with BOE, a world leader in flat panels and an Internet of Things specialist, as well as with a major producer of flash memory chips, and in steel with Shagang Group. In Russia with the Severstal steel company. Together with the chemicals company BASF, for its new battery materials site in Germany, and in South Korea to increase hydrogen and carbon monoxide volumes by 20% in the Yeosu industrial complex.

Group revenue for the 1st half of 2021 totaled **10,846 million euros**, up **+9.2%** on a comparable basis with the 1st half of 2020 which was affected by the public health crisis. Sales posted strong comparable growth of +15.2% during the 2nd quarter of 2021 and were up +6% versus the 2nd quarter of 2019. **Engineering & Construction** consolidated revenue was up **+65.9%** in the 1st half on a comparable basis and **Global Markets & Technologies** was up **+34.9%**. The Group revenue was up **+5.6%** as published in the 1st half despite the strong negative currency impact (-4.8%) and significant scope impact (-2.8%), which were partly offset by the energy impact (+4.0%).

Gas & Services revenue amounted to **10,350 million euros** during the 1st half, representing an increase of **+8.0%** on a comparable basis. All business lines enjoyed strong growth, and **sales in the 2nd quarter of 2021 were higher than those in the 2nd quarter of 2019 across all business lines and all regions**. **Sales as published** for the 1st half of 2021 were up by **+4.3%** despite the unfavorable currency impact (-4.9%) and significant scope impact (-3.0%), which were partially offset by the energy impact (+4.2%). The significant scope impact reflects the sale of Schülke in Healthcare and the reduction or sale of the Group's stakes in several non-strategic distributors in Japan. These sales will no longer have an impact during the 2nd half of 2021.

- Gas & Services revenue in the **Americas** totaled **4,059 million euros**, up **+7.3%** on a comparable basis with the 1st half of 2020 which had been down -5.1%. In North America, all the business lines returned to a close or higher level in the 2nd quarter than the same period in 2019. In Latin America, sales enjoyed strong growth in all business lines in the 1st half. Across the Americas region, Large Industries revenue was up +7.7% on a comparable basis and Industrial Merchant revenue was up +6.1%. Healthcare sales increased by +16.9% driven by the medical oxygen demand and the pick-up in activity in proximity care and Home Healthcare. Electronics revenue was up +2.7%, thanks to the strong momentum of Carrier gases sales.

- Revenue in **Europe** amounted to **3,657 million euros** and was up **+7.4%** on a comparable basis. Sales in industrial activities were higher than those in the 1st half of 2019. Large Industries sales (+4.1%) enjoyed strong activity in the Steel and Chemicals sectors. Industrial Merchant sales were up +11.3% and reached a higher level than in the 1st half of 2019. Healthcare (+6.4%) remains committed to fighting the pandemic and has seen a pick-up in the Home Healthcare business and surgical activities in hospitals.

- Sales in **Asia Pacific** increased by **+8.7%** on a comparable basis and totaled **2,326 million euros**. All business lines and regions posted growth in the 1st half of 2021, thanks to a favorable basis of comparison with the 1st half of 2020 which was down -2.1% due to the public health crisis. Volumes were strong in Large Industries, which enjoyed an increase in revenue of +9.8%. The strong growth in Industrial Merchant sales (+12.3%) was mainly driven by high activity in China which posted double-digit volume growth compared with the 1st half of 2019. In Electronics (+4.5%), Carrier gases contributed significantly to growth and benefited from the ramp-up of several units.

- Revenue in the Middle East and Africa region stood at **308 million euros**, up by **+18.9%** on a comparable basis over the 1st half.

In the 1st half, **Healthcare** sales posted significant growth of **+9.4%** on a comparable basis, with the teams still fully committed to the fight against Covid-19. **Large Industries** revenue was up **+7.3%** thanks mainly to the contribution from new facilities and the strong demand from the Steel and Chemicals sectors. **Industrial Merchant** sales were up **+8.5%** driven by a pick-up in sales volumes, strong activity in China and a solid +1.9% pricing impact over the half year. **Electronics** sales increased by **+4.7%**, with Carrier gases sales driven by the ramp-up of new production units.

Engineering & Construction consolidated revenue were up **+65.9%** and stood at **169 million euros** in the 1st half of 2021. Order intake totaled **542 million euros**, thanks to positive momentum in Asia and the energy transition.

Global Markets & Technologies sales totaled **327 million euros**, with strong comparable growth of **+34.9%** supported notably by the biogas activity and high value added technological equipment sales.

Efficiencies[1] totaled **206 million euros** in the 1st half, up +3.5% and in line with the annual target of more than 400 million euros. Moreover, the exceptional cost containment plan launched in response to the health crisis was

[1] *See definition in the Appendix.*

extended and adapted to the gradual recovery in activity. The impact of these exceptional measures is expected to fall sharply during the 2nd half, in line with the expected recovery in activity.

Group **Operating Income Recurring (OIR)** reached **1,948 million euros** in the 1st half of 2021, an increase of +7.4% and of **+17.1%** on a comparable basis, which is significantly higher than the comparable sales growth of +9.2% over the half-year.

The operating margin (OIR to revenue) stood at **18.0%**, representing a marked improvement of **+100 basis points excluding the energy impact** compared with the 1st half of 2020. Gas & services **operating margin** stood at **20.0%**, a significant improvement of **+120 basis points excluding the energy impact**. On a reported basis, operating margin improvement was limited due to a significant increase in energy prices during the 1st half of 2021, which was contractually passed through to customers and therefore had a dilutive impact on the published margin.

The **net profit (Group share)** amounted to **1,239 million euros** in the 1st half of 2021, an increase of **+14.9%** as published and **+23.1% excluding the currency impact**. The **recurring net profit (Group share)**[2] increased by +11.3% and **+19.3% excluding the currency impact**. **Net earnings per share** stood at **2.63 euros per share** and rose sharply by **+14.8%** compared with 2.29 euros in the 1st half of 2020.

Cash flow from operating activities before changes in net working capital amounted to **2,483 million euros** during the 1st half of 2021, representing an increase of +4.8% as published and **+10.0% excluding the currency impact**. This corresponds to a high level of **22.9% of sales** compared with 23.1% in the 1st half of 2020, improving by **+70 basis points excluding the energy impact**.

Gross industrial capital expenditure amounted to **1,439 million**, an increase of +9.0% as published compared with the 1st half of 2020 and of +14.1% excluding the currency impact. This represented **13.3% of sales**, reflecting strong project development. **Financial investments** were at **569 million euros**, including approximately 480 million euros for the acquisition of the 16 Sasol air separation units in South Africa.

The **net debt-to-equity ratio**, adjusted for the seasonal effect of the dividend payment, stood at **56.1%**, down sharply compared with 64.5% at the end of June 2020.

In the 1st half of 2021, **industrial and financial investment decisions** totaled **1,908 million euros**, up sharply compared to 1 331 million euros in the 1st half 2020.

The **investment backlog** remained high at **3.1 billion euros,** evenly distributed across various business sectors and geographies.

The **additional contribution to revenue** of unit start-ups and ramp-ups increased, totaling **130 million euros** over the 1st half of 2021. For the year 2021, this **contribution** is estimated at **320 million euros**, including **70 million** from the acquisition of the 16 Sasol units in South Africa.

The **12-month portfolio of investment opportunities** stood at **3.0 billion euros** at the end of June 2021. The **energy transition** represents **45%** of this portfolio and includes several projects for low-carbon hydrogen production by electrolysis, hydrogen liquefaction and carbon capture and storage ("CCS") in Large Industries.

The **return on capital employed after tax (ROCE)** was **9.5%** for the 1st half of 2021. **Recurring ROCE**[3] stood at **9.0%**, an increase of **+60 basis points** compared with the 1st half of 2020.

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[2] *See definition and reconciliation in the Appendix*
[3] *See definition and reconciliation in the Appendix*

Table of Contents

H1 2021 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.

