

VALEO UNVEILS ITS INNOVATIONS FOR THE REVOLUTIONS IN MOBILITY AT AUTOMOTIVE ENGINEERING EXPOSITION 2019

For the seventh consecutive year, Valeo will exhibit at Automotive Engineering Exposition held between May 23 and 25 in Pacifico in Yokohama and will unveil its latest technological innovations at the epicenter of the revolutions shaping today's automotive industry: electrification, autonomous vehicles and digital mobility.



Valeo will demonstrate an advanced **Life Detection system** for the first time in Japan. The radar sensor, powered by Vayyar Imaging, monitors the passengers' location, status, and the breath of living beings inside a vehicle. This radar can also detect infants who are out of sight, such as under blankets, in all light conditions, and without privacy infringement. It makes it possible to trigger a sound and a light alarm on the user's smartphone, if a child or a pet left alone in an unattended vehicle. Tragic accidents that infants in unattended

vehicles die too frequently occurs and it becomes a social issue. Child Presence Detection will be requested by Euro NCAP in 2022



Valeo SCALA 2 is new generation of Valeo SCALA, which is the first automotive grade laser scanner on the market, making its debut in 2017 with a German premium brand and the 2018 PACE award winner. Valeo SCALA 2 offers 3 times wider vertical field of view from its previous model enabling for example lane marking detection. It works during day and night at both low and high speeds, scanning its environment for any kind of obstacles. Valeo SCALA

2 will be a key enabler for highly automated driving. Valeo SCALA2 will be equipped to the vehicles of a leading German brand from 2020.



Autonomous vehicles are equipped with a multitude of sensors that enable them to analyze their surroundings. As these sensors need to be able to work at all times and in all types of weather, it is vital that they be clean at all times. Valeo has developed a range of fully automated cleaning systems for all types of cameras and LiDARs. Valeo will exhibit a module of **Sensor Cleaning** for cameras, LiDAR and Laser Scanners with telescopic nozzles incorporated in a head lump. Valeo also offers a deicing feature to ensure maximum

performance in winter. From 2020, the Sensor Cleaning for Laser Scanner will be fitted on the vehicles of a leading German brand.

Regarding the electrification, Valeo presents 4 new innovations of the affordable 48V technologies which will be applied to various types of vehicles.



Valeo displays as Japan premiere its **48V P2 Offline Hybrid Module**, which allows the hybridization with minimal transmission investment. It is a compact and transversal module compatible with most FWD application and AT, CVT, DCT and MT. Integrating an air conditioning compressor and a beltless motor generator, 48V P2 Offline Hybrid Module, keeps the air conditioning system working at low cost while the car is stopping by operating the compressor by the electric motor.



Valeo also makes the **48V Electric Rear Axle Drive Light**, full propulsion system based on 48V Gearbox Motor Generator, its debut in Japan. Having up to 19kW at peak and 12 kW in continuous, it is compatible with vehicles weighing up to 1,200 kg such as Kei-cars, heavy quadricycles (L7e) and Low-speed Electric Vehicle (LSEV). Its lightweight (less than 25 kg) and compact size allow an easy integration.



Valeo will showcase the **48V Belt eDrive**, as Japan premiere, a full propulsion system based on Belt Starter Generator, combined with an inverter and reducer. It is suitable to equip to vehicles weighing up to 700 kg such as light quadricycles (L6e), electric scooters and three-wheelers in the Asian market. Designed as a modular platform, it is possible to upgrade to higher power for upper class applications. Valeo plans to start serial production at the end of 2019.



In addition, Valeo presents its **48V On Board Charger** for the first time in Japan. It converts alternating current to direct current when externally charging a battery-EV / plug-in hybrid battery. It has a "patented structure combined with DC/DC Converter. Using the GaN technology, the generation 2 improves the power density and efficiency, and downsize the packaging.



Regarding the high-power solutions, Valeo Siemens eAutomotive has developed **High Power eDrive 100kW** combined with an inverter and reducer. It has a common liquid cooling system for Motor, Inverter & Transmission. It Integrated eDrive platform perfectly suited for vehicle platforms with a broad power range and a variety of drivetrain configurations.

The weight reduction is another way to reduce the CO₂ emission. Valeo has worked to develop structural vehicle parts made from a composite material **Overmolded organo sheet** that reduces the weight of a vehicle's body parts by 30% compared with steel equivalents, at a comparable price.



Valeo's **Lightweight Overmolded organo sheet bolster** has sufficient rigidity and strength. The material also provides the same shock-absorption capacity, guaranteeing a level of safety equivalent to steel parts.

Valeo booth in the Automotive Engineering Exposition 2019: No. 316

About Valeo in Japan

Valeo marked the first step in Japan by establishing a Japanese branch in December 1985. Japan, homeland of leading automotive manufacturers, is a key strategic country for Valeo Group. Valeo is a leading global automotive supplier with deep-rooted footprint in Japan through 17 plants, 7 R&D centers and 6,145 employees. Valeo Japan is Group's center stage for Research and Development, Manufacturing, Business Development and customer-care for the Japanese carmakers in Japan and worldwide.

Valeo is an automotive supplier, partner to all automakers worldwide. As a technology company, Valeo proposes innovative products and systems that contribute to the reduction of CO₂ emissions and to the development of intuitive driving. In 2018, the Group generated sales of 19.3 billion euros and invested 13% of its original equipment sales in Research and Development. At December 31, 2018, Valeo had 186 plants, 21 research centers, 38 development centers and 15 distribution platforms, and employed 113,600 people in 33 countries worldwide. Valeo is listed on the Paris stock exchange and is a member of the CAC 40 index.

Contact

Valeo Japan Co., Ltd.

4th floor, Glass City Motoyoyogi Bldg.

30-13 Motoyoyogi-cho, Shibuya-ku, Tokyo 151-0062, Japan

Tel: +81 (0)3 5465 5744

Fax: +81 (0)3 5465-5720

jp-communication.mailbox@valeo.com

www.valeo.co.jp