

5GAA shares latest C-V2X developments at ITS World Congress (Hamburg): “5G will have the most revolutionary impact by reducing accidents and saving millions of lives.”

HAMBURG, 13 October 2021 – 5G-powered vehicles are foreseen to hit the market this year in Europe. More and more advanced vehicle-to-everything (V2X) use cases geared towards enhanced road safety, improved traffic efficiency, greener environmental impact and more comfortable driving are being deployed worldwide on a large scale. The 5G Automotive Association (5GAA) and its members showed the latest developments during ITS World Congress in Hamburg.

5G-V2X spearheading the path to automated driving

Today, the 5G-V2X (Vehicle-to-Everything) technology already enables fully connected and automated mobility with LTE-V2X technology. Vehicles and infrastructure can exchange relevant information via LTE-V2X through direct communication mode (not requiring network coverage) or mobile network communications mode, creating a real-time connection between all road users.

Many automotive services can be supported by the current global cellular standard LTE-4G, seen as an essential foundation for further progress. Millions of vehicles on the continent are connected via 4G-LTE already, and industry analysts estimate that over 70% of all new vehicles sold are now 4G equipped. That said, 5G-V2X will enable more advanced connected mobility services and offer a clear path to automated driving – while maintaining service-level interoperability with pre-existing LTE-V2X vehicles.

5GAA will help prepare tomorrow with the ITS Directive revision, advocating a neutral approach on technology. Given the strong momentum in China and in the United-States, Europe needs a future-proof framework to stay in a leading role globally. Indeed, advanced driving is taking shape globally. At the moment, China is the only country that has 5G Cellular-Vehicle-to-Everything (C-V2X) enabled vehicles commercially available on the market. To this date, 14 C-V2X vehicle models are commercialized. In the United States, Ford has committed to deploy C-V2X in all new vehicle models from early 2022. In Europe, 5G-powered vehicles are foreseen to hit the market still this year thanks to BMW.

“When applied to the automotive field, 5G will have the most revolutionary impact by saving millions of lives and reducing accidents on roads”, 5GAA CTO Maxime Flament said. “The combination of long- range and short-range connectivity C-V2X offers, delivers the optimal setup for safety and efficiency of traffic, in addition to improving environmental footprints.” Global deployment of C-V2X technology will have a sustainable impact in the world.

In the next two to three years, 5GAA expects to see mass deployment of C-V2X use cases geared towards improving traffic efficiency and road safety around the world. Vehicle commercialization is not enough however: the whole ecosystem - cars, cloud, map, network, positioning but also the road - needs to be C-V2X friendly. Therefore, 5GAA offers a platform to foster collaboration between top tier automotive, technology and telecommunications companies for them to develop end-to-end connectivity solutions for future mobility and transportation services.

Cover more digital roads via enhanced digital mobility services

At ITS World Congress, the world’s largest and most prominent event focused on smart mobility and the digitalisation of transportation, 5GAA experts and member spokespersons shared their views on how to accelerate deployment of the latest technology innovations and how to ensure future-proof investments.

They shared the needs of road operators for their digital infrastructure and of automakers (OEMs) for digital mobility services, and zoomed in on digital roads in urban areas and cooperation models enabling deployment and use of 5G infrastructures for connected and automated mobility.

Furthermore, key members of the 5GAA shared their latest technology developments with a focus on Vulnerable Road Users (VRUs), among which:

- A system that warns of accidents between and help protect connected vehicles and cyclists – or other vulnerable road users such as pedelec, scooter riders and pedestrians developed by Continental and Deutsche Telekom. The solution calculates the paths taken by cars and bicycles. If they are likely to cross at the same time, the system warns both road users via mobile communications in real-time. Initial road tests have been successful.
- A Location-as-a-Service algorithm that improves the positioning of road users, in which vehicles exchange data via simulated communication (5G) by Fraunhofer Institute FOKUS. The aim is to warn drivers of a collision with a cyclist, an e-scooter rider of road damage, or to guide a blind person to the right government office or the bus door - for which highly accurate localization is always of fundamental importance.
- A demonstration of a connected e-bike, where Qualcomm (alongside company Spoke) is showcasing a new hardware solution designed to enable vehicles to identify VRUs using C-V2X.

And more. Request the full list of demonstrations on demand at 5GAA@teamlewis.com

About 5GAA

The 5G Automotive Association (5GAA) is a global, cross-industry organization of over 130 members made of leading global automakers, Tier-1 suppliers, mobile operators, semiconductor companies, and test equipment vendors. It works together to develop end-to-end solutions for future mobility and transport services. 5GAA is committed to helping define and develop the next generation of connected mobility, automated vehicle, and intelligent transport solutions based on C-V2X.

Learn more on the 5GAA [website](#) and follow us on [Twitter](#) and [LinkedIn](#).

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