Due to the exceptional impact of the pandemic in the 1st half of 2020, a comparison with 2019 1st half sales has been introduced for context in reviewing 1st half 2021 performance. **The comparisons between 2021 and 2019 (over the half year or over the quarter) are calculated by adding 2020 and 2021 comparable effects. They are given as a reference point and do not constitute an alternative performance measure. The comparable growths mentioned below are calculated compared to the same period of 2020 except when 2019 is mentioned.**

Key Figures

(in millions of euros)	H1 2020	H1 2021	2021/2020 published change	2021/2020 comparable change [a]
Total Revenue	**10,273**	**10,846**	**+5.6%**	**+9.2%**
Of which Gas & Services	*9,920*	*10,350*	*+4.3%*	*+8.0%*
Operating Income Recurring (OIR)	1,813	1,948	+7.4%	+17.1%
Group OIR Margin	17.6%	18.0%	+40 bps	
Variation excluding energy			*+100 bps*	
Other Non-Recurring Operating Income and Expenses	(92)	(40)		
Net Profit (Group Share)	1,078	1,239	+14.9%	
Net Profit Recurring (Group Share) [b]	1,113	1,239	+11.3%	
Earnings per Share (in euros)	**2.29**	**2.63**	**+14.8%**	
Cash flow from operating activities before changes in net working capital	2,371	2,483	+4.8%	
Net Capital Expenditure [c]	1,309	1,913		
Net Debt	€13.2 bn	€12.0 bn		
Net Debt to Equity ratio [d]	64.5%	56.1%		
Return on Capital Employed after tax - ROCE	8.3%	9.5%	+120 bps	
Recurring ROCE [e]	**8.4%**	**9.0%**	**+60 bps**	

(a) Change excluding the currency, energy (natural gas and electricity) and significant scope impacts, see reconciliation in appendix.
(b) Excluding exceptional and significant transactions that have no impact on the operating income recurring, see reconciliation in appendix.
(c) Including transactions with minority shareholders.
(d) Adjusted to spread the dividend payment in 1st half out over the full year.
(e) Based on the recurring net profit, see reconciliation in appendix.

Income Statement

REVENUE

Revenue *(in millions of euros)*	**H1 2020**	**H1 2021**	**2021/2020 published change**	**2021/2020 comparable change**
Gas & Services	9,920	10,350	+4.3%	+8.0%
Engineering & Construction	104	169	+61.9%	+65.9%
Global Markets & Technologies	249	327	+31.6%	+34.9%
TOTAL REVENUE	**10,273**	**10,846**	**+5.6%**	**+9.2%**

Revenue by quarter (in millions of euros)	**Q1 2021**	**Q2 2021**
Gas & Services	5,103	5,247
Engineering & Construction	76	93
Global Markets & Technologies	155	172
TOTAL REVENUE	**5,334**	**5,512**
2021/2020 Group published change	**-0.7%**	**+12.4%**
2021/2020 Group comparable change	**+3.8%**	**+15.2%**
2021/2020 Gas & Services comparable change	**+2.8%**	**+13.7%**

Group

Group revenue for the 1st half of 2021 totaled **10,846 million euros**. This represented an increase of **+9.2%** on a comparable basis with the 1st half of 2020 which was affected by the public health crisis. Sales posted strong growth of +15.2% during the 2nd quarter of 2021 and were up +6% versus the 2nd quarter of 2019. **Engineering & Construction** consolidated revenue was up **+65.9%** compared with an activity level which was slower due to the pandemic during the 1st half of 2020. **Global Markets & Technologies** was up **+34.9%**, mainly driven by strong momentum in the biogas business. The Group revenue was up **+5.6%** as published despite the strong negative currency impact (-4.8%) and significant scope impact (-2.8%), which were partly offset by the energy impact (+4.0%).

Gas & Services

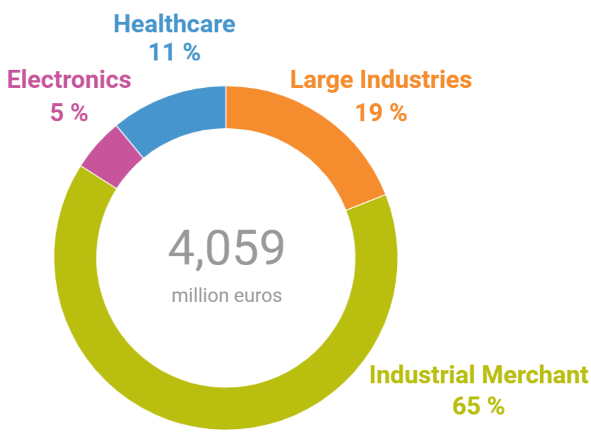
Gas & Services revenue amounted to **10,350 million euros** during the 1st half, representing an increase of **+8.0%** on a comparable basis. All business lines enjoyed strong growth, and **sales in the 2nd quarter of 2021 were higher than those in the 2nd quarter of 2019 across all business lines** (Large industries +6%, Industrial Merchant +1%, Healthcare +16% and Electronics +8%) **and all regions** (Americas +4%, Europe +7%, Asia-Pacific +6%, Middle-East and Africa +8%). **Healthcare** sales posted significant growth of **+9.4%**, with the teams still fully committed to the fight against Covid-19. **Large Industries** revenue was up **+7.3%** thanks mainly to the contribution from new facilities and the strong demand from the Steel and Chemicals sectors. **Industrial Merchant** sales were up **+8.5%** driven by a pick-up in volumes, strong activity in China and a solid +1.9% pricing impact over the half year. **Electronics** sales increased by **+4.7%** and by +5.2% excluding Equipment & Installations sales, with Carrier gases sales driven by the ramp-up of new units. Sales as published for the 1st half of 2021 were up by **+4.3%** despite the unfavorable currency impact (-4.9%) and significant scope impact (-3.0%), which were partially offset by the energy impact (+4.2%). The significant scope impact reflects the sale of Schülke in Healthcare and the reduction or sale of the Group’s stakes in several non-strategic distributors in Japan. These sales will no longer have an impact during the 2nd half of 2021.

Revenue by geography and business line *(in millions of euros)*	**H1 2020**	**H1 2021**	**2021/2020 published change**	**2021/2020 comparable change**
Americas	3,975	4,059	+2.1%	+7.3%
Europe	3,440	3,657	+6.3%	+7.4%
Asia-Pacific	2,236	2,326	+4.0%	+8.7%
Middle East & Africa	269	308	+15.0%	+18.9%
GAS & SERVICES REVENUE	**9,920**	**10,350**	**+4.3%**	**+8.0%**
Large Industries	2,430	2,916	+20.0%	+7.3%
Industrial Merchant	4,509	4,595	+1.9%	+8.5%
Healthcare	1,959	1,835	-6.3%	+9.4%
Electronics	1,022	1,004	-1.7%	+4.7%

Americas

Gas & Services revenue in the Americas totaled **4,059 million euros** in the 1st half of 2021, up **+7.3%** compared with the 1st half of 2020 which had been down -5.1%. In North America, all the business lines returned to a close or higher level in the 2nd quarter than the same period in 2019. In Latin America, sales enjoyed strong growth in all business lines. Across the Americas region, Large Industries revenue was up +7.7%, while Industrial Merchant revenue was up +6.1%. Healthcare sales increased by +16.9% driven by exceptionally high medical oxygen demand due to the pandemic and the pick-up in activity in proximity care in the United States and Home Healthcare in Canada and Latin America. Electronics revenue was up +2.7%, thanks to the strong momentum of Carrier gases sales.

