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Subject:	Proposal for a Directive of the European Parliament and of the Council amending 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 - General approach

Delegations will find enclosed, for information, the text on which the Transport, Telecommunications and Energy Council (Transport) reached a general approach on the above proposal at its meeting on 2 June 2022.

Amendments to the ITS Directive

[...]

Whereas:

- (1) The Commission's *Communication on a Sustainable and Smart Mobility Strategy*¹ identifies the deployment of Intelligent Transport Systems ('ITS') as a key action in achieving connected and automated multimodal mobility, and therefore contributing to the transformation of the European transport system to reach the objective of efficient, safe, sustainable, smart and resilient mobility. This complements the actions announced under the flagship on greening of freight transport to foster multimodal logistics. The strategy also announced for 2022 a revision of the Delegated Regulation (EU) 2017/1926 on multimodal travel information services to include mandatory accessibility of dynamic datasets, as well as an assessment of the need for regulatory action on rights and duties of multimodal digital service providers together with an initiative on ticketing, including rail ticketing.
- (2) The Sustainable and Smart Mobility Strategy confirms the objective to bring the death toll for all modes of transport in the Union close to zero by 2050. Several actions in the scope of Directive 2010/40/EU of the European Parliament and of the Council² contribute to the safety of road users, such as eCall, road safety-related traffic information services and safe and secure parking areas³.

¹ COM(2020)789 final.

² Directive 2010/40/EU of the European Parliament and of the Council of 7 July 2010 on the framework for the deployment of Intelligent Transport Systems in the field of road transport and for interfaces with other modes of transport (OJ L 207, 6.8.2010, p. 1).

³ As certified in accordance with Commission Delegated Regulation (EU) .../.... of 7 April 2022 supplementing Regulation (EC) No 561/2006 of the European Parliament and of the Council with regard to the establishment of standards detailing the level of service and security of safe and secure parking areas and procedures for their certification (C(2022) 2055 (final)).

- (3) The European Green Deal⁴ highlights the increasing role of automated and connected multimodal mobility, together with smart traffic management systems enabled by digitalisation, and the objective of supporting new sustainable transport and mobility services that can reduce congestion and pollution, especially in urban areas.
- (4) The growing need to make better use of data in making transport chains more sustainable, efficient and resilient, calls for enhanced coordination of the ITS framework with other initiatives aimed at harmonising and facilitating data sharing in the mobility, transport and logistics sectors with a multimodal perspective⁵.
- (5) In view of the need to digitalise road transport, to increase road safety and reduce congestion, the deployment and use of intelligent transport systems and services on roads should be further developed on the trans-European transport network.
- (6) In many Member States national applications of those systems and services are already being deployed in the road transport sector. However, despite improvements since its adoption in 2010, the evaluation of Directive 2010/40/EU⁶ found persistent shortcomings leading to remaining fragmented and uncoordinated deployment and lack of geographical continuity of ITS services throughout the Union and at its external borders.

⁴ Communication from the Commission – The European Green Deal, COM(2019) 640 final.

⁵ Such as the Common European Mobility data space and its components, Regulation (EU) 2020/1056 of the European Parliament and of the Council of 15 July 2020 on electronic freight transport information (OJ L 249, 31.7.2020, p. 33), and the work pursued by the Digital Transport and Logistics Forum (DTLF).

⁶ https://transport.ec.europa.eu/transport-themes/intelligent-transport-systems/road/action-plan-and-directive_en

- (7) In the context of the implementation of Commission Delegated Regulations⁷ supplementing Directive 2010/40/EU, Member States have established national access points⁸ (NAPs). The NAPs organise the access to and reuse of transport related data to help support the provision of EU-wide interoperable travel and traffic ITS services to end users. These NAPs are an important component of the common European mobility data space under the European strategy for data⁹ and should be relied upon in particular as regards the accessibility of data.
- (8) To ensure a coordinated and effective deployment of ITS within the Union as a whole, specifications including, where appropriate, standards, laying down further detailed provisions and procedures should be introduced, in addition to already adopted specifications. Before adopting any additional or revised specifications, the Commission should assess their compliance with certain defined principles set out in Annex II. Priority should be given in the first instance to the four main areas of ITS development and deployment. During further implementation of ITS the existing ITS infrastructure deployed by a particular Member State should be taken into account in terms of technological progress and financial efforts made.

