



## ROUNDUP ON A 2018 FISCAL YEAR IN LINE WITH FORECASTS, AND A POSITIVE OUTLOOK FOR 2019

- The signing of a strategic partnership with NXP Semiconductors in the field of autonomous vehicles, to develop a joint solution;
- Significant advances with the Baidu and Autoware open platforms for autonomous vehicles;
- The award of NVMe certification, the industry's first in recognition of a comprehensive intelligent-storage solution for data centers.

**Grenoble, France, January 22, 2019** - Kalray (Euronext Growth Paris: ALKAL), the pioneer in processors for new intelligent systems, takes stock of its activity in the second half of 2018 (from July 1 to December 31, 2018) and looks back over the highlights for that period.

**Eric Baissus, President of the Kalray Executive Board, made the following comments:**

*"2018 marked a turning point in Kalray's history, with the resounding success of our stock-market listing and the raising of €47.7 million, significant advances in the area of autonomous vehicles and data centers, the two markets on which we focus our priority.*

*We have just announced a major strategic partnership with NXP, the leading semiconductor supplier for the automotive industry, to develop a joint solution. Our technological advance also received particular acclaim from the automotive industry, as witness the prestigious partnerships announced with such players as Renault, Baidu and Autoware, reflecting the sophistication of our solutions in this area.*

*Kalray was also awarded NVMe certification for its processor, the industry's first in recognition of a comprehensive intelligence storage solution for data centers.*

*2019 will be a pivotal year for Kalray, with the commercial deployment of our third-generation processor, Coolidge, and the first volume sales of circuit boards for data centers, expected in the second half.*

*These major achievements since our stock-market listing, as well as our various ongoing projects, help drive us closer to our targets to ramp up sales in 2019, achieve operational balance<sup>1</sup> by 2020 and post €100 million in revenue by 2022."*

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<sup>1</sup>Operating income + research tax credit (CIR)





## ADVANCES IN LINE WITH THE ROADMAP ON BOTH TARGET MARKETS

In the second half of 2018, Kalray carried on its research and development activities and completed significant stages in both its priority application areas, **intelligent data centers** and **intelligent vehicles**, each representing a **potential market of more than one billion euros by 2022/2023**.

In the area of **intelligent data centers**, since the award of NVMe certification for its processor, Kalray has been supporting and advising its customers for integrating its solution in their own products aiming for new-generation storage solutions. This integration process mainly consists of supporting and advising customers in developing software solutions designed to produce a marketable end product that is easy to integrate in data centers. Alongside this, Kalray is pressing forward with its **commercial negotiations, which have reached an advanced stage** with key players in storage and with major integrators.

In the case of the **intelligent-vehicle** market, the cycle of selection, integration, testing and qualification at manufacturers is lengthier than for data centers. However, even though the first volume orders are expected to start only in 2022, as announced, the next 18 months will see the making of important decisions on the solutions selected for the first volume series. Kalray appears well positioned in view of the **signs of interest that the automotive industry** has been showing for several months:

- In May, Kalray's intelligent processors were integrated for the first time in **Renault's Symbioz® electric concept car**;
- In September, at the AutoSens conference in Brussels, it demonstrated the performance of the **Apollo open-software Platform**, based on its MPPA® ("Massively Parallel Processor Array") processor. The platform was developed by the Chinese Internet giant **Baidu** for automotive component suppliers in the autonomous driving segment;
- In December, Kalray became a premium founder member of the **Autware Foundation<sup>2</sup>**, aimed at facilitating deployment of the technologies used in autonomous vehicles by focusing support on the Autware open-source software suite, among the most widely deployed on the market for intelligent and autonomous systems;
- In January, the company entered into a strategic alliance with **NXP Semiconductors**, the leader in technology for new-generation vehicles, aiming at supplying a safe, reliable solution for autonomous vehicles, which is currently the major challenge. This partnership combines the processing power of the Kalray processors with the decision-making capability of NXP processors within the NXP Bluebox which will equip level 3 vehicles (with partial autonomy), and those of levels 4 and 5 (fully autonomous).

Lastly, Kalray is continuing the development of its **Coolidge 3<sup>rd</sup>-generation processor**, at a pace in line with the company's declared schedule, with the aim of making the processor available to its customers **during 2019**.

