KALRAY

THE PROCESSOR AT THE HEART OF INTELLIGENT SYSTEMS

2018 ANNUAL RESULTS AND OUTLOOK FOR 2019

- A number of strategic agreements and significant commercial advances in the two targeted markets: intelligent data centers and intelligent vehicles;
- Tight budget control in 2018 and available cash of €28.8 million;
- Continuation of the recruitment drive initiated in 2018;
- Release of the 3rd generation MPPA® processor "Coolidge" scheduled for 2019, for artificial intelligence applications;
- Sales ramp up confirmed in 2019.

Grenoble, April 8, 2019 - Kalray (Euronext Growth Paris: ALKAL), a pioneer in processors for new intelligent systems, publishes its consolidated financial statements for FY 2018, approved by the Executive Board and reviewed by the Supervisory Board on April 4, 2019. The Group consolidated financial statements have been audited. The subsequent audit report will be issued after completion of all procedures for publication of the annual financial report.

Eric Baissus, President of Kalray's Executive Board, commented as follows:

"The significant milestones achieved since the resounding success of our IPO, which raised €47.7 million, and our many ongoing projects reaffirm our objective to kick-start Kalray's sales ramp up in 2019. 2019 will also be marked by the release of Coolidge, our 3rd generation MPPA® processor, which offers us tremendous opportunities for the future.

The very high degree of market interest in intelligent systems and our technologies is growing, particularly in the automotive sector, as attested by our strategic alliances with NXP, Renault, Baidu and Autoware. This means that we now rank as a key player in this industry.

Finally, the recent market concentration and discussions with our partners demonstrate how crucial acceleration and artificial intelligence technologies are for the future and reinforce the importance of Kalray's positioning and the market value of our technology."

A NUMBER OF STRATEGIC AGREEMENTS AND SIGNIFICANT COMMERCIAL ADVANCES

In 2018, Kalray achieved significant milestones in its two priority application areas **intelligent data centers** and **intelligent vehicles**, each representing **a potential market for Kalray to address of more than €1 billion by 2022/2023**.

In the area of **intelligent data centers**, after obtaining NVMe-oF certification for its processor, Kalray assists and works with its customers in embedding its software into their own products for next generation data center storage and acceleration architectures. There are notably two major projects in the final integration phase which are expected to be launched in the second half of 2019.

As for the **intelligent vehicle** market, Kalray is in a strong position in light of the **interest shown by the automotive industry** over recent months:

- In May 2018, Kalray's intelligent processors were embedded for the first time into **Renault's Symbioz autonomous electric concept car;**
- In September 2018, Kalray demonstrated its "Massively Parallel Processor Array" (MPPA®) architecture using the **Apollo open software platform** developed by the Chinese Internet giant **Baidu**, for automotive Tier 1s addressing autonomous driving;
- In December 2018, Kalray joined the **Autoware Foundation**[1] as a founding premium member, aiming to facilitate the deployment of technologies for autonomous vehicles by promoting the Autoware open source software suite project. One of the most widely deployed on the market for intelligent and autonomous systems. The Autoware Foundation showcased a demonstration vehicle last February in Japan which had integrated the Kalray MPPA processor;
- In January 2019, 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 will combine Kalray's high-performance intelligent MPPA® processors with the decision-making power of NXP processors within NXP's Bluebox solution, which will equip level 3 (partial autonomy), 4 and eventually 5 (fully autonomous) vehicles. At the same time, Baidu confirmed at CES in Las Vegas that it had selected Kalray's MPPA® as a partner platform for its Apollo solution for autonomous vehicles.

TIGHT BUDGET CONTROL IN 2018

The results for FY 2018 reflect the **increased pace of development programs** over the period as well as controlled expenditure.

Annual revenues for 2018, consisting of cards sales, development stations and licenses as well as customer services for the assessment and qualification phases, amounted to €775,000. This was slightly down from FY 2017

[1] The Autoware Foundation was launched on December 10, 2018 to develop and facilitate the deployment of technologies for autonomous vehicles around the Autoware open-source software solution. Alongside Kalray, the premium members of Autoware 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.

(€875,000), as Kalray focused on the deployment of a product offer rather than short-term revenue generation from services for markets with less long-term potential.
Adjusted operating result, after accounting for the R&D tax credit of €2,611,000, amounted to -€6,258,000 (loss), down €696,000 from 2017. The increase in capitalized production (up €1,299,000 in 2018 vs. 2017) and in R&D Tax Credit (up €565,000), reflects high innovation levels, and partially offset the increase in operating expenses over the period. Payroll costs (€761,000 higher than in 2017) were up due to 13 new hires, for a total headcount of 74 at December 31, 2018. The increase in outsourcing expenses for project engineering and development and hardware design (up €1,270,000) as well as the maintenance of design tool licenses (€327,000) are a reflection of the technological advances underway.

After booking a net financial expense of €2,241,000 (including a one-time charge of €2,070,000 for the non-conversion premium of convertible bonds), Kalray recorded a net loss of €8,532,000.

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 balance reflects the ongoing investment in the development of Coolidge over the period, and also takes into account the sums raised for the IPO.

CONTINUATION OF THE RECRUITMENT DRIVE INITIATED IN 2018

In order to support the expected business growth, Kalray will pursue its investment efforts, including the restructuring of its teams with 15 new hires planned for 2019, mostly in the first half of the year. R&D teams will be bolstered with highly experienced candidates, particularly for tests and qualifications, as will application development, data center and automotive teams. Kalray also plans to reinforce the sales teams (pre-sales engineers, commercial engineers) led by Olivier Lauvray, Vice President of Global Sales who joined the Group at the end of 2018.
All other operating expenses in 2019 are expected to be on a par with those of 2018.

