

Brussels, July 06th 2018 (updated July 27th)

Connected car legislation taking the wrong turn: Europe risks falling behind in 5G

Dear President Juncker,
Dear Vice-Presidents Timmermans, Ansip, Katainen and Šefčovič,
Dear Commissioners Bulc, Gabriel, Bieńkowska, Moedas, Vestager and Oettinger,

Cc. Secretary-General of the European Commission

As senior executives of global automotive, technology, and telecommunications companies, we fully share the European Commission's objective to "make Europe a world leader in the deployment of connected and automated mobility"¹, thereby significantly reducing the number of road fatalities and serious injuries, improving air quality and relieving traffic congestion.

To that extent, the Delegated Act being drafted under the Intelligent Transport Systems Directive² is of paramount importance, as it will set out the framework conditioning the uptake of Cooperative Connected and Automated Mobility in Europe.

Despite the European Commission's stated commitment to technology neutrality, **we are very concerned about the progressing Delegated Act. At the current time, it rules out the most recent technology, Cellular-V2X (C-V2X)**, favouring a specific and single-purpose Wi-Fi based technology path (known as ITS-G5), thus precluding the evolution to 5G for connected cars.

Limiting C-ITS deployment for vehicle-to-vehicle and vehicle-to-infrastructure communications to ITS-G5 would imperil the EU automotive industry's ability to compete in today's global and constantly evolving technological marketplace. Carmakers would be locked into a technology, which, despite its name, has no relationship to 5G technology and certainly no evolutionary path towards compatibility with 5G. This places Europe at an economic disadvantage compared with other regions of the world including China and the United States, where C-V2X is emerging as a strong technology candidate for C-ITS.

Such a decision would stunt the overall emergence of 5G connectivity infrastructure in Europe, and run counter to the objectives of the Commission's own 5G action plan³, which aims to promote early deployment of 5G along major transport paths. A de-facto ITS-G5 mandate will mean that the transportation and telecommunication industries have much less incentive to invest in 5G for automotive and to provide 5G coverage alongside road corridors.

¹ "On the road to automated mobility: An EU strategy for mobility of the future" COM(2018) 283

² Directive 2010/40/EU on the framework for the deployment of Intelligent Transport Systems in the field of road transport and for interfaces with other modes of transport

³ "5G for Europe: An Action Plan" COM(2016) 588

C-V2X technology offers a direct evolution path to 5G. It provides the best of both worlds, combining both direct short-range communication in the 5.9 GHz ITS spectrum band (not requiring network coverage or subscription) and long-range communication in licensed spectrum allocated for 4G and 5G, into a single, cost-effective platform.

C-V2X builds upon the technical efforts and investments made thus far to standardise and implement C-ITS, such as today's deployment by some carmakers of Day 1 and 1.5 services via existing cellular networks, already benefiting customers.

C-V2X enables synergies with both the transport and telecom infrastructure: substantial economic benefits can be gained by leveraging existing mobile network infrastructure for C-ITS.⁴ As 5G builds up, multiple synergies will be made possible with other vertical sectors e.g. smart cities or industry 4.0. In contrast, a single-purpose ITS-G5 network would have to be deployed and maintained in the next decades, at the sole cost of road operators.

In addition, C-V2X is the only technology offering the future capability to interlink the legacy fleet, or vulnerable road users, with the new C-ITS enabled vehicles via smartphone connectivity. This will lead to rapid positive safety impacts and thereby reduce fatalities and serious injuries on the EU's roads.⁵

It is important to understand that significant investment towards 5G by European companies is already taking place across Europe and around the world, with C-V2X technology trials in Germany, France, Spain, the United Kingdom, China, Japan, South Korea and the United States, and in-vehicle commercial launch foreseen at the latest by 2020 globally.

As highlighted by the European Commission's Communication "On the road to automated mobility"⁶, Europe needs a regulatory framework that supports and encourages innovation, enables increased investment and, more importantly, assures that as a community we create a thoroughly safe environment for the benefit of each European citizen.

We therefore call on the European Commission to craft a forward-looking, technology neutral framework, and to urgently address the shortcomings of the current EC Delegated Act, by including C-V2X on the list of potential technologies that European stakeholders may pursue. Moreover, the Delegated Act adoption should not be rushed but conducted in transparent consultation with all stakeholders.

The alternative is that Europe forfeits one of the most consequential technology transformations in our lifetime to global competitors and discourages a technology that would provide Europeans with the most potential safety benefits.

⁴ [Socio-economic benefits of Cellular V2X](#), Analysys Mason and SBD Automotive, December 2017

⁵ [An assessment of LTE-V2X \(PC5\) and 802.11p direct communications technologies for improved road safety in the EU](#), 5GAA, December 2017

⁶ 'On the road to automated mobility: An EU strategy for mobility of the future' COM(2018) 283

Signatories (updated July 27th):

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Deutsche Telekom AG – Timotheus Höttges, CEO

Ericsson – Börje Ekholm, CEO

Ford Motor Company – James Hackett, CEO

Gemalto – Philippe Vallée, CEO

Huawei Technologies Co Ltd – Eric Xu, CEO (rotating)

Infineon Technologies AG – Dr. Reinhard Ploss, CEO

Intel Corporation – Greg Pearson, Global Policy Officer - Senior Vice President

Laird CVS (Connected Vehicle Solutions) – Steve Brown, CEO

LG Electronics – I. P. Park, President and CTO

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