Americas Gas & Services H1 2021 Revenue



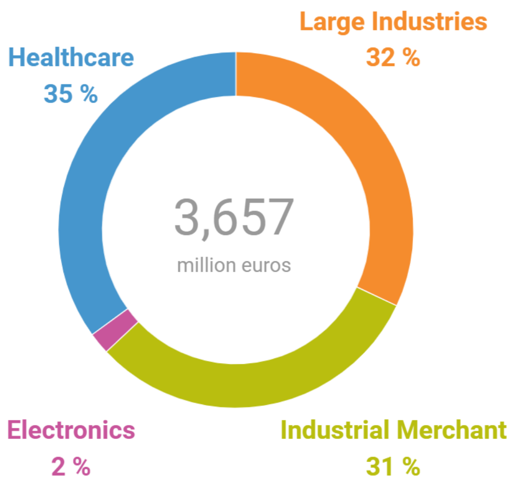
- **Large Industries** revenue increased by **+7.7%** during the 1st half. In the United States at the end of June, air separation units were operating at full capacity, driven by the strong oxygen demand for Steel and Chemicals following the slowdown caused by the winter storm on the Gulf Coast in February. Hydrogen demand for Refining increased during the 2nd quarter and volumes returned to levels close to those seen in the 2nd quarter of 2019. In Latin America, oxygen and hydrogen volumes were up markedly, due mainly to the ramp-up of new hydrogen units in Argentina and Mexico.
- **Industrial Merchant** sales were up **+6.1%** in the 1st half. In the United States, after having been affected by a winter storm in February, gas sales continued to recover, returning to levels higher than in the 1st half of 2019, whereas hardgoods sales remained below. Sales to consumer markets such as Food, Pharmaceuticals and Research were higher than in 2019, sales to the Metal Fabrication, Energy and Materials markets were also up, while sales to the Non-residential construction sector remained sluggish. In Latin America, business momentum was strong and sales were higher than pre-pandemic levels, in particular with respect to liquid gases in Argentina and Mexico and cylinder gases in Brazil. Pricing impacts sequentially rose during the 2nd quarter following pricing campaigns launched at the beginning of the year, up +2.7% over the half year.
- **Healthcare** revenue was up **+16.9%** in the 1st half with exceptionally high medical oxygen sales across the region, particularly in Latin America during the 2nd quarter as part of the fight against the pandemic. In the United States, the proximity care business returned to normal, with elective surgery gradually restarting. Home Healthcare posted strong growth in Latin America, particularly oxygen therapy in Brazil and Argentina in the 2nd quarter; activity picked up in Canada where the reopening of clinics meant new patients were prescribed home-based therapies, in particular for sleep apnea.

- **Electronics** sales were up **+2.7%** in the 1st half and by +5.0% excluding Equipment & Installations. Sales of carrier gases and Specialty Materials enjoyed double-digit growth, which was partly offset by a decline in Equipment & Installation sales.

Europe

Revenue in Europe was up **+7.4%** and amounted to **3,657 million euros.** Industrial sales were higher than those in the 1st half of 2019. Large Industries sales (+4.1%) enjoyed strong activity in the Steel and Chemicals sectors. Industrial Merchant sales were up +11.3% and reached a higher level than in the 1st half of 2019. Accounting for more than a third of Gas and Services sales in Europe, Healthcare (+6.4%) remains committed to fighting the pandemic and has seen a pick-up in the Home Healthcare business and surgical activities in hospitals.

Europe Gas & Services H1 2021 Revenue



- **Large Industries** sales were up **+4.1%**, driven by strong demand in Steel and Chemicals, particularly in Germany where volumes have returned to the levels of the 1st half of 2019, thanks notably to the recovery of the Automobile sector. Hydrogen demand for Refining saw a significant sequential improvement in Benelux and France but remained weak in Southern Europe. Sales were up in Eastern Europe thanks to strong demand for oxygen in Poland and the acquisition of a hydrogen production unit in Kazakhstan in the 1st quarter.
- **Industrial Merchant** revenue posted strong growth of **+11.3%**. All markets were well oriented and volumes exceeded those of the 1st half of 2019. Liquid gas sales were strong in the 2nd quarter, with volumes up sharply compared with the 2nd quarter of 2019 in France and Italy. The business line enjoyed strong growth in the East of Europe, notably in Poland, Russia and Turkey. Pricing impacts were up sequentially in the 2nd quarter, taking the average over the half year to +1.3%.
- In **Healthcare**—a business line that remains committed to fighting Covid-19—sales were up **+6.4%** in the 1st half. Medical gases revenue increased across Europe, supported by the combined impact of the pandemic and the pick-up in surgical activities in hospitals. Equipment sales gradually returned to normal and are to compare with 2020 revenue which was exceptionally high. This basis of comparison is expected to ramp up during the second part of 2021, with volumes of medical oxygen and equipment supplied to hospitals having reached record-high levels during the 2nd half of 2020. The recovery accelerated in the Home Healthcare business, driven by a wider offering for diabetes treatment in France and its launch in new countries such as Germany and the United Kingdom. A pick-up in prescriptions for sleep apnea also contributed to this momentum, notably in France, the Iberian Peninsula and Germany. Finally, Seppic sales were up sharply due to strong demand for specialty ingredients for cosmetics and adjuvants for poultry and swine vaccines.

Europe

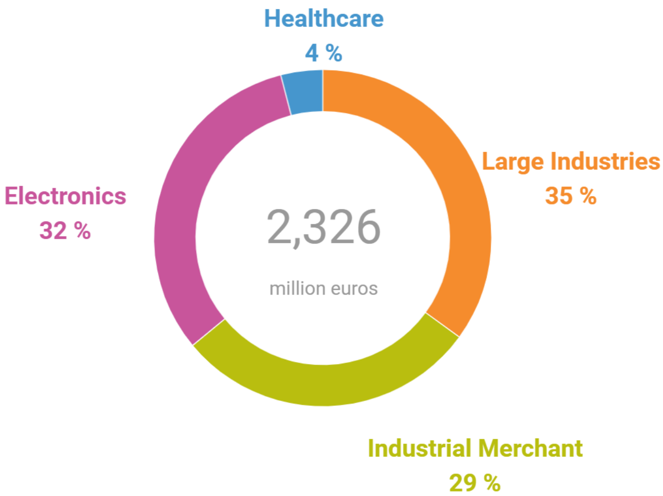
- Air Liquide, Borealis, Esso, TotalEnergies and Yara have signed a **Memorandum of Understanding (MoU)** to explore the development of a **CO_2 infrastructure including capture and storage**, to help **decarbonize** the industrial basin located in the Normandy region, France. With the objective to **reduce CO_2 emissions by up to 3 million tons per year by 2030**, which is equivalent to the emissions of more than 1 million passenger cars, the first phase will consist in studying the technical and economical feasibility of this project. This partnership, which will seek funding from European, French and Regional schemes, is open to other industrial parties.

- Air Liquide and PAO Severstal, one of the leading steel producers, have signed **a new long-term contract** for the supply of oxygen to the Severstal CherMK site in Russia. Air Liquide will invest around **60 million euros** in the construction of a state-of-the-art Air Separation Unit (ASU) on the site, one of the largest oxygen sites in continental Europe, where it already owns three other ASUs. Thanks to enhanced energy efficiency, this new unit will improve the overall environmental footprint of the site.

Asia-Pacific

Sales in Asia Pacific increased by a very strong **+8.7%** and totaled **2,326 million euros**. All business lines and regions posted growth in the 1st half of 2021, thanks to a favorable basis of comparison with the 1st half of 2020 which was down -2.1% due to the public health crisis. China accounted for a large portion of this growth, with significant volumes across all business lines. Volumes, particularly in China, South Korea and Singapore, were strong in Large Industries, which enjoyed an increase in revenue of +9.8%. The strong growth in Industrial Merchant sales (+12.3%) was mainly driven by high activity in China which posted double-digit volume growth compared with the 1st half of 2019. In Electronics (+4.5%), Carrier gases contributed significantly to growth and benefited from the ramp-up of several units.

Asia-Pacific Gas & Services H1 2021 Revenue



- **Large Industries** sales were up **+9.8%**, compared with sales that were down -2.0% during the 1st half of 2020. Growth was mainly driven by strong air gases demand for Steel and Chemicals in China. The oxygen sales for Steel in Japan were high, in particular during the 2nd quarter. Hydrogen volumes also increased, particularly for Refining in Singapore and for Chemicals in South Korea with the ramp-up of a new unit.
- **Industrial Merchant** revenue increased by **+12.3%** with sales up across all regions. It had decreased by -5.8% during the 1st half of 2020. Volumes were up compared with the 1st half of 2019, driven by China where all products enjoyed strong demand, particularly with regard to domestic needs in the Metal Fabrication, Electronic Components and Automobile sectors. Excluding China, volumes continued to improve in all countries, in particular for liquid gas in developing economies which exceeded the level seen in the 2nd quarter of 2019. Pricing impacts were stable (-0.3%).
- **Electronics** sales were up **+4.5%** and +5.0% excluding Equipment & Installation sales. Carrier gases enjoyed strong growth of +8%, thanks notably to the ramp-up of several production plants for customers in China and Japan. Advanced materials sales were up over the half year and benefited from exceptional volumes in June which offset the price discounts granted to customers signing medium-term contracts, in anticipation of an increase in volumes.

