NXP and Kalray Enter Partnership to Develop Platform for Safe, Reliable Autonomous Driving

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Companies to combine technology and jointly market a Central Computing Platform

LAS VEGAS, Jan. 08, 2019 (GLOBE NEWSWIRE) -- NXP Semiconductors N.V. (NASDAQ: NXPI), a technology and market leader in next-generation automotive technologies, today announced a new strategic partnership with Kalray (Euronext Growth Paris – ALKAL), a pioneer in processors for new intelligent systems. The partnership will combine NXP's scalable portfolio of functional safety products for ADAS and Central Compute with Kalray's high-performance intelligent MPPA® (Massively Parallel Processor Array) processors. The new platform is significant because it addresses the performance, safety and near-term commercial needs of levels 2 and 3 driving with an eye to longer-term release in level 4 and 5 autonomous vehicles. The collaboration also aims to take on the safety shortcomings of today's pilots and experimental offerings in the autonomous development space.

The autonomous driving ecosystem faces technology challenges and concerns related to the safety of self-driving vehicles. Recent research indicates that while consumers are enthusiastic about an autonomous future, many hold deep reservations about whether self-driving vehicles will ever be safe. This perception has been reinforced by high-profile accidents involving prototypes and experimental vehicles. To overcome these technology and consumer confidence gaps, the autonomous ecosystem needs fail-safe automotive systems that enable a vehicle's central processing unit to protect drivers through a complex and heavily tested safety approach. NXP provides more than 25 years of expertise in the types of functional safety systems required to tackle autonomous driving.

NXP and Kalray have joined forces in a partnership to co-develop a central computing platform with safety as a foundation. NXP will offer the host processor of the platform, its high-performance S32 processor, with its safety critical ASIL D and ASIL B capabilities. This will help the platform tackle the requirements of automotive central computing and will target path planning functions. Kalray will deliver the world-class performance of its MPPA® processors to safely handle the machine learning aspects of perception.

The first example of this partnership will be the integration of Kalray's MPPA® processors into the NXP BlueBox, an embedded autonomous driving platform. This iteration will address autonomous challenges in power and safety with Arm®-based technology and will be designed to support open standards.

"We are happy to partner with Kalray to take on the safe performance challenges of increasingly autonomous driving," said Kamal Khouri, vice president & general manager, Advanced Driver Assistance, NXP. "Our platform offers the performance and functional safety needed for reliable autonomous driving as opposed to the risky and power-hungry consumer grade solutions that are currently being tested in vehicles."

The strategic partnership between NXP and Kalray will bring multiple benefits to the development and industrialization of autonomous vehicles in areas such as safety, software, open standards support, performance per watt, architecture flexibility, and scalability. The new solution will offer sophisticated safety technologies in a "Safety Co-Pilot" configuration that leverages the strengths of each company. In addition, the modularity and scalability of the combined architecture will offer the partners a roadmap with flexible opportunities for rapidly scaling performance.

"We are pleased to announce this strategic partnership with NXP, the leading supplier of semiconductors to the automotive industry," said Eric Baissus, CEO, Kalray. "Safety is unquestionably the single most pressing issue holding back the momentum of the autonomous vehicle movement globally, and we are confident that by leveraging the strengths of both companies we can overcome this critical industry challenge and provide a leading solution to the market."

At CES 2019, the partners will demonstrate the platform running a prototype of Baidu's Apollo open automotive software solution. Attendees can witness the platform demonstration at NXP's CES booth, LVCC, Central Plaza – CP 18.

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About NXP Semiconductors

NXP Semiconductors N.V. (NASDAQ:NXPI) enables secure connections and infrastructure for a smarter world, advancing solutions that make lives easier, better and safer. As the world leader in secure connectivity solutions for embedded applications, NXP is driving innovation in the secure connected vehicle, end-to-end security & privacy and smart connected solutions markets. Built on more than 60 years of combined experience and expertise, the company has over 30,000 employees in more than 30 countries and posted revenue of $9.26 billion in 2017. Find out more at www.nxp.com

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.

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