Press Release

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One Step Closer to Developing Road Infrastructure for Connected Vehicles

LACROIX City is partnering with Autopistas, a subsidiary of the Abertis Group (road infrastructure manager), to experiment with a new dynamic signage solution for connected vehicles. This solution perfects communication relays by sending real-time traffic information to vehicles with V2X communication capabilities. The development was made during an experiment on the AP7 motorway, near the city of Girona in Spain.

Adapting Road Infrastructure

Since 2018, Autopistas has been working with several economic and scientific players in the European INFRAMIX project, which aims to prepare road infrastructure for the gradual introduction of autonomous vehicles in the coming years. With this in mind, Abertis aspires to bring about the coexistence of conventional vehicles and new generations of connected cars. An experiment was therefore launched, in partnership with LACROIX City, on the AP7 motorway in Spain around the city of Girona. This experiment centred around the new generation of DMx dynamic signage – new variable-message signs. It is based on two innovations: the creation of new lanes, dedicated to connected cars, and the provision of LACROIX City's DMX^{ROAD} V2X solution. "*Our role is to support operators in their journey towards a smart road model. We must thereby anticipate changes in driving practices and usage. The benefits of working with Autopistas to optimise dynamic signage on connected roads are self-evident.*" Vincent Sabot, CEO of LACROIX City.

An Innovative Partnership at the Heart of Experimentation

The DMX^{ROAD} V2X solution is a dual innovation in both technology and road safety. In practical terms, a V2X roadside unit (UBR [unité de bord de route]) is integrated into the core of the management processor in DMx signage. Antennas installed on the structure receive and send real-time traffic information to vehicles with V2X communication capabilities. The information displayed on the DMx signs is relayed to connected vehicles travelling in the area via the V2X unit. This represents a major technological innovation in communication relays. Dual communication occurs: firstly, the information flows from the DMx sign to the UBR, then from the UBR to the car's interior. "*The DMX^{ROAD} V2X solution enhances road safety, which is a priority for LACROIX City. This solution effectively provides a dual-information system for the driver: displayed on the DMx sign during their journey and directly on their dashboard. The LACROIX City V2X relay effectively communicates the sign's messages directly to the driver's dashboard, including text and pictograms. Our DMX^{ROAD} V2X solution is a stable and easy-to-install V2X communication point for any type of variable-message sign device. With this solution, LACROIX City is supporting changing practices and innovating to optimise smart roads*", explains Vincent Sabot.

Operational Technology Deployment

The experiment tested the DMX^{ROAD} V2X solution in three different scenarios; the driver was warned of a change in lane allocation, the presence of motorway roadworks and roadblocks. In all three cases, the driver of the connected vehicle successfully received the DMx data directly on the dashboard of their car. "*The DMX^{ROAD} V2X solution from LACROIX City allows us to manage all proposed scenarios and represents a step forward in deploying V2X technology on our roads. The cooperation of the Autopistas and LACROIX City teams is facilitating simple and achievable technological deployment*", Xavier Daura, Head of Innovation at Autopistas.

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ABOUT LACROIX Group

LACROIX Group is an **international technological equipment supplier** whose ambition is to put its technical and industrial excellence at the service of a connected and responsible world. As a listed SME company, the Group combines the agility that is essential to innovating in a constantly changing technological universe with the long-term vision to invest and build the future.
LACROIX Group supplies safe, connected equipment to manage smart road infrastructure (street lighting, traffic management and regulation, signage and V2X) through **LACROIX City**, and to manage water and energy systems through **LACROIX Environment**.
LACROIX Group also develops and produces the electronic equipment of its customers in the automobile, home automation, aeronautic, manufacturing and health industries through **LACROIX Electronics.**
Instead of futuristic plans far removed from reality, the Group works with its customers and partners to build the link between the world of today and the world of tomorrow. Helping to build the industry of the future and benefitting from the innovation opportunities that surround it, the LACROIX Group provides equipment for a smarter world.
The Group's headquarters are located in Saint-Herblain, operating in France, Germany, Poland, Tunisia, Spain, Italy and Singapore. It has a turnover of 468 million euros. It is headed by Vincent Bedouin, 70% owned by family capital and 30% listed on Euronext's Compartment C.
For more information: www.lacroix-group.com.