Asia-Pacific

- **Air Liquide will invest around 70 million euros** to build a state-of-the-art gases plant in Wuhan to supply a major memory chipmaker. Air Liquide has been producing ultra-pure industrial gases for this leading Chinese high-tech company for more than 12 years. The unit is planned to be operational in **2022**.

- Air Liquide and Jiangsu Shagang Group, the largest private steel enterprise in China and one of top 5 globally, have signed **a new long-term agreement for the supply of industrial gases** in Zhangjiagang City, Jiangsu Province, China. Air Liquide will invest **around 100 million euros** towards the construction of a world-scale **Air Separation Unit (ASU)** on the site, where it already operates two other ASUs. Designed to use low carbon energy, this state of the art plant will allow to significantly **reduce CO_2 emissions** over time. This new ASU will also be a new source of **krypton** and **xenon** to address the growing demand of the Electronics industry, as well as other air gases for our industrial merchant activity in China.

Middle East and Africa

Revenue in the Middle East and Africa region stood at **308 million euros**, up sharply by **+18.9%** over the 1st half. Large Industries sales enjoyed an increase in demand from customers linked to the pipeline network in Saudi Arabia and a favorable basis of comparison due to a customer maintenance turnaround in the 1st quarter of 2020. Industrial Merchant revenue continued to grow. The Healthcare business is committed to the fight against Covid-19, and sales growth was strong across the region.

Engineering & Construction

Engineering & Construction consolidated revenue was up **+65.9%** and stood at **169 million euros** in the 1st half of 2021. Order intake totaled **542 million euros**, up sharply thanks to positive momentum in Asia and the energy transition. This notably included a major liquid hydrogen production project as well as the sale of a license and engineering services for a carbon capture unit using CryoCap™ technology in Europe.

Global Markets & Technologies

Global Markets & Technologies sales totaled **327 million euros**, with strong growth of **+34.9%** compared with the weak level of activity during the 1st half of 2020. The biogas activity was strong, driven in Europe by the ramp-up of production plants and by sales of biomethane for transport, and in the United States by the increase in sales prices. Equipment sales were also up, in particular for aerospace in Europe, for biogas production in the United States and for hydrogen mobility.

Order intake for Group projects and third-party customers totaled **346 million euros** and notably included major contracts for helium cryogenic refrigerators, LNG reliquefaction units on tankers and gas purification membranes.

Global Markets & Technologies

- **Air Liquide**, **Airbus** and **Groupe ADP** have signed a **Memorandum of Understanding (MoU)** to prepare for the arrival of **hydrogen in airports by 2035** as part of the development of hydrogen-powered commercial aircraft. The partners will leverage their respective expertise to support the decarbonization of the aviation industry and to define the concrete needs and opportunities that hydrogen can bring to the aeronautics sector. This partnership reflects the three partners' shared ambition to contribute to the emergence of an innovative and strategic French sector dedicated to achieving climate-neutral aviation worldwide.

OPERATING INCOME RECURRING

Operating income recurring before depreciation and amortization totaled **2,997 million euros**, an increase of +3.4% and **+8.8% excluding the currency impact** compared with the 1st half of 2020. **Excluding the currency impact**, **personnel costs** were up **+2.0%** and **purchases** increased by **+17.5%**. The strong growth in purchases mainly reflected the recovery in activity, with energy purchases combining an increase in volumes with a marked price increase, which is contractually passed through to customers. With activity picking up again, **other expenses** increased by **+9.7%** excluding the currency impact, and notably included higher transportation and maintenance expenses, in particular relating to the management of an unusual winter storm along the Gulf Coast in February 2021. Costs relating to the Covid-19 pandemic are included in operating expenses. **Depreciation and amortization** reached **1,049 million euros**, representing a moderate increase of **+0.9% excluding the currency impact**, with the impact of the start-up of new units partially offset by the sale of Schülke in 2020.

Ongoing efficiency and margin improvement programs and the exceptional cost containment plan launched by the Group in response to the Covid-19 crisis, contributed significantly to improving performance. Group **Operating Income Recurring (OIR)** reached **1,948 million euros** in the 1st half of 2021, an increase of +7.4% and of **+17.1%** on a comparable basis, which is much higher than the comparable sales growth of +9.2% over the half-year. **The operating margin** (OIR to revenue) stood at **18.0%**, representing a marked improvement of **+100 basis points excluding the energy impact** compared with the 1st half of 2020. On a reported basis, the improvement of operating margin was limited due to a significant increase in energy prices during the 1st half of 2021, which was contractually passed through to customers and therefore had a dilutive impact on the published margin.

Efficiencies[4] totaled **206 million euros**, up +3.5% and in line with the annual target of more than 400 million euros. These efficiencies represent cost savings of 2.8%, an increase compared with 2.5% in the 1st half of 2020. **Industrial efficiencies** accounted for more than 40% of total efficiencies and included improvement of **energy efficiency** in Large Industries and of the **supply chain** in Industrial Merchant and Electronics. The implementation of **digital tools** aimed at the Group's **transformation** continued, with the acceleration of the roll-out of remote operation centers for Large Industries production units (Smart Innovative Operations, SIO) and new optimization tools for delivery routes in Industrial Merchant (Integrated Bulk Operations, IBO). **Shared services centers** are developing and efficiencies related to **purchases** continued, in particular at Airgas, which represents a major contribution to overall efficiencies generated.

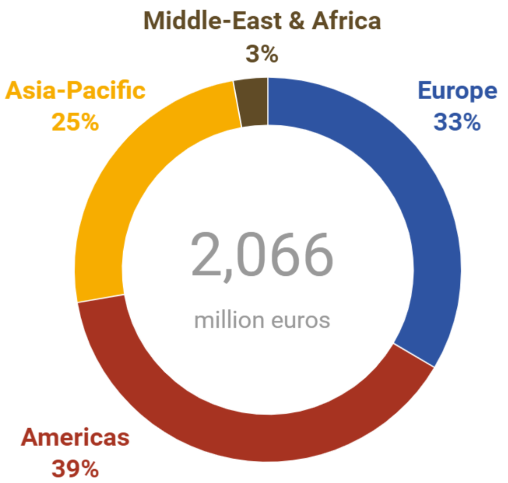
Moreover, the exceptional cost containment plan launched in response to the health crisis was extended and adapted to the gradual recovery in activity, due to the continuation of local lockdown measures during the 1st half of the year. The impact of these exceptional measures is expected to fall sharply during the 2nd half, in line with the expected recovery in activity.

[4] *See definition in the Appendix.*

Gas & Services

Gas & Services operating income recurring totaled **2,066 million euros**, up **+6.1%** as published compared with the 1st half of 2020, and up **+14.9%** on a comparable basis. The **operating margin** as published stood at **20.0%**, a significant improvement of **+120 basis points excluding the energy impact** compared with the 1st half of 2020. On a reported basis, operating margin improvement was limited due to a significant increase in energy prices during the 1st half of 2021, which was contractually passed through to customers and therefore had a dilutive impact on the published margin.

Gas & Services H1 2021 Operating Income Recurring



Industrial Merchant activity prices were up +1.9% in the 1st half, notably thanks to pricing campaigns launched at the beginning of the year, in particular in the United States and Europe. Prices were almost flat in Healthcare and down slightly in Electronics due to Advanced Materials price discounts granted to customers signing medium-term contracts, in anticipation of a strong increase in volumes.