COOLIDGE SCHEDULED FOR RELEASE IN 2019

On the technological front, Kalray confirms the commercial release of **Coolidge**, its 3rd generation MPPA® processor for artificial intelligence applications, in the **third quarter of 2019**. The company has since witnessed the high level of interest shown by the industry (data center and intelligent vehicle markets) for this new processor, which represents a major breakthrough in the use of MPPA® technology (highly optimized performance, expanded artificial intelligence capabilities, improved programming facility, high-performance interfaces, etc.). Kalray has already received initial requests to conduct **assessments and development/prototyping** from customers from both the data center and automotive sectors.

SALES RAMP-UP CONFIRMED IN 2019

In this context, Kalray **confirms its outlook to ramp up sales in 2019,** mostly for the **second half of 2019**. In 2019, Kalray will have several potential sources of income from:

- the signing of - as was the case in 2018 - **evaluation, development and service contracts each valued at several tens or even hundreds of thousands of euros,** enabling Kalray to assist and work alongside its clients in developing their next generation of products. Not only will these contracts generate immediate revenue, but they will also enable Kalray to work closely with its clients assisting them in the production of their next generation of products based on MPPA® technology. Kalray is confident that it will generate a significantly higher turnover than that achieved in 2018 (€775,000) from this revenue source alone.

- the **introduction of the first commercial products** based on the current generation of MPPA® processors, **Bostan,** for **data centers**. Kalray's strategy is to focus on embedding its processors into the storage and data center products of industry leaders. **Two ongoing projects** are already at a **very advanced** stage and enable us to target the **first revenues by the end of 2019**.

- sales of **MPPA® technology licences** for integration into partner products for markets similar to those targeted by Kalray. Two opportunities are currently under discussion.

These two new sources of additional revenue could take effect as early as this year.

At the same time, Kalray continues to engage in **business discussions and assessments** in its two target markets. A major car manufacturer has already selected Kalray as part of a large-scale project for a level 3 autonomous vehicle[2], scheduled to enter production in 2022.

Next publication:
Wednesday, July 17, 2019 (after market close): H1 2019 business report

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.

CONTACTS INVESTISSEURS
Eric BAISSUS
contactinvestisseurs@kalray.eu
Tel. 04 76 18 90 71

ACTUS finance & communication
Caroline LESAGE
kalray@actus.fr
Tel. 01 53 67 36 79

CONTACTS PRESSE
Loic HAMON
communication@kalray.eu
Tel. 04 76 18 90 71

ACTUS finance & communication
Serena BONI
sboni@actus.fr
Tel. 04 72 18 04 92

[2] A level that allows you to assign control to the vehicle in certain situations, for example in highway traffic jams. The human driver must nevertheless remain behind the wheel. They are expected to take back control in a few seconds, when the vehicle signals that it is no longer able to drive autonomously (for example, if there are no road markings on the roadway).

NOTES

Income statement – FY 2018

Consolidated – (€000)	2017	2018
Revenues	875	775
Capitalized production (R&D)	4.358	5.657
Subsidies	2.106	1.682
Other operating income	104	28
Operating income	7.443	8.142
Purchases and change in inventory	(251)	(237)
Operating expenses	(9.485)	(12.180)
of which personnel expenses	*(5,568)*	*(6,329)*
of which other operating expenses	*(3,917)*	*(5,851)*
EBITDA	(2.294)	(4.275)
Depreciation and amortization expenses	(5.314)	(4.594)
Operating income /(loss)	(7.608)	(8.869)
Research tax credit (CIR)	2.046	2.611
Adjusted operating income/(loss)	(5.562)	(6.258)
Financial income/(expense)	(179)	(2.241)
Non-recurring expenses	(1.102)	(33)
Net profit/(loss)	(6.843)	(8.532)

Balance sheet at December 31, 2018

(€000)	12/31/2017	12/31/2018
NON-CURRENT ASSETS	12,076	16,265
Intangible assets	9,649	14,217
Tangible assets	1,973	1,713
Financial assets	454	335
CURRENT ASSETS	5,316	33,582
Inventory	239	216
Accounts receivable	133	411
Research (CIR) tax credit, tax liabilities and subsidies	1,990	4,173
Cash and cash equivalents	2,954	28,782
ASSETS	17,530	50,118

(€000)	12/31/2017	12/31/2018
SHAREHOLDERS' EQUITY	(335)	35,541
TOTAL LIABILITIES	14,141	11,760
Provisions	18	85
R&D Conditional loans	6,354	5,815
Shareholder accounts	1,596	-
Bank loans	548	457
Accounts payable	4,237	3,571
Tax and social security liabilities	1,388	1,360
Other payables	-	472
Deferred income (subsidies)	3,723	2,817
EQUITY & LIABILITIES	17,530	50,118

Cash flow – FY 2018

Consolidated – (€000)	2017	2018
Operating cash flow before change in working capital	(2,339)	(3,509)
Change in working capital	(97)	(3,264)
Operating cash flows	**(2,436)**	**(6,773)**
Cash flows from investment activities - Fixed asset acquisitions	**(6,833)**	**(8,349)**
Free cash flow	**(9,270)**	**(15,122)**
Capital increase (net of expenses), bonds and shareholder loans	10,828	40,942
Net debt	592	358
Liquidity agreement	-	(350)
Cash flows from financing activities	**11,420**	**40,950**
Change in cash and cash equivalents	**2,151**	**25,828**
Opening cash balance	**803**	**2,954**
Closing cash balance	**2,954**	**28,782**