⁷ Commission Delegated Regulation (EU) No 885/2013 of 15 May 2013 supplementing ITS Directive 2010/40/EU of the European Parliament and of the Council with regard to the provision of information services for safe and secure parking places for trucks and commercial vehicles (OJ L 247, 18.9.2013, p. 1);

Commission Delegated Regulation (EU) No 886/2013 of 15 May 2013 supplementing Directive 2010/40/EU of the European Parliament and of the Council with regard to data and procedures for the provision, where possible, of road safety-related minimum universal traffic information free of charge to users (OJ L 247, 18.9.2013, p. 6);

Commission Delegated Regulation (EU) 2015/962 of 18 December 2014 supplementing Directive 2010/40/EU of the European Parliament and of the Council with regard to the provision of EU-wide real-time traffic information services (OJ L 157, 23.6.2015, p. 21); and Commission Delegated Regulation (EU) 2017/1926 of 31 May 2017 supplementing Directive 2010/40/EU of the European Parliament and of the Council with regard to the provision of EU-wide multimodal travel information services (OJ L 272, 21.10.2017, p. 1).

⁸ https://transport.ec.europa.eu/transport-themes/intelligent-transport-systems/road/action-plan-and-directive/national-access-points_en

⁹ COM(2020) 66 final.

- (8a) It should be ensured, in particular for C-ITS, that requirements for ITS systems neither impose nor discriminate in favour of the use of a particular type of technology in line with the principle of technological neutrality as laid down in Directive (EU) 2018/1972¹⁰. If complementary, reliable and real-life tested C-ITS technologies can be used, coexistent applications should be enabled.
- (9) The specifications should take into account and build upon the experience and results already obtained in the field of ITS, cooperative intelligent transport systems (C-ITS) and cooperative, connected and automated mobility (CCAM), notably in the context of the C-ITS¹¹ and CCAM platforms¹², the European Forum for Multimodal Passenger Mobility¹³ and the European eCall Implementation Platform¹⁴.
- (10) The specifications should foster innovation. The increased availability of data should for example lead to the development of new ITS services, and vice-versa innovation should identify the needs for future specifications. New technologies, in particular for C-ITS, need to be tested in real road traffic conditions as a reliable service prior to deployment. The European Partnership on cooperative, connected and automated mobility under Horizon Europe should support the development and testing of the next wave of C-ITS services, helping the integration of highly automated vehicles in new multimodal mobility services.

¹⁰ Directive (EU) 2018/1972 of the European Parliament and of the Council of 11 December 2018 establishing the European Electronic Communications Code (OJ L 321, 17.12.2018, p. 36)

¹¹ Code E03188 in the Register of Commission Expert Groups and Other Similar Entities

¹² Code E03657 in the Register of Commission Expert Groups and Other Similar Entities

¹³ Code E03826 in the Register of Commission Expert Groups and Other Similar Entities

¹⁴ Code E02481 in the Register of Commission Expert Groups and Other Similar Entities