<sup>2</sup> The Autware Foundation was launched on December 10, 2018 to develop and facilitate the deployment of technologies for autonomous vehicles around the Autware open-source software solution. Alongside Kalray, the premium members of Autware include: Apex.AI, Arm, AutoCore, AutonomouStuff, Huawei, Linaro 96Boards, LG, Parkopedia, StreetDrone, Tier IV, TRI-AD (Toyota Research Institute Advanced Development, Inc.), and Velodyne. These members are supported by industrial, academic and non-profit founder members, such as eSOL, Intel, Nagoya University, OSRF (Open Source Robotics Foundation), RoboSense, Semi Japan, SiFive and Xilinx.





## A PACE OF ACTIVITY MEETING MANAGEMENT EXPECTATIONS

H2 revenue came to €453k (compared to €322k in H1), comprising sales of electronic boards, development platforms and licenses, as well as customer services during the evaluation and qualification stage.

This amount brought the 2018 revenue to €775k, slightly down from the 2017 fiscal year (€875k), Kalray prioritizing the roll-out of a product offering rather than the generation of short-term revenue via services for markets with less potential in the long term.

## A CASH POSITION ALLOWING CONTINUED IMPLEMENTATION OF THE ROADMAP

At December 31, 2018 available cash amounted to €28.8 million (compared to €32.2 million at June 30, 2018), enabling Kalray to continue with its technological roadmap and its commercial deployment plans. This cash level reflects the continued investment in the Coolidge development over the period, and factors in the excess allocation option exercised in July 2018, for €4.2 million.

Furthermore, on the recommendation of the remuneration committee and under the authorization given by the shareholders' general meeting on May 16, 2018, Kalray's Executive Board allocated 5,000 share warrants and 179,165 business creator share warrants to company management and employees on January 17, 2019, after authorization by the Supervisory Board. One quarter of each type of warrant allocated may be exercised in each of the four years following their allocation.

## A STRENGTHENED TEAM

During 2018, Kalray reinforced its teams with 13 recruitments, increasing the workforce to 74 at December 31, 2018. Olivier Lauvrey, widely recognized in the semiconductor world, with over 30 years' relevant experience, was promoted to the position of Executive Vice President of Global Sales. In this capacity his new mission, at the head of his team, is to scale up the commercial deployment of Kalray's MPPA® solutions ("Massively Parallel Processor Array") worldwide, to respond to strong international market demand.

## OUTLOOK FOR 2019

For FY 2019, Kalray forecasts notable growth in its revenue, chiefly earned from the data-centers market, for which the **first volume sales** of its processor are expected starting in the second half of 2019. Activity will also be buoyed by the marketing of the company's **Coolidge third-generation processor**, due **in the current fiscal year**.

The intelligent-vehicle segment has likewise shown tangible signs of accelerating, and the interest shown by a number of top-tier manufacturers and component suppliers has opened up promising new opportunities for Kalray in the medium term. **Evaluations of the Kalray offering** by customers and potential partners are continuing, and confirm the appropriateness of its products' positioning on this market.

To support the expected growth in its activity, Kalray is planning to continue its investment drive, particularly through several additional recruitments during the current fiscal year.



**Next publication:**

Monday, April 8, 2019 (after market close): 2018 annual results

**ABOUT KALRAY**

Kalray (Euronext Growth Paris — FR0010722819 — ALKAL) is the pioneer in processors for new intelligent systems. As a real technological breakthrough, “intelligent” processors have the capability to analyze on the fly, and in an intelligent manner, a very large amount of information, and to make decisions and interact in real time with the outside world. These intelligent processors will be deployed extensively in fast-growing sectors, such as new-generation networks (intelligent data centers) and autonomous vehicles, as well as healthcare equipment, drones, and robots. Kalray’s offering encompasses both processors and complete solutions (electronic boards and software). Created in 2008 as a spin-off of CEA (“Commissariat à l’énergie atomique et aux énergies alternatives”, the French Alternative Energies and Atomic Energy Commission), Kalray serves customers such as server manufacturers, intelligent system integrators, and consumer product manufacturers, including car makers. For more information, visit [www.kalrayinc.com](http://www.kalrayinc.com).

**CONTACTS FOR INVESTORS**

**Eric BAISSUS**  
[investors@kalrayinc.com](mailto:investors@kalrayinc.com)  
+33 4 76 18 90 71

ACTUS finance & communication  
**Caroline LESAGE**  
[kalray@actus.fr](mailto:kalray@actus.fr)  
+ 33 1 53 67 36 79

**MEDIA CONTACTS**

**Loic Hamon**  
[communication@kalrayinc.com](mailto:communication@kalrayinc.com)  
+33 4 76 18 90 71

ACTUS finance & communication  
**Serena BONI**  
[sboni@actus.fr](mailto:sboni@actus.fr)  
+ 33 4 72 18 04 92