Gas & Services Operating margin [a]	H1 2020	H1 2021	H1 2021, excluding energy impact
Americas	18.7%	19.7%	20.6%
Europe	19.8%	18.9%	20.1%
Asia-Pacific	21.7%	22.1%	22.2%
Middle East & Africa	14.3%	19.3%	19.6%
TOTAL	**19.6%**	**20.0%**	**20.8%**

(a) Operating income recurring / revenue as published

Operating income recurring in the **Americas** reached **802 million euros** over the 1st half of 2021, an increase of **+7.8%**. Excluding the energy impact, the operating margin stood at **20.6%**, representing a very strong **+190 basis points** increase compared with the 1st half of 2020. The efficiency plan made a significant impact, coupled with the continuation during the 1st quarter of the exceptional cost containment plan launched in response to the health crisis, in particular in Large Industries and the Industrial Merchant business. Airgas' contribution was significant, driven by a pick-up in volumes, favorable mix effects and dynamic pricing management.

Operating income recurring in **Europe** reached **692 million euros**, an increase of **+1.7%** compared with the 1st half of 2020. Excluding the energy impact, the operating margin was **20.1%**, an increase of **+30 basis points**. This performance was driven by the efficiency program and a recovery in volumes, mainly in Large Industries and the Industrial Merchant business.

Operating income recurring in **Asia Pacific** stood at **513 million euros**, an increase of **+6.0%**. The operating margin excluding the energy impact reached **22.2%**, an increase of **+50 basis points**. Electronics generated major efficiencies and benefited from the results of the Group's active business portfolio management in Japan. Industrial Merchant growth in China also contributed to the improvement in performance, notably via efficiency measures and the acceleration in sales of cylinder gas and small on-site gas production units.

Operating income recurring for the **Middle East and Africa** region amounted to **60 million euros**, representing a marked increase of **+55.1%** compared with the 1st half of 2020. Excluding the energy impact, the operating margin was **19.6%**, up **+530 basis points** due to the strong increase in volumes across all activities, in particular in Large Industries in Saudi Arabia, where there was a customer maintenance turnaround at a major hydrogen production unit during the 1st quarter of 2020.

Engineering & Construction

Engineering & Construction operating income recurring stood at **8 million euros** for the 1st half of 2021, representing 4.5% of sales.

Global Markets & Technologies

Operating income recurring for **Global Markets & Technology** stood at **40 million euros** in the 1st half of 2021, with an operating margin at **12.2%**, an increase of **+240 basis points**.

Research & Development and Corporate costs

Research & Development expenses and Corporate costs totaled 166 million euros.

NET PROFIT

Other operating income and expenses showed a net balance of -40 million euros and mainly consisted of reorganization costs. This compares to -92 million euros in the 1st half of 2020, which included exceptional expenses relating to the management of the Covid-19 pandemic.

The **financial result** was **-188 million euros** compared with -216 million euros in the 1st half of 2020, a decrease that is primarily due to **net finance costs** of **-141 million euros**, down **-17.5%**. The early redemption in December 2020 of bonds ("senior notes") issued by Airgas before its acquisition by Air Liquide and the decrease in average outstanding bond issues compared with the 1st half of 2020 contributed to reducing net finance costs. The **average cost of net debt** was **2.9%**, flat compared with the 1st half of 2020.

Income tax expense was **425 million euros**. The effective tax rate was **24.7%**, down slightly from 25.3% in the 1st half of 2020.

The **share of profit of associates** amounted to **-1.6 million euros**. The **share of minority interests in net profit** totaled 54 million euros, up +16.4% due to business picking up at subsidiaries with minority shareholders.

The **net profit (Group share)** amounted to **1,239 million euros** in the 1st half of 2021, an increase of **+14.9%** and **+23.1% excluding the currency impact**.

The **recurring net profit (Group share)**(5) was identical to the net profit (Group share) at **1,239 million euros**. It increased by +11.3% and **+19.3% excluding the currency impact**, which is significantly higher than the comparable sales growth of +9.2% over the half year.

Net earnings per share also rose sharply by **+14.8%** compared with the 1st half of 2020, in line with the increase in net profit (Group share). It stood at **2.63 euros per share** compared with 2.29 euros per share in the 1st half of 2020. The average number of outstanding shares used for the calculation of net earnings per share as of June 30, 2021 was **471,986,824**.

Change in the number of shares

	H1 2020	H1 2021
Average number of outstanding shares	471,411,633	471,986,824

[5] *See definition and reconciliation in the appendix*

Change in Net debt

Cash flow from operating activities before changes in net working capital amounted to **2,483 million euros** during the 1st half of 2021, representing an increase of +4.8% and **+10.0% excluding the currency impact**. This corresponds to a high level of **22.9% of sales** compared with 23.1% in the 1st half of 2020, an improvement of **+70 basis points excluding the energy impact**.

Working capital requirement (WCR) was up **267 million euros** compared with December 31, 2020 due to the pick-up in activity during the half-year. The WCR excluding taxes to sales ratio was **3.7%**, compared with 5.0% at June 30, 2020. **Net cash flow from operating activities after changes in working capital requirement** amounted to **2,190 million euros**, an increase of +1.7% and **+6.5% excluding the currency impact** compared with the 1st half of 2020.

Gross capital expenditure totaled **2,008 million euros**. Gross industrial capital expenditure amounted to 1,439 million, an increase of +9.0% compared with the 1st half of 2020 and of +14.1% excluding the currency impact. This represented **13.3% of sales**, reflecting strong project development. Financial investments were particularly high at 569 million euros, including approximately 480 million euros for the acquisition of 16 Sasol air separation units in South Africa. **Proceeds from the sale of fixed assets and activities** stood at **129 million euros** and included in particular the disposal of the Group's activities in Greece, highlighting the Group's active business portfolio management. **Net capital expenditure**[6] totaled **1,913 million euros**.

Net debt at June 30, 2021 reached **12,013 million euros**, a decrease of 1,163 million euros compared with June 30, 2020 and an increase of 1,404 million euros compared with December 31, 2020 following the payment of more than 1.3 billion euros in dividends in May and the major acquisition of Sasol air gases production units in South Africa in June. The **net debt-to-equity ratio**, adjusted for the seasonal effect of the dividend payment, stood at **56.1%**, **down sharply** compared with end of June 2020 (64.5%).

The **return on capital employed after tax (ROCE)** was **9.5%** for the 1st half of 2021. **Recurring ROCE**[7] stood at **9.0%**, an increase of **+60 basis points** compared with the 1st half of 2020.

Financing

- On May 19, 2021, Air Liquide successfully launched its first **green bond issue**, by raising **500 million euros** (10 years maturity) which will be dedicated to financing and refinancing the development of several **sustainable projects**, in particular in hydrogen, biogas and oxygen. This operation is in line with the "Sustainable Financing Framework" published on May 17 and validated by a Second-Party opinion. This new bond issue will notably contribute to the financing of the ambitious sustainable projects the Group announced on March 23, 2021. At the same time, Air Liquide undertakes to publish, annually until the funds raised are fully allocated, a "Sustainable Financing Reporting", which will include an allocation report and an impact report, both audited and made public on the Air Liquide website.

[6] *Including transactions with minority shareholders.*
[7] *See definition and reconciliation in the Appendix*

INVESTMENT CYCLE

INVESTMENT DECISIONS AND INVESTMENT BACKLOG

In the 1st half of 2021, **industrial and financial investment decisions** totaled **1,908 million euros**, including 479 million euros for the acquisition of Sasol's 16 air separation units in South Africa, which was finalized at the end of June. This was up sharply from 1,331 million euros in the 1st half of 2020.

Industrial investment decisions were high in the 2nd quarter of 2021, and totaled **1,349 million euros** for the 1st half of 2021. Investment was dynamic in **Large Industries**, in particular with long-term contracts having been signed in the 2nd quarter for new air separation units in China and Russia. Decisions concerning **Industrial Merchant** activity included the launching of Qlixbi for welding in new Northern European countries and investments contributing to improve margins. The **Hydrogen Energy** business remained very active, with new investments for the supply chain in the United States and for the expansion of a filling center in Europe. In the 1st half of 2021, **11%** of industrial decisions contributed to efficiency programs.

Financial investment decisions totaled **559 million euros** in the 1st half of 2021, including 479 million euros for the acquisition of the Sasol units in South Africa. This also includes several small acquisitions, notably in the Healthcare business in Europe and in the Industrial Merchant business in North America, Europe and Asia.

