

PRESS RELEASE

Magneti Marelli at CES 2017 in Las Vegas

- Magneti Marelli technology and products is in the spotlight at the CES (Consumer Electronics Show) which is taking place in Las Vegas from the 5th to the 8th of January 2017
- Magneti Marelli is showcasing its technology and relative products for the automotive sector at the Wynn Hotel

Magneti Marelli is in the spotlight at the CES in Las Vegas for the third year with a display dedicated to technology and **innovation** in the automobile sector, specifically related to the topics of **Illumination**, **Electronic Systems** and **Motorsport**.

Magneti Marelli's presence is developed around the theme of **innovation** with a focus on connectivity and the V2X (Vehicle-To-Everything). Advanced telematics communication systems, putting particular emphasis on technology relative to autonomous driving and Smart Antennas, an "intelligent" antenna fitted with a modem capable of receiving and transmitting data from the car to services suppliers will also be displayed.

Las Vegas will also see **electronic systems** represented in particular by two product families with a high level of technological content; **instrument clusters** and **displays**. Magneti Marelli stands out in the international panorama as an integrated provider of systems and solutions which include ultra-thin displays, mechatronics for fixed and mobile displays, instrument clusters and touch technology, in order to offer an ever-improved response to the requirements of end users and manufacturers in terms of usability and safety. By using high-resolution displays, it is possible to create user-friendly systems which are optimised for visibility and brightness, and which allow both driver and passengers to always have on-board information regarding infotainment while never losing control of the vehicle.

The exhibition shows various **displays** such as the TFT (Thin Film Transistor) display with "black panel" effect in the all-new 2017 Alfa Romeo Giulia and 2018 Stelvio, which both integrate innovative "optical bonding" technology aimed at an ideal level of readability for the screen, and a display with "curved glass bonded" technology, as well as those with touch-screen technology used for the central console. Behind the steering wheel, Giulia and Stelvio features the full-color 7-inch TFT cluster straddled by two large white-on-black face analog gauges.

With regards to **instrument clusters**, Magneti Marelli offers a complete range of reconfigurable solutions to adapt to the requirements of international car manufacturers thanks to acquired know-how and innovative technology from the fields of optics, HMI (Human Machine Interface) and design.

The instrument clusters shown at Las Vegas are those from the new Audi Q5, the all-new 2017 Jeep Compass and the Peugeot 3008-5008. In particular, Magneti Marelli technology can be found on the new Peugeot SUVs with the 12" i-Cockpit and the 8" infotainment display. These are TFT displays which show information provided by the vehicle and the infotainment system. This instrument cluster can be reconfigured and comes with 3D technology.

In the field of **illumination**, the most up-to-date LED technology for both headlights and rear-lights is presented.

There are four models on display, each with unique characteristics which are representative of Magneti Marelli Automotive Lighting's efforts in advanced research and development as well as innovation. There are two headlights: the full-LED system for the Audi R8, which, as well as being fitted with a full-beam laser module, has continuous LED indicators, and those adopted by Volkswagen for the Passat, which presents a new system of LED reflection. There are two examples of LED rear lights, those from the Mercedes-Benz E-Class characterised by a very particular design, and the three-dimensional lights from the Porsche Panamera, connected by a thin line of LED lights.

Again in the lighting sector, visitors can immerse themselves in Magneti Marelli Automotive Lighting technology thanks to a demonstrative experience on the functioning of the different types of illumination system. Within the darkroom, visitors can test the characteristics of headlights and rear lights, as well as the functioning of the full-LED Matrix Beam headlight (LED full-beam with an adaptive system for the aiming of the light beam through the selective activation of the LEDs).

The cornerstone is the innovation coupling of **lighting** and **electronics** to support the future of autonomous driving. Integrated into the advanced projector headlamps and tail lamps are solid state Lidar, cameras, radar, and ultrasonic sensors to create "Smart Corner" a modular, self-contained, efficient solution to package and locate the many sensors required to support autonomous capability. Smart Corners will not stand alone as the autonomous solution, but will be complementary to the OEM strategy, will reduce the complexity at the OEM assembly plant and improve overall reliability and quality for the end customer.

Additionally, there is a focus on **motorsport** technology and in particular on Magneti Marelli's high capacity telemetry system which is fitted on all Formula 1 cars, as well as the High Speed Camera introduced this year in order to improve passive safety in Formula 1. The High Speed Safety Camera is a front-mounted camera aimed at the driver's helmet, which is capable of filming images with a frequency of 400 frames per second. It is an example of avant-garde technology awarded at Professional MotorSport World Expo 2016 in the "Motorsport Technology of the year" category, and developed in collaboration with the Global Institute for Motor Sport Safety and Sustainability of the FIA (Fédération Internationale de l'Automobile).

Finally, Magneti Marelli is proud to support the **Chrysler Portal concept** vehicle by providing the next generation products from our Automotive Lighting and Electronics divisions. The display systems provided by Magneti Marelli Electronics Systems offers

OEM's a wide creative pallet to choose from to shape the future of HMI. The curved glass touch screen allows for design options which were not possible in the past with significantly improved user interface and reactivity.

Magneti Marelli designs and produces advanced systems and components for the automotive industry. With 89 production units, 12 R&D centres and 30 application centres in 19 countries, approximately 40,500 employees and a turnover of 7.3 billion Euro in 2015, the group supplies all the major carmakers in Europe, North and South America and the Far East. The business areas include Electronic Systems, Lighting, Powertrain, Suspension and Shock absorbing Systems, Exhaust Systems, Aftermarket Parts & Services, Plastic Components and Modules, Motorsport. Magneti Marelli is part of FCA.