10th October 2012

European vehicle manufacturers working hand in hand on deployment of cooperative Intelligent Transport Systems and Services (C-ITS)

The twelve vehicle manufacturers organised in the CAR 2 CAR Communication Consortium are signing a Memorandum of Understanding (MoU) to commonly bring cooperative Intelligent Transport Systems and Services (C-ITS) onto European roads. Herewith they approve to follow a joint guideline to make traffic and transport even safer, more sustainable and more comfortable in the near future.

The communication between vehicles as well as between vehicles and traffic infrastructure and service providers helps avoiding accidents by informing the drivers of potential dangers and enhances travel efficiency and comfort. European vehicle manufacturers issue a statement to the vital importance of C-ITS by working together in the CAR 2 CAR Communication Consortium. As a decisive initiative to bring cooperative systems into the market, the twelve vehicle manufacturers currently sign a Memorandum of Understanding (MoU) on a common strategy for the deployment of C-ITS.

By signing the MoU, the leading vehicle manufacturers signalise their intention to provide cooperative systems from 2015 on. Meanwhile they will take into account prescribed technical specifications like message formats and timing as well as security requirements having been developed under EU-Mandate M/453. They are herewith responding to the EU Directive from July 2010 which has pointed out the urgent need for a general implementation and deployment of cooperative ITS. By their initiative, the partners intend to encourage all stakeholders along the value chain of cooperative systems, for example suppliers, infrastructure manufacturers, road operators, traffic management centre, service providers as well as the public sector to likewise support the common implementation along the identified quality standards.

The initiative on joint market introduction is an important and decisive factor to make the benefits of C-ITS come alive for traffic participants at the highest extent: Cooperative Systems enable vehicles to exchange data, for example about their speed, their position and their driving direction, with other vehicles as well as with road side units (RSUs) attached to the traffic infrastructure, e. g. traffic lights or variable traffic signs. Adequate service levels on security and privacy, for example anonymisation,

are ensured. The in-vehicle system analyses the incoming data and detects if the individual vehicle is concerned by a potentially dangerous situation, for example if a vehicle in front suddenly slows down, if a broken down vehicle or road works block a lane, if there is an hazardous situation caused by weather conditions like local black ice or aqua planning, and gives an information and warning to the driver. Additionally the information provided by traffic infrastructure, for example about temporary speed limits or signal phases and timing of cooperative traffic lights, will not only help avoiding accidents, but also contributes to more efficient and comfortable driving by preventing abrupt speed changes, causing high emissions. These communication processes sharing cooperative real time information are in short described by the Acronym C2X Communication, with the X standing for vehicles as well as for traffic infrastructure.

Enabling traffic participants to experience these advantages of C-ITS at the highest extent possible requires a minimum penetration rate of equipped vehicles: The more vehicles capable of C2X communication are on the road and the more infrastructure units are equipped with cooperative systems, the higher the data basis the in-vehicle system can analyse to detect relevant information for the individual driver. Additionally it is of great importance that all equipped vehicles are ‚speaking one language', meaning that the different in-vehicle systems developed by vehicle manufacturer are interoperable and using common communication standards all over Europe.

Those requirements have already been established by the vehicle manufacturers organised in the CAR 2 CAR Communication Consortium who have heavily invested in the research of cooperative systems and conduced to the standardisation making C-ITS interoperable across borders and brands. The consortium as an industry driven, non-profit association of leading vehicle manufacturers, supported by suppliers and research organisations, has started its work in 2002. Important milestones achieved by the partners have been the allocation of a royalty free frequency band in the spectrum of 5.9 GHz for safety related services. Additionally, the consortium contributes to the European Standardisation Organisations, especially ETSI (European Telecommunications Standards Institute), but also CEN (European Committee for Standardisation), in identifying and developing the minimum set of standards for the day-one use cases of C-ITS. Day-one means that the functionality of a minimum set of services for C-ITS has to be ensured at the time of market introduction, which is coincidently open to be upgraded in successive phases depending on the development of further use and business cases.

Contact:

Søren Hess
General Manager of the CAR 2 CAR Communication Consortium
Tel: +45 4541 2821
Mail: sh@hess-consult.eu