The **investment backlog** remained high at **3.1 billion euros,** evenly distributed across various business sectors and geographies (Americas 41%, Asia-Pacific 34%, Europe 25%). This consists of approximately 70 projects with an average value of 45 million euros. The largest proportion (58%) of these projects relates to **Large Industries,** bolstered by the energy transition. The proportion of **Electronics** projects remains high (23%). The Chemicals (29%) and Steel (21%) sectors together were half of the backlog. Investments in the Oil & Gas sector were only 8% of total investments. The investment backlog is expected to lead to a future contribution to annual revenue of approximately **1.0 billion euros per year** after the full ramp-up of the units, which is an identical amount to that at the end of 2020.

Investment

- Air Liquide has **finalized the acquisition** of **Sasol's 16 Air Separation Units (ASU)** located in Secunda, South Africa. Air Liquide will operate this site - the biggest oxygen production site in the world - with a plan to **reduce its CO_2 emissions by 30% to 40%** within the next ten years. The initial investment is approximately 8 billion South African Rand **(circa 480 million euros)**.

- Air Liquide partnered with Rothschild & Co and the Solar Impulse Foundation ("SIF") to launch a **200 million euros investment fund**. This vehicle's strategy will be to scale up companies that develop **environment-friendly solutions**.

START-UPS

Nine major units were started up during the 1st half of 2021. These include carrier gases production units for **Electronics** in Asia and the United States, air separation units for the **Industrial Merchant** business in the United States and production units for **Large Industries** in Canada, Belgium and Kazakhstan.

The **additional contribution to revenue** of unit start-ups and ramp-ups is high, totaling **130 million euros** over the 1st half of 2021. For the year 2021, the **additional contribution to revenue** is estimated at **320 million euros**, including **70 million** from the acquisition of the 16 Sasol oxygen units in South Africa. These 16 units are expected to generate between 400 and 450 million euros per year in revenue in a second phase that fully integrates energy management, with no significant impact on operating income.

INVESTMENT OPPORTUNITIES

The **12-month portfolio of investment opportunities** stood at **3.0 billion euros** at the end of June 2021.

The **energy transition** represents **45%** of the portfolio of opportunities and includes several projects for low-carbon hydrogen production by electrolysis, hydrogen liquefaction and carbon capture and storage ("CCS") in **Large Industries**. The share of **Electronics** projects remains high, up slightly from the already high level in the 1st quarter of 2021.

Europe and Asia account for nearly 80% of opportunities: Europe remained the leading region in the portfolio owing to the numerous projects linked to the **energy transition**, followed by **Asia**, where most **Electronics** projects are being carried out. The Americas and the Middle East & Africa regions then follow.

RISK FACTORS

There was no change in risk factors during the first half. Risk factors are described in the 2020 Reference Document on pages 74 to 90.

OUTLOOK

This **first half excellent performance** reflects the **momentum of our markets and the acceleration in sales in the 2nd quarter. These exceeded the level seen in 2nd quarter of 2019[(1)], across all regions and for all activities**. Sales for the half year were close to **11 billion euros**, marking strong growth of **+9.2%** on a comparable basis, versus the 1st half of 2020.

In **Gas & Services**, the **rebound in industrial activities** was particularly strong in the 2nd quarter, both in Large Industries and Industrial Merchant. Electronics also recorded strong growth at the end of the half year. The **Healthcare** business line remained at a high level, with **teams strongly committed** to the fight against the pandemic. Geographically speaking, **markets are growing in all regions**, although some countries remain vulnerable to the pandemic situation.

Engineering & Construction and **Global Markets & Technologies** activities posted strong growth.

The Group's **operating margin** rose again sharply, by **+100 basis points**, excluding the energy impact. This **improvement** reflects the contribution of **the structural margin improvement program**, through ongoing recurring efficiency programs in the amount of **206 million euros**, in line with the annual objective set at more than 400 million euros. It also illustrates the strong **pricing policy**, in particular in Industrial Merchant, **active business portfolio management** and is temporarily supported by the effects of the **exceptional cost containment plan**, which will diminish with the recovery in activity.

Net profit rose significantly by +14.9% to more than **1.2 billion euros**. The **cash flow to sales ratio** also increased and reached **23%**. The **debt-to-equity ratio** was down sharply versus the end of June 2020.

With almost half of the projects linked to the energy transition, **12-month investment opportunities are numerous and total 3 billion euros**. **Investment decisions for the half year were high at 1.9 billion euros**, including **the acquisition of the Sasol oxygen production plants** in Secunda, South Africa. Solid, diversified and largely focused on the energy transition, the **project backlog** totaling **3.1 billion euros** is particularly promising for future growth.

With a **growth model combining financial performance with societal performance**, Air Liquide is a major player in a sustainable future and is particularly committed to developing **a low-carbon society** through the reduction of CO_2 emissions and the implementation of hydrogen solutions.

In 2021, in a context of recovery in the second half of the year, Air Liquide is confident in its ability to further increase its operating margin and to deliver recurring net profit growth[(2)], at constant exchange rates.

(1) Due to the exceptional impact of the pandemic in the 1st half of 2020, a comparison with 2019 1st half sales has been introduced for context in reviewing 1st half 2021 performance. The comparisons between 2021 and 2019 (over the half year or over the quarter) are calculated by adding 2020 and 2021 comparable effects. They are given as a reference point and do not constitute an alternative performance measure.

(2) Excluding significant and exceptional items with no impact on recurring operating income. Excluding the impact of a possible US tax reform in 2021.

APPENDICES

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
- Recurring net profit Group share
- Recurring net profit excluding currency effect
- Net Profit Excluding IFRS16
- Net Profit Recurring Excluding IFRS16
- 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.

Calculation of performance indicators (Semester)

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.

(in millions of euros)	H1 2021	H1 2021/2020 Published Growth	Currency impact	Natural gas impact	Electricity impact	Significant scope impact	H1 2021/2020 Comparable Growth
Revenue							
Group	10,846	+5.6%	(498)	304	114	(271)	+9.2%
Impacts in %			*-4.8%*	*+2.9%*	*+1.1%*	*-2.8%*	
Gas & Services	10,350	+4.3%	(486)	304	114	(271)	+8.0%
Impacts in %			*-4.9%*	*+3.0%*	*+1.2%*	*-3.0%*	
Operating Income Recurring							
Group	1,948	+7.4%	(109)	-	-	(56)	+17.1%
Impacts in %			*-6.0%*	-	-	*-3.7%*	
Gas & Services	2,066	+6.1 %	(106)	-	-	(56)	+14.9%
Impacts in %			*-5.5%*	-	-	*-3.3%*	

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 energy corresponds to the operating income recurring, not affected by the indexation effect of electricity and natural gas, divided by revenue excluding the energy impact.

		H1 2021	Natural gas impact	Electricity impact	H1 2021, excluding energy impact
Revenue	Group	10,846	292	110	10,444
	Gas & Services	10,350	292	110	9,949
Operating Income Recurring	Group	1,948	-	-	1,948
	Gas & Services	2,066	-	-	2,066
Operating Margin	**Group**	**18.0%**			**18.6%**
	Gas & Services	**20.0%**			**20.8%**

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.

	H1 2020	H1 2021	H1 2021/2020 Change
(A) Net Profit (Group Share) - As Published	**1,078.4**	**1,239.3**	**+14.9%**
(B) Exceptional and significant transactions after-tax with no impact on OIR			
- Exceptional expenses linked to the management of the Covid-19 pandemic	(34.7)		
(A) - (B) = Net Profit Recurring (Group Share)	**1,113.1**	**1,239.3**	**+11.3%**
(C) Currency impact		(88.7)	
(A) - (B) - (C) = Net Profit Recurring (Group Share) excluding currency impact		**1,328.0**	**+19.3%**

NET PROFIT EXCLUDING IFRS16 AND NET PROFIT RECURRING EXCLUDING IFRS16

Net Profit excluding IFRS16:

	H1 2020	FY 2020	H1 2021
(A) Net Profit as Published	**1,124.6**	**2,528.0**	**1,293.1**
(B) = IFRS16 Impact[1]	(6.8)	(13.2)	(6.0)
(A) - (B) = Net Profit excluding IFRS16	**1,131.4**	**2,541.2**	**1,299.1**

[1] *The IFRS16 impact includes the reintegration of leasing expenses less depreciation and other financial expenses booked in relation to IFRS16*

Net Profit Recurring excluding IFRS16:

	H1 2020	FY 2020	H1 2021
(A) Net Profit as Published	**1,124.6**	**2,528.0**	**1,293.1**
(B) Exceptional and significant transactions after-tax with no impact on OIR	(34.7)	94.0	0.0
(A) - (B) = Net Profit recurring	**1,159.3**	**2,434.0**	**1,293.1**
(C) IFRS16 Impact[1]	(6.8)	(13.2)	(6.0)
(A) - (B) - (C) = Net Profit recurring excluding IFRS16	**1,166.1**	**2,447.2**	**1,299.1**

[1] *The IFRS16 impact includes the reintegration of leasing expenses less depreciation and other financial expenses booked in relation to IFRS16*

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 IFRS16 - net finance costs after taxes for the period in question.

