Valeo unveils SCALA2 Laser Scanner and 5 innovations at the epicenter of the 3 automotive revolutions at Automotive Engineering Exposition 2018

Tokyo, May 17, 2018 – For the sixth year running, Valeo will be at Automotive Engineering Exposition 2018 held between May 23 and 25 in Pacifico Yokohama, where it will unveil the Valeo SCALA 2, new generation of its laser scanner, as world premiere. Valeo also will give five major innovations, AI 3D Object Perception, 3D Gesture User Interface, PM 2.5 sensor, Air Purifier module and High Power eDrive System, their debut in Japan. These Valeo’s technologies are at the epicenter of the three revolutions shaping today’s automotive industry: electrification, autonomous vehicles and digital mobility.

Valeo will demonstrate Valeo SCALA 2 laser scanner for the first time in the world’s autoshows. The 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. The new 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.

AI 3D Object Perception is a full set of Deep Learning solutions for various tasks necessary for the automated driving. By using high resolution mega pixel Fisheye cameras, the system offers 360-degree high performance object detection and accurate pose estimation. It perceives the vehicle's environment such as the position and size of objects and its driving direction which will be essential data for the automated parking and automated driving.

3D Gesture User Interface is Valeo's new proposal which will enhance safety and will revolutionize the design around the steering wheel. 3D depth sensor, based on ToF camera, detects hands and fingers and recognizes interaction of driver with switchless “dead” surfaces of the steering wheel. Drivers are able to control equipments by the movement of fingers and hand without looking switches around the steering wheel.

Seeing clearly is linked to the sensor’s ability to operate correctly. To provide reliable information, the sensors must stay clean under all circumstances. For the Automotive Engineering Exposition, Valeo is presenting a full spectrum of Sensor Cleaning innovations for cleaning of front cameras, surround view cameras, rear cameras and laser scanners, ranging from entry-level models to high-performance, all-season varieties. Valeo-designed systems are characterized by the fact that they use less cleaning fluids. They also offer safety and comfort.

Valeo also cares the health and wellbeing in the car by offering innovations which improve the cabin air quality.
Valeo’s innovative **Air Purifier module** purifies the air that vehicle occupants breathe. This is done using a combination of three devices: a high-efficiency filter that traps 98% of ultrafine particles and toxic gases (which are not detected in today’s vehicles), a high-performance ionizer that cleans and deodorizes the vehicle cabin, and a purifier connected to sensors that detect inside and outside air quality and convey this information via the human-machine interface in real time.

Valeo has designed a **PM 2.5 sensor** to reassure passengers about indoor air quality. The PM 2.5 sensor detects pollution in the form of incoming particles, gives passengers real-time information about pollution levels inside and outside the vehicle and activates the air recirculation function to maintain the lifespan of the filter. Connection to the cloud enables this information to be shared with other connected users.

At this year’s Automotive Engineering Exposition, Valeo presents two solutions for the electrification: affordable 48V technologies and high-power solutions (above 60 volts) developed by the Valeo Siemens eAutomotive.

In CES 2018, Valeo conducted the demonstration of 48V full EV car, as our proposal for the future of mobility. This demo car equips **Valeo Electric Rear Axle Drive (eRAD 48V)**. 48 eRAD can also be used as a stand-alone electric propulsion motor for light battery electric city vehicles. Valeo’s 48-volt solutions can be applied across all vehicle types, to both gasoline and diesel engine models.

Valeo Siemens eAutomotive has developed **High Power eDrive System** that combines an electric motor with an inverter and reducer to offer a power without impacting fuel consumption. For example, it can be used for a four-wheel drive without all of the mechanical parts needed for a 4x4 transmission. **High Power eDrive System** is suited for vehicle platforms with a broad power range and a variety of drivetrain configurations.

Valeo also displays **Battery Liquid Cooler for EV Cylindric Cells**, which plays an essential role for ultra fast charge and optimal longevity. By putting the battery cooler in the space between cylindric cells of lithium-ion battery, it maximizes contact area and cooling performance by multiport tube processing.

**Valeo booth in the Automotive Engineering Exposition 2018: No. 351**

**Press Conference:** at 9 AM on May 23 in the booth

**About Valeo**

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 2017, the Group generated sales of 18.6 billion euros and invested 12% of its original equipment sales in Research and Development. At December 31, 2017, Valeo has 184 plants, 20 research centers, 35 development centers and 15 distribution platforms, and employs 111,600 people in 33 countries worldwide. Valeo is listed on the Paris stock exchange and is a member of the CAC 40 index.

**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.