- (11) C-ITS use technologies that enable road vehicles to communicate with each other and with roadside infrastructure including traffic signals. C-ITS services are a category of ITS services based on an open architecture that enables a many-to-many or peer-to-peer relationship between C-ITS stations. This means all C-ITS stations should securely exchange messages with each other, and should not be limited to exchanging messages with pre-defined stations. Most services require ensuring the authenticity and integrity of C-ITS messages containing information such as position, velocity and heading. Therefore, one common European C-ITS trust model should be created to establish a relation of trust between all C-ITS stations, regardless of communication technologies used. That trust model should be implemented by the adoption of a policy on the use of a Public Key Infrastructure (PKI). The highest level of that PKI should be the European certificate trust list, consisting of entries of all trusted root certification authorities in Europe. To ensure the smooth functioning of that C-ITS trust model, certain tasks should be carried out at a central level. The Commission should ensure that those essential tasks are carried out, in particular as concerns the roles of (i) the C-ITS certificate policy authority in managing the certificate policy and the public keys infrastructure authorisation, (ii) the trust list manager in generating and updating the European Certificate Trust List (ECTL) and, for regular activity, in reporting to the C-ITS certificate policy authority as regards the overall secure operation of the C-ITS trust model, and (iii) the C-ITS point of contact in handling all communication with root certification authority managers and publishing the public key certificate of the trust list manager and the ECTL. The Commission currently also ensures the role of a European root certification authority, which may be maintained if appropriate, for example, to support migration plans in case another root certification authority is compromised.

- (12) Most actions under Directive 2010/40/EU, with the exception of eCall, have focused on the adoption of specifications to ensure the interoperability and accessibility of data that is already available in digital machine-readable format and on the deployment of ITS services, but prescribed no obligations to relevant stakeholders for making that data available in such format or for deploying specific services. The use of a number of ITS services has become widespread: for instance incident detection enabling road safety-related traffic information services, or data within other priority areas identified in this Directive, for instance traffic regulations, that support important services such as speed limits to support vehicles equipped with intelligent speed assistance under Regulation (EU) 2019/2144 of the European Parliament and of the Council¹⁵. The mandatory provision of certain ITS services and of certain data in machine-readable format is considered necessary to ensure both continued availability of such data and continued delivery of such services across the Union. It implies that the underlying information to be reflected in the machine-readable data already exists, irrespective of the format or medium in which it is presented. Data types and services, the provision of which should be made mandatory under this Directive, should be identified on the basis of the specifications adopted by the Commission by means of delegated acts supplementing Directive 2010/40/EU, in particular Commission Delegated Regulations (EU) No 2022/670¹⁶, (EU) 885/2013, (EU) 886/2013 and (EU) 2017/1926, and reflect the data types and services set therein.
- (12a) In the interest of continuity, data types and services the provision of which should be made mandatory under this Directive will require their availability within a concrete geographical

¹⁵ Regulation (EU) 2019/2144 of the European Parliament and of the Council of 27 November 2019 on type-approval requirements for motor vehicles and their trailers, and systems, components and separate technical units intended for such vehicles, as regards their general safety and the protection of vehicle occupants and vulnerable road users, amending Regulation (EU) 2018/858 of the European Parliament and of the Council and repealing Regulations (EC) No 78/2009, (EC) No 79/2009 and (EC) No 661/2009 of the European Parliament and of the Council and Commission Regulations (EC) No 631/2009, (EU) No 406/2010, (EU) No 672/2010, (EU) No 1003/2010, (EU) No 1005/2010, (EU) No 1008/2010, (EU) No 1009/2010, (EU) No 19/2011, (EU) No 109/2011, (EU) No 458/2011, (EU) No 65/2012, (EU) No 130/2012, (EU) No 347/2012, (EU) No 351/2012, (EU) No 1230/2012 and (EU) 2015/166 (OJ L 325, 16.12.2019, p. 1).

¹⁶ Commission Delegated Regulation (EU) 2022/670 of 2 February 2022 supplementing Directive 2010/40/EU of the European Parliament and of the Council with regard to the provision of EU-wide real-time traffic information services (OJ L 122, 25.4.2022, p. 1).

scope. For determining that scope, a gradual and proportionate approach should be followed, based on the experience and results already obtained and being obtained during the expansion.