For the denominator: the average of (total shareholders' equity excluding IFRS16 + net debt) at the end of the past three half-years.

(in millions of euros)		H1 2020 (a)	FY 2020 (b)	H1 2021 (c)	ROCE Calculation
Numerator (b)-(a)+(c)	Net Profit Excluding IFRS16	1,131.4	2,541.2	1,299.1	**2,708.9**
	Net Finance costs	(170.5)	(352.8)	(140.7)	(323.0)
	Effective Tax Rate [1]	25.2%	26.5%	24.5%	
	Net Finance costs after tax	(127.5)	(259.3)	(106.2)	**(238.0)**
	Net Profit - Net financial costs after tax	1,258.9	2,800.5	1,405.3	**2,946.9**
Denominator ((a)+(b)+(c))/3	Total Equity Excluding IFRS16	18,777.5	19,032.2	19,607.6	**19,139.1**
	Net Debt	13,175.7	10,609.3	12,013.2	**11,932.7**
	Average of (total equity + net debt)	31,953.2	29,641.5	31,620.8	**31,071.8**
ROCE					**9.5%**

[1] *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 IFR16 for the numerator.

(in millions of euros)		H1 2020 (a)	FY 2020 (b)	H1 2021 (c)	Recurring ROCE Calculation
Numerator (b)-(a)+(c)	Net Profit Recurring Excluding IFRS16	1,166.1	2,447.2	1,299.1	**2,580.2**
	Net Finance costs	(170.5)	(352.8)	(140.7)	(323.0)
	Effective Tax Rate [1]	25.2%	26.5%	24.5%	
	Net Finance costs after tax	(127.5)	(259.3)	(106.2)	(238.0)
	Neutralizing Airgas "senior notes" from Net Finance Costs after tax [2]		(30.3)		
	Net Finance costs after tax excluding Airgas senior notes [2]	**(127.5)**	**(229.0)**	**(106.2)**	**(207.7)**
	Recurring Net Profit Excluding IFRS16 - Net financial costs after tax excluding Airgas senior notes [2]	1,293.6	2,676.2	1,405.3	**2,787.9**
Denominator ((a)+(b)+(c))/3	Total Equity Excluding IFRS16	18,777.5	19,032.2	19,607.6	**19,139.1**
	Net Debt	13,175.7	10,609.3	12,013.2	**11,932.7**
	Average of (total equity + net debt)	31,953.2	29,641.5	31,620.8	**31,071.8**
Recurring ROCE					**9.0%**

[1] *excluding non-recurring tax impact*

[2] *The impact of the reimbursement of Airgas senior notes is removed from Net Finance costs after tax as it is already excluded in the calculation of Net Profit Recurring in numerator*

Calculation of performance indicators (Quarter)

	Q2 2021	Q2 2021/2020 Published Growth	Currency impact	Natural gas impact	Electricity impact	Significant scope impact	Q2 2021/2020 Comparable Growth
Revenue							
Group	5,512	+12.4%	(226)	171	68	(129)	+15.2%
Impacts in %			*-4.6%*	*+3.5%*	*+1.3%*	*-3.0%*	
Gas & Services	5,247	+10.9%	(220)	171	68	(129)	+13.7%
Impacts in %			*-4.7%*	*+3.6%*	*+1.5%*	*-3.2%*	

2nd quarter 2021 revenue

BY GEOGRAPHY

Revenue *(in millions of euros)*	Q2 2020	Q2 2021	Published change	Comparable change
Americas	1,853	2,056	+10.9%	+17.4%
Europe	1,649	1,860	+12.8%	+10.6%
Asia-Pacific	1,097	1,176	+7.1%	+10.8%
Middle East & Africa	130	155	+19.9%	+20.4%
Gas & Services Revenue	**4,729**	**5,247**	**+10.9%**	**+13.7%**
Engineering & Construction	52	93	+79.5%	+83.6%
Global Markets & Technologies	122	172	+41.7%	+44.4%
GROUP REVENUE	**4,903**	**5,512**	**+12.4%**	**+15.2%**

BY WORLD BUSINESS LINE

Revenue *(in millions of euros)*	Q2 2020	Q2 2021	Published change	Comparable change
Large industries	1,136	1,471	+29.5%	+12.3%
Industrial Merchant	2,107	2,342	+11.1%	+17.9%
Healthcare	977	921	-5.7%	+8.7%
Electronics	509	513	+0.8%	+7.7%
GAS & SERVICES REVENUE	**4,729**	**5,247**	+10.9%	+13.7%

Geographic and segment information

(in millions of euros and %)	H1 2020 Revenue	H1 2020 Operating income recurring	H1 2020 OIR margin	H1 2021 Revenue	H1 2021 Operating income recurring	H1 2021 OIR margin
Americas	3,975	744	18.7%	4,059	802	19.7%
Europe	3,440	680	19.8%	3,657	692	18.9%
Asia-Pacific	2,236	484	21.7%	2,326	513	22.1%
Middle East and Africa	269	39	14.3%	308	60	19.3%
Gas & Services	**9,920**	**1,947**	**19.6%**	**10,350**	**2,066**	**20.0%**
Engineering and Construction	104	(21)	-20.5%	169	8	4.5%
Global Markets & Technologies	249	24	9.8%	327	40	12.2%
Reconciliation	-	(137)	-	-	(166)	-
TOTAL GROUP	**10,273**	**1,813**	**17.6%**	**10,846**	**1,948**	**18.0%**

Consolidated income statement

(in millions of euros)	**1st half 2020**	**1st half 2021**
Revenue	**10,272.8**	**10,845.7**
Other income	53.3	70.0
Purchases	(3,631.3)	(4,078.6)
Personnel expenses	(2,183.1)	(2,129.2)
Other expenses	(1,614.3)	(1,711.3)
Operating income recurring before depreciation and amortization	**2,897.4**	**2,996.6**
Depreciation and amortization expenses	(1,084.3)	(1,048.9)
Operating income recurring	**1,813.1**	**1,947.7**
Other non-recurring operating income	9.3	12.7
Other non-recurring operating expenses	(101.5)	(52.9)
Operating income	**1,720.9**	**1,907.5**
Net finance costs	(170.5)	(140.7)
Other financial income	9.6	4.1
Other financial expenses	(55.1)	(50.9)
Income taxes	(380.8)	(425.3)
Share of profit of associates	0.5	(1.6)
PROFIT FOR THE PERIOD	**1,124.6**	**1,293.1**
- Minority interests	46.2	53.8
- Net profit (Group share)	**1,078.4**	**1,239.3**
Basic earnings per share (in euros)	**2.29**	**2.63**

