



Europe's leadership in connected and automated driving depends on technology-neutral, innovation-oriented policies

Dear Minister,

Serious concern has arisen in the telecoms and transport industries over the restrictive content of the forthcoming Delegated Act on Cooperative Intelligent Transport Systems (C-ITS). Although it is close to completion, the text still does not lay down the technology-neutral framework urged by the CEOs of 24 members of our associations (signatories included BMW, Daimler, Deutsche Telekom, Ericsson, Ford, Groupe PSA, Nokia, Telefonica and Vodafone) in their letter to President Juncker in July 2018¹.

Despite a welcome acknowledgement of cellular technologies, the draft Delegated Act only contemplates the Cellular Vehicle-to-Everything (C-V2X) technology family in the framework of a future revision of the Act in up to three years' time, with no guarantee to date that a level playing field will be ensured with respect to compatibility and interoperability requirements.

The current draft effectively endorses Wi-Fi based communication (known as "ITS-G5") as the baseline technology for connected cars in the EU, at the expense of a mature and standardised alternative²: LTE-V2X (which is the current realisation of C-V2X). We believe this contradicts the principle of technology neutrality and will prove to be a very costly missed opportunity for Europe.

Indeed, LTE-V2X is regarded internationally as the foundation stone which will pave the way towards the most advanced safety services enabled by 5G, in particular for vulnerable road users. Only C-V2X offers such a clear evolutionary roadmap starting with LTE-V2X today and evolving into 5G-V2X tomorrow, making it the only future-proof technology.

A decision exclusively favouring Wi-Fi technology today should thus be carefully considered. It would bear negative long-term consequences for Europe, since Wi-Fi offers no prospect of compatibility with 5G. A costly migration path would be required, resulting in significant sunk costs. It would stall C-V2X roll-out and investments in 5G for automotive and alongside the road network would be adversely affected.

LTE-V2X must be allowed to succeed as the first building block en route to the full realisation of 5G potential, ensuring the competitiveness of key industry verticals such as automotive as well as the telecom sector. A wrong decision at this critical juncture would put in jeopardy Europe's leadership and investment in 5G.

Connected vehicle and roadside infrastructure technology is evolving at a very fast pace. LTE-V2X field tests and deployment projects are under way in many EU countries as well as globally with the first market introductions foreseen in 2019, within the same timeframe as the Delegated Act publication.

¹ [CEO Letter to President Juncker on connected car legislation](#)

² Cf. Annex to this document



Leveraging all the previous work from European standardisation organisations, C-V2X offers unique benefits as a single technology platform, combining both direct short-range (not requiring network coverage or a subscription) and long-range modes.

It will, unhindered, significantly improve road safety in Europe through direct vehicle-to-vehicle, vehicle-to-infrastructure and, vehicle-to-network communication, but also provide new vehicle-to-pedestrian applications owing to its unique smartphone integration capacity, thereby reducing vulnerable road users' casualties (43% of EU road fatalities in 2017)³.

C-V2X also provides the fastest way to reach large-scale penetration of C-ITS: all new vehicles are expected to feature embedded cellular connectivity by 2021-2022. Many OEMs have already deployed some Day 1 C-ITS services using existing 3G/4G networks and LTE-V2X long-range mode.

We strongly believe that Europe should capitalise on these early deployments and would gain substantial economic benefits by maximising the synergies between transport and telecom network infrastructures. Today, LTE network population coverage averages 97.9% in Europe (89.9% of rural EU households) with a rapid year-on-year increase⁴, whereas ITS-G5 deployment has not yet begun.

In addition, consumer 5G is rapidly moving from trials to early commercialisation. Between 2018 and 2020, 48 countries will launch 5G mobile services across North America, Europe, the Middle East and Asia-Pacific.⁵

This is not about promoting individual companies that are about to launch their respective products. It is about creating the right framework which will support Europe to make the best technology choices in the future, to achieve our common objective: making the roads safer for all.

We encourage you to support a truly technology neutral approach to C-ITS through a Delegated Act inclusive of LTE-V2X, as it holds the promise of better safety. C-V2X is close to deployment in every world region as our entire ecosystem has stepped up its efforts to be market-ready in the upcoming months. However, it is absolutely critical for our industries that the EU regulatory framework provides sufficient legal certainty in order to pursue and accelerate current roll-out plans for C-V2X.

