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HORIBA MIRA AND COVENTRY UNIVERSITY TO USE PTV VISSIM FOR RESEARCH ON CONNECTED AND AUTONOMOUS VEHICLES

HORIBA MIRA and Coventry University are using PTV Vissim for the design, simulation and testing of Connected and Autonomous Vehicle (CAV) concepts as part of the UK Connected Intelligent Transport Environment (UK CITE) project.

The UK CITE project will create the most advanced environment for testing CAVs. It involves equipping over 40 miles of urban roads, dual-carriageways and motorways with combinations of three 'talking car technologies' and testing for a fourth, known as LTE-V. The project will establish how these technologies can improve journeys, reduce traffic congestion, provide entertainment and safety services through better connectivity.

HORIBA MIRA is a global provider of pioneering engineering, research and test services to the automotive, defence, aerospace and rail sectors. In the UK CITE project, HORIBA MIRA is leading the simulation and modelling activities and the initial tests on the company's City Circuit, which is a safe and fully controllable purpose built environment for the development and validation of Connected Autonomous Vehicle technologies and services.

Roberto Ponticelli, Chief Engineer – Intelligent Mobility at HORIBA MIRA says: *"The UK is paving the way in the development of CAV technologies. At HORIBA MIRA we are working in partnership with our clients to develop these technologies and address the test and validation challenges associated with CAV. PTV Vissim is a flexible modelling tool that offers the capability to test CAV concepts in detail in a traffic simulation environment."*

HORIBA MIRA will be supported by Coventry University's Mobility & Transport Research Centre, which focuses on the design and

engineering of future transport systems, including the growing influence of connectivity and automation.

Dr Olivier Haas, Reader Applied Control Systems at Coventry University says: *"Coventry will focus on driver modelling and human machine interface to develop a better understanding on how connected and automated vehicle (CAV) technology impact drivers' behaviour. This will allow to parameterise extensive driver models used in PTV Vissim as well as evaluate alternative driver models to predict the effects CAV technology can have on our roads."*

The UK CITE project is made up of the following consortium members: Visteon Engineering Services Limited, Jaguar Land Rover Ltd, Coventry City Council, Coventry University, Highways England Company Ltd, HORIBA MIRA, Huawei Technologies (UK) Co Ltd, Siemens PLC, Vodafone Group Services Ltd and WMG at University of Warwick.

PTV Vissim is the world's leading microsimulation tool for the modelling of multi-modal urban or motorway networks and testing the design and feasibility of transport infrastructure projects. It is also used by researchers, vehicle manufacturers and public authorities to design future transport systems, including CAVs concepts, and test their impact on road network capacity and operational performance. Concepts such as shorter lateral distance, platooning, vehicle to vehicle and traffic infrastructure communication, sensor detection and many more can be tested, designed and optimised using PTV Vissim. This can be done in a simulation environment to provide a solution to avoid costly trials.

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