Consolidated balance sheet

ASSETS (in millions of euros)	December 31, 2020	June 30, 2021
Goodwill	13,087.4	13,435.4
Other intangible assets	1,397.8	1,413.9
Property, plant and equipment	20,002.9	21,360.0
Non-current assets	**34,488.1**	**36,209.3**
Non-current financial assets	602.5	621.3
Investments in associates	160.9	157.3
Deferred tax assets	268.4	274.4
Fair value of non-current derivatives (assets)	90.9	52.2
Other non-current assets	**1,122.7**	**1,105.2**
TOTAL NON-CURRENT ASSETS	**35,610.8**	**37,314.5**
Inventories and work-in-progress	1,405.9	1,481.6
Trade receivables	2,205.8	2,500.4
Other current assets	737.7	797.2
Current tax assets	90.4	96.9
Fair value of current derivatives (assets)	44.1	38.4
Cash and cash equivalents	1,791.4	1,387.3
TOTAL CURRENT ASSETS	**6,275.3**	**6,301.8**
ASSETS HELD FOR SALE	**91.0**	82.7
TOTAL ASSETS	41,977.1	43,699.0

EQUITY AND LIABILITIES (in millions of euros)	December 31, 2020	June 30, 2021
Share capital	2,605.1	2,606.5
Additional paid-in capital	2,608.1	2,624.8
Retained earnings	11,033.8	12,783.1
Treasury shares	(139.8)	(179.9)
Net profit (Group share)	2,435.1	1,239.3
Shareholders' equity	**18,542.3**	**19,073.8**
Minority interests	**462.3**	**500.2**
TOTAL EQUITY	**19,004.6**	**19,574.0**
Provisions, pensions and other employee benefits	2,418.3	2,324.2
Deferred tax liabilities	1,871.5	1,936.3
Non-current borrowings	10,220.2	10,068.9
Non-current lease liabilities	969.4	993.8
Other non-current liabilities	206.5	247.0
Fair value of non-current derivatives (liabilities)	11.5	19.2
TOTAL NON-CURRENT LIABILITIES	**15,697.4**	**15,589.4**
Provisions, pensions and other employee benefits	316.1	304.0
Trade payables	2,437.9	2,608.4
Other current liabilities	1,809.2	1,770.6
Current tax payables	215.2	223.7
Current borrowings	2,180.5	3,331.6
Current lease liabilities	218.2	219.7
Fair value of current derivatives (liabilities)	59.0	42.1
TOTAL CURRENT LIABILITIES	**7,236.1**	**8,500.1**
LIABILITIES HELD FOR SALE	**39.0**	**35.5**
TOTAL EQUITY AND LIABILITIES	41,977.1	43,699.0

Consolidated cash flow statement

(in millions of euros)	**1st half 2020**	**1st half 2021**
Operating activities		
Net profit (Group share)	**1,078.4**	**1,239.3**
Minority interests	**46.2**	**53.8**
Adjustments:		
• Depreciation and amortization	1,084.3	1,048.9
• Changes in deferred taxes	1.8	(14.6)
• Changes in provisions	(12.9)	(30.5)
• Share of profit of associates	(0.4)	1.6
• Profit/loss on disposal of assets	(7.2)	22.1
• Net finance costs	119.7	101.3
• Other non cash items	60.8	61.5
Cash flow from operating activities before changes in net working capital	**2,370.7**	**2,483.4**
Changes in working capital	(157.0)	(266.8)
Other cash items	(60.9)	(26.2)
Net cash flows from operating activities	**2,152.8**	**2,190.4**
Investing activities		
Purchase of property, plant and equipment and intangible assets	(1,319.9)	(1,439.0)
Acquisition of consolidated companies and financial assets	(63.9)	(569.2)
Proceeds from sale of property, plant and equipment and intangible assets [a]	68.7	44.6
Proceeds from the sale of subsidiaries, net of net debt sold and from the sale of financial assets [a]	13.8	84.2
Dividends received from equity affiliates	2.0	3.3
Net cash flows used in investing activities	**(1,299.3)**	**(1,876.1)**
Financing activities		
Dividends paid		
• L'Air Liquide S.A.	(1,306.7)	(1,332.7)
• Minority interests	(42.8)	(33.4)
Proceeds from issues of share capital	26.7	22.6
Purchase of treasury shares	(50.4)	(40.2)
Net financial interests paid	(166.9)	(146.8)
Increase (decrease) in borrowings	1,319.6	874.9
Lease liabilities repayments	(121.4)	(118.4)
Net interests paid on lease liabilities	(20.3)	(16.5)
Transactions with minority shareholders	(9.7)	(36.8)
Net cash flows from (used in) financing activities	**(371.9)**	**(827.3)**
Effect of exchange rate changes and change in scope of consolidation	11.7	60.7
Net increase (decrease) in net cash and cash equivalents	**493.3**	**(452.3)**
NET CASH AND CASH EQUIVALENTS AT THE BEGINNING OF THE PERIOD	**896.5**	**1,718.6**
NET CASH AND CASH EQUIVALENTS AT THE END OF THE PERIOD	**1,389.8**	**1,266.3**

(a) Since December 31, 2020, proceeds from the sale of subsidiaries are reported in the line "Proceeds from the sale of subsidiaries, net of net debt sold and from the sale of financial assets" whereas they used to be included in "Proceeds from sale of property, plant and equipment and intangible assets" on June 30, 2020. If this presentation had been in use, these two lines would have shown 45.6 million euros and 36.9 million euros respectively.

The analysis of net cash and cash equivalents at the end of the period is as follows:

(in millions of euros)	June 30, 2020	December 31, 2020	June 30, 2021
Cash and cash equivalents	1,474.2	1,791.4	1,387.3
Bank overdrafts (included in current borrowings)	(84.4)	(72.8)	(121.0)
NET CASH AND CASH EQUIVALENTS	**1,389.8**	**1,718.6**	**1,266.3**

Net debt calculation

(in millions of euros)	June 30, 2020	December 31, 2020	June 30, 2021
Non-current borrowings	(12,487.9)	(10,220.2)	(10,068.9)
Current borrowings	(2,162.0)	(2,180.5)	(3,331.6)
TOTAL GROSS DEBT	**(14,649.9)**	**(12,400.7)**	**(13,400.5)**
Cash and cash equivalents	1,474.2	1,791.4	1,387.3
TOTAL NET DEBT AT THE END OF THE PERIOD	(13,175.7)	(10,609.3)	(12,013.2)

Statement of changes in net debt

(in millions of euros)	1st half 2020	FY 2020	1st half 2021
Net debt at the beginning of the period	**(12,373.3)**	**(12,373.3)**	**(10,609.3)**
Net cash flows from operating activities	2,152.8	5,205.7	2,190.4
Net cash flows used in investing activities	(1,299.3)	(1,954.6)	(1,876.1)
Net cash flows used in financing activities excluding changes in borrowings	(1,524.6)	(1,690.5)	(1,555.4)
Total net cash flows	**(671.1)**	**1,560.6**	**(1,241.1)**
Effect of exchange rate changes, opening net debt of newly acquired companies and others	(14.5)	443.1	(64.8)
Adjustment of net finance costs	(116.8)	(239.7)	(98.0)
Change in net debt	**(802.4)**	**1,764.0**	**(1,403.9)**
NET DEBT AT THE END OF THE PERIOD	(13,175.7)	(10,609.3)	(12,013.2)

The slideshow that accompanies this release is available as of 9:45 am (Paris time) at www.airliquide.com.
Throughout the year, follow Air Liquide on Twitter: @AirLiquideGroup.

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UPCOMING EVENTS

2021 3rd Quarter Revenue:
October 22, 2021

A world leader in gases, technologies and services for Industry and Health, Air Liquide is present in 78 countries with approximately 64,500 employees and serves more than 3.8 million customers and patients. Oxygen, nitrogen and hydrogen are essential small molecules for life, matter and energy. They embody Air Liquide's scientific territory and have been at the core of the company's activities since its creation in 1902.

Air Liquide's ambition is to be a leader in its industry, deliver long term performance and contribute to sustainability - with a strong commitment to climate change and energy transition at the heart of its strategy. The company's customer-centric transformation strategy aims at profitable, regular and responsible growth over the long term. It relies on operational excellence, selective investments, open innovation and a network organization implemented by the Group worldwide. Through the commitment and inventiveness of its people, Air Liquide leverages energy and environment transition, changes in healthcare and digitization, and delivers greater value to all its stakeholders.

Air Liquide's revenue amounted to more than 20 billion euros in 2020. Air Liquide is listed on the Euronext Paris stock exchange (compartment A) and belongs to the CAC 40, EURO STOXX 50 and FTSE4Good indexes.