- (13) The 2020 study “Mapping accessible transport for persons with reduced mobility”¹⁷ shows that the lack of sufficient data concerning accessibility features currently prevents reliable journey planning when using accessibility aspects as search variables. To further enhance the accessibility of the transport system and facilitate travel for people with disabilities and people with reduced mobility, multimodal digital mobility services require the availability of data on access nodes and their accessibility features.
- (14) The increased integration of ITS and advanced driver assistance systems, or vehicle and infrastructure systems in general, implies that such systems will rely more and more on the information they supply to each other. That is particularly the case for C-ITS. Such reliance will increase with higher levels of automation. These higher levels of automation are expected to make use of communication between vehicles and infrastructure to orchestrate manoeuvres and smoothen traffic flows, contributing also to more sustainable transport. Compromising the integrity of ITS services could thus have a severe impact on road safety, for example when an intentionally false information on danger induces vehicles into manoeuvres that put road users at risk, and could have a knock-on effect on the Union transport system. In order to ensure uniform conditions for the implementation of this Directive, implementing powers should be conferred on the Commission in situations where the integrity of ITS services is compromised and an intervention at Union level is urgently needed to ensure a safe and proper functioning of the Union transport system or road safety, to adopt countermeasures to address the causes and the consequences of that situation. Those measures should be taken as quickly as possible and be immediately applicable. Nevertheless, when preparing such countermeasures, the Commission should make all possible efforts to consult experts of Member States. Those powers should be exercised in accordance with Regulation (EU) No 182/2011 of the European Parliament and of the Council¹⁸. In consideration of the need to ensure continuity of transport, it is appropriate to

¹⁷ <https://op.europa.eu/en/publication-detail/-/publication/dfa0c844-3b5f-11eb-b27b-01aa75ed71a1>

¹⁸ Regulation (EU) No 182/2011 of the European Parliament and of the Council of 16 February 2011 laying down the rules and general principles concerning mechanisms for control by Member States of the Commission’s exercise of implementing powers (OJ L 55, 28.2.2011, p. 13).

apply the prolongation of the validity of such measure beyond six months making use of the possibility provided under Article 8(2) of Regulation (EU) No 182/2011. Such countermeasures should end as soon as an alternative solution is implemented or the emergency situation has been resolved.

- (15) Any processing of personal data under this Directive, such as the processing of location data when it allows to identify, directly or indirectly a person, should be carried out in accordance with Union law on the protection of personal data and privacy, as set out, in particular, in Regulation (EU) 2016/679 of the European Parliament and of the Council¹⁹ and in Directive 2002/58/EC of the European Parliament and of the Council²⁰. In accordance with Article 6 of Regulation (EU) 2016/679, this Directive should specify the purpose for which personal data may be processed under this Directive.

Where they involve the processing of personal data, the specifications to be developed under this Directive should provide for adequate and appropriate personal data protection safeguards in line with the requirements of Regulation (EU) 2016/679 and Directive 2002/58/EC, including with respect to the maximum duration of data storage, the anonymisation or the pseudonymisation of data. In particular, without prejudice to any specific requirement laid down in Union law regarding the use of anonymous or pseudonymised data, whenever it is possible to equally achieve the purposes pursued, anonymisation or pseudonymisation as techniques for enhancing individuals' privacy should be encouraged, in line with the principle of data protection by design. Moreover, safeguards in particular against misuse, including unlawful access, alteration or loss should be laid down in those specifications or in national law, as appropriate, in accordance with the requirements of Regulation (EU) 2016/679 and Directive 2002/58/EC.

- (17) Directive 2001/95/EC of the European Parliament and of the Council on general product safety²¹ applies to products for which sectorial legislation does not provide more specific

¹⁹ Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation) (OJ L 119, 4.5.2016, p. 1).

²⁰ Directive 2002/58/EC of the European Parliament and of the Council of 12 July 2002 concerning the processing of personal data and the protection of privacy in the electronic communications sector (Directive on privacy and electronic communications) (OJ L 201, 31.7.2002, p. 37).

²¹ Directive 2001/95/EC of the European Parliament and of the Council of 3 December 2001, on general product safety (OJ L 11, 15.1.2002, p. 4).

provisions with the same safety objective, as well as where the safety requirements imposed by a sectorial legislation do not cover the aspects and risks or category of risks covered by the said Directive (the so called “safety net”).

