

CAR 2 CAR Communication Consortium Statement:

Strong support for the European Strategy on C-ITS Deployment

23 February 2017

The European Commission has recently published the European Strategy on Cooperative Intelligent Transport Systems (C-ITS) – an important milestone for realising cooperative and automated mobility on European roads. The CAR 2 CAR Communication Consortium (C2C-CC) strongly supports this strategy, highlighting a hybrid communication approach for transmitting C-ITS messages using both direct vehicle communication (V2X ITS-G5 technology) as well as mobile radio communication. All research and development activities of the Consortium show that the V2X ITS-G5 technology is mature and displays a number of advantages for direct vehicle communication.

With the publication of the

COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS – A European strategy on Cooperative Intelligent Transport Systems, a milestone towards cooperative, connected and automated mobility – Document COM(2016) 766 final

on 30 November 2016, the European Commission has set the scene for C-ITS deployment in Europe. The C2C-CC expresses its strong support for this strategy, which considers a combination of different communication technologies for transmitting C-ITS messages. Hybrid communication based on existing mobile radio and direct vehicle communication has been identified as the best way for supporting automated and connected driving. For direct vehicle communication, V2X communication based on ETSI ITS-G5, IEEE 802.11p (V2X ITS-G5) is favoured.

The advantages of the V2X ITS-G5 technology are real-time operation in all scenarios (independent of cellular infrastructure even during high-performance operation), the capability of automotive functional safety (ISO 26262), and established concepts of security-by-design and privacy preserving technology, all-in-all harmonised with the C-ITS Deployment Platform.

V2X ITS-G5 has been developed and it is ready for the market. This is a precondition to facilitate V2X rollout in 2019. Suppliers are contracted with the V2X implementation. The essential IPRs and patents on V2X ITS-G5 are owned by members of the European C2C-CC and can be used royalty-free by all its members.

Recently, two important actions happened, which argue for V2X ITS-G5:

- ETSI ITS-G5 and especially the “Basic System Profile” specified by the C2C-CC have been integrated into the AUTOSAR Release 4.3. This release was published on 30 November 2016 and can be used by all manufacturers (automotive and infrastructure). AUTOSAR is the industrial standard for the vehicular electronic architecture. Vehicle manufacturers evaluate this as an important required step on the way implementing safety related applications.

- In USA, the long expected NPRM¹ (49 CFR Part 571, Federal Motor Vehicle Safety Standards; V2V Communications) has been signed and forwarded to US Federal Register for publication. As a result, IEEE 802.11p and the WAVE protocol extensions have become mandatory in the USA.

For the vehicle manufacturers it is of high importance that V2X systems are compatible in USA and Europe. The European system V2X (ETSI ITS-G5 / IEEE 802.11p) and the DSRC (Wave / IEEE 802.11p) system proposed by the NPRM are hardware compatible.

About the CAR 2 CAR Communication Consortium

Enhancing road safety and traffic efficiency by means of Cooperative Intelligent Transport Systems and Services (C-ITS) – is the dedicated goal of the CAR 2 CAR Communication Consortium. The industrial-driven, non-commercial association was founded in 2002 by vehicle manufacturers affiliated with the idea of cooperative road traffic with Vehicle-to-Vehicle Communications (V2V) supported by Vehicle-to-Infrastructure Communications (V2I). Today, the Consortium comprises of 89 members, whereof 18 vehicle manufacturers, 40 equipment suppliers and 31 research organisations.

Over the years, the CAR 2 CAR Communication Consortium has evolved to be one of the key players in preparing the initial deployment of C-ITS in Europe and the subsequent innovation phases. CAR 2 CAR members focus on wireless V2V communication applications based on ETSI ITS-G5 and concentrate all efforts on creating standards to ensure the interoperability of cooperative systems, spanning all vehicle classes across borders and brands. As a key contributor, the CAR 2 CAR Communication Consortium works in close cooperation with the European and international standardisation organisations such as ETSI and CEN.

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COM (2016) 766 - A European strategy on Cooperative Intelligent Transport Systems, a milestone towards cooperative, connected and automated mobility

https://ec.europa.eu/transport/themes/its/c-its_en

Setting the scene for the Pan-European Deployment of Cooperative, Connected and Automated Vehicles - C-ITS platform final report & Annexes

http://ec.europa.eu/transport/themes/its/c-its_en.htm

¹ Notice of Proposed Rulemaking (NPRM), proposed by National Highway Traffic Safety Administration (NHTSA), Department of Transportation (DOT)