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³ [Road Safety in the EU – Trends, statistics and main challenges](#), April 2018, European Commission

⁴ [Broadband Coverage in Europe 2017](#), European Commission

⁵ GSMA intelligence



Annex - List of standards referenced by draft Delegated Act

Standard	Version	Name	Tech neutral ?	Equivalent standard for LTE-V2X
ETSI EN 302 636-4-1	V1.3.1 (2017-08)	Intelligent Transport Systems (ITS); Vehicular Communication; Geonetworking; Part 4 Geographical addressing and forwarding for point-to-point and point-to-multipoint communications; Sub-part 1: Media-Independent Functionality.	No	ETSI TS 102 636-7-1
ETSI TS 102 894-2	V1.3.1 (2018-08)	Intelligent Transport Systems (ITS); Users and applications requirements; Part 2: Applications and facilities layer common data dictionary	Yes	-
ISO/TS 19091	2017	Intelligent transport systems -- Cooperative ITS -- Using V2I and I2V communications for applications related to signalized intersections	Yes	-
ETSI EN 302 663	V1.2.1 (2013-07)	Intelligent Transport Systems (ITS); Access layer specification for Intelligent Transport Systems operating in the 5 GHz frequency band	No	ETSI TS 103 613
ETSI EN 302 571	V2.1.1 (2017-02)	Intelligent Transport Systems (ITS), Radiocommunications equipment operating in the 5 855 MHz to 5 925 MHz frequency band; Harmonised Standard covering the essential requirements of article 3.2 of Directive 2014/53/EU	Yes	-
ETSI TS 102 687	V1.2.1 (2018-04)	Intelligent Transport Systems (ITS); Decentralized Congestion Control Mechanisms for Intelligent Transport Systems operating in the 5 GHz range; Access layer part	No	ETSI TS 103 574 ETSI TS 103 61
ETSI TS 102 792	V1.2.1 (2015-06)	Intelligent Transport Systems (ITS); Mitigation techniques to avoid interference between European CEN Dedicated Short Range Communication (CEN DSRC) equipment and Intelligent Transport Systems (ITS) operating in the 5 GHz frequency range	Yes	-
ETSI EN 302 637-2	V1.3.2 (2014-11)	Intelligent Transport Systems (ITS); Vehicular Communications; Basic Set of Applications; Part 2: Specification of Cooperative Awareness Basic Service	No	Latest V1.4.0. inclusive of C-V2X
ETSI TS 102 724	V1.1.1 (2012-10)	Intelligent Transport Systems (ITS); Harmonized Channel Specifications for Intelligent Transport Systems	NA	Standard only applicable by design for ITS-G5



		operating in the 5 GHz frequency band		(not required for LTE-V2X) EN 302 571 or TS 103 613 offer generic alternatives
ETSI EN 302 636-5-1	V2.1.1 (2017-08)	Intelligent Transport Systems (ITS); Vehicular Communications; GeoNetworking; Part 5: Transport Protocols; Sub-part 1: Basic Transport Protocol	No	ETSI TS 102 636 7-2
ETSI TS 103 248	V1.1.1 (2016-11)	Intelligent Transport Systems (ITS); GeoNetworking; Port Numbers for the Basic Transport Protocol (BTP)	Yes	-
ETSI EN 302 931	V1.1.1 (2011-7)	Vehicular Communications; Geographical Area Definition	Yes	-
ETSI EN 302 637-3	v1.2.2 (2014-11)	Intelligent Transport Systems (ITS); Vehicular Communications; Basic Set of Applications; Part 3: Specifications of Decentralized Environmental Notification Basic Service	No	Latest V1.3.0. inclusive of C-V2X
ETSI TS 102 636-4-2	v.1.1.1 (2013-10)	Intelligent Transport Systems (ITS); Vehicular Communications; GeoNetworking; Part 4: Geographical addressing and forwarding for point-to-point and point-to-multipoint communications; Sub-part 2: Media-dependent functionalities for ITS-G5	No	ETSI TS 103 613
SAE J2945/1	2016-03	On-board System Requirements for V2V Safety Communications	Yes	-
ETSI TS 103 097	v1.3.1 (2017-10)	Intelligent Transport Systems (ITS); Security; Security Header and Certificate Formats	Yes	-
ISO 8855	(2011-12)	Road vehicles - Vehicle dynamics and road-holding ability, - Vocabulary	Yes	-
ETSI TS 103 301	V1.2.1 (2018-08)	Intelligent Transport Systems (ITS); Vehicular Communications; Basic Set of Applications; Facilities layer protocols and communication requirements for infrastructure services	NA	In general standard only applicable by design for ITS-G5 (not required for LTE-V2X)
ETSI TS 103 175	V1.1.1 (2015-06)	Intelligent Transport Systems (ITS); Cross Layer DCC Management Entity for operation in the ITS G5A and ITS G5B medium	NA	Standard only applicable by design for ITS-G5 (not required for LTE-V2X)
ISO/TS 19321	(2015-04-15)	Intelligent transport systems - Cooperative ITS - Dictionary of in-vehicle information (IVI) data structures	Yes	-