PRESS RELEASE  
Paris, June 14, 2022

VALEO’S THIRD GENERATION LiDAR CHOSEN BY STELLANTIS  
FOR ITS LEVEL 3 AUTOMATION CAPABILITY

Stellantis has chosen Valeo’s third-generation LiDAR to equip multiple models of its different automotive brands from 2024. The Valeo SCALA 3 LiDAR will enable these vehicles to be certified for level 3 automation, allowing drivers to safely take their hands off the steering wheel and their eyes off the road.

As Yves Bonnefont, Chief Software Officer and member of Stellantis’ Top Executive Team, explains: “What sets cars apart from others today is the driving experience they offer. Thanks to our L3 autonomous driving solution leveraging Valeo’s latest generation LiDAR, we will offer a more enjoyable driving experience and give back time to the driver during their journeys.”

Marc Vrecko, President of Valeo’s Comfort & Driving Assistance Systems Business Group, commented: “A new chapter in driving assistance systems is being written with our partners at Stellantis. Level 3 vehicle automation can only be achieved with LiDAR technology. Without it, some objects cannot be detected. Yet at this level of autonomy, the system’s perception capabilities must be extremely precise. Our third-generation Valeo SCALA LiDAR offers a resolution nearly 50 times that of the second-generation device. The technology comes with unique data collection features, allowing Stellantis to pave the way for new vehicle experiences.”

Valeo’s third-generation LiDAR sees everything, even when an object is far ahead, invisible to the human eye. It can identify objects more than 150 meters ahead that neither the human eye, cameras nor radars can, such as a small object with very low reflectivity, for example a tire lying in the road. It recreates a 3D image of the vehicle’s surroundings using a point cloud, with an as yet unparalleled resolution for an automotive system. It can map the ground topology and detect road markings.
Valeo LiDAR also features embedded high performance software based on artificial intelligence algorithms, which enables it to steer the vehicle’s trajectory, anticipating obstacle-free zones on the road ahead. It can self-diagnose and triggers its cleaning system when its field of vision is obstructed. Like all Valeo LiDAR, the technology is automotive grade, meaning that the data it generates remain fully reliable and accurate in all usage and weather conditions (from -40 up to +85°C). It stands as the key component in a sensor system enabling vehicles to achieve approval for SAE conditional driving automation (level 3), meeting the legal requirements of UN-R157.

Valeo’s third generation LiDAR makes driving safer and gives time back to the driver in bothersome driving situations, such as when traveling at low or medium speed in heavy traffic. These challenges are central to the partnership between Stellantis and Valeo. Through its data collection capabilities, this LiDAR will enable new services to be offered to Stellantis’ customers.

Valeo is already world number one in advanced driver assistance systems (ADAS), equipping one in three new cars globally with its technologies. It was the first, and to date remains the only, company to produce an automotive LiDAR scanner on an industrial scale. More than 170,000 units have been produced and the technology is protected by more than 500 patents. The Group intends to accelerate even further in this field, as announced in February 2022 with the launch of its Move Up plan, the value creation strategy at the heart of the four megatrends disrupting mobility (electrification, ADAS, reinvention of the interior experience and lighting).