- (18) Where it is necessary to carry out a conformity assessment, the specifications should include detailed provisions laying down the procedure governing assessment of conformity or suitability for use of constituents. With respect to certain ITS services, and in particular with respect to C-ITS services, continuous compliance with certain requirements and interoperability are essential to ensure safety and proper functioning of the system. Therefore, where necessary, specifications that lay down requirements for products should also lay down procedures related to market surveillance, including a safeguard clause. Those provisions should be based on Decision No 768/2008/EC of the European Parliament and of the Council²², in particular concerning the modules for the various phases of the conformity assessment and market surveillance procedures. Regulation (EU) 2018/858 of the European Parliament and of the Council²³ lays down a framework for the type approval and market surveillance of motor vehicles and their parts or related equipment, and Regulations (EU) No 167/2013²⁴ and (EU) No 168/2013²⁵ of the European Parliament and of the Council lay down rules on the type approval of two- or three-wheel vehicles and quadricycles, and agricultural or forestry vehicles and their parts or related equipment. Therefore, it would be a duplication of work to provide for conformity assessment of equipment and applications falling within the scope of those legislative acts. However, those legislative acts on vehicle approval apply to ITS-related equipment installed in vehicles, but not to external road infrastructure ITS equipment and software which should fall under the remit of this Directive. In the latter case, the specifications could provide for conformity assessment and

²² Decision No 768/2008/EC of the European Parliament and of the Council of 9 July 2008 on a common framework for the marketing of products, and repealing Council Decision 93/465/EEC (OJ L 218, 13.8.2008, p. 82).

²³ Regulation (EU) 2018/858 of the European Parliament and of the Council of 30 May 2018 on the approval and market surveillance of motor vehicles and their trailers, and of systems, components and separate technical units intended for such vehicles, amending Regulations (EC) No 715/2007 and (EC) No 595/2009 and repealing Directive 2007/46/EC (OJ L 151, 14.6.2018, p. 1).

²⁴ Regulation (EU) No 167/2013 of the European Parliament and of the Council of 5 February 2013 on the approval and market surveillance of agricultural and forestry vehicles (OJ L 60, 2.3.2013, p. 1).

²⁵ Regulation (EU) No 168/2013 of the European Parliament and of the Council of 15 January 2013 on the approval and market surveillance of two- or three-wheel vehicles and quadricycles (OJ L 60, 2.3.2013, p. 52).

market surveillance procedures. Such procedures should be limited to what would be necessary in each separate case and aim, where appropriate, for a systematic approach to rules on the designation of conformity assessment bodies and the applicable procedures, in particular with regard to cross-border applications and services.

- (19) When the deployment and use of ITS equipment and software include artificial intelligence systems, the relevant provisions of the forthcoming Artificial Intelligence Act²⁶ should be taken into account.
- (20) For ITS applications and services for which accurate and guaranteed timing and positioning services are required, satellite-based infrastructures or any technology providing an equivalent level of precisions should be used. Synergies between the Union transport and space sectors should be exploited to foster the broader use of new technologies, which respond to the need of accurate and guaranteed timing and positioning services. The Union Space Programme established under Regulation (EU) 2021/696 of the European Parliament and of the Council²⁷ provides high-quality, up-to-date and secure space-related data, information and services through the Galileo, the European Geostationary Navigation Overlay Service (EGNOS), and Copernicus systems.
- (21) The provision of secured and reliable timing and positioning services is an essential element of the effective operation of ITS applications and services. Therefore, it is appropriate to ensure their compatibility with the authentication mechanism provided by the Galileo programme, in order to mitigate Global Navigation Satellite Systems (‘GNSS’) signal spoofing attacks.

²⁶ Proposal for a Regulation of the European Parliament and of the Council laying down harmonised rules on artificial intelligence (artificial intelligence act) and amending certain Union legislative acts (COM(2021) 206 final).

²⁷ Regulation (EU) 2021/696 of the European Parliament and of the Council of 28 April 2021 establishing the Union Space Programme and the European Union Agency for the Space Programme (OJ L 170, 12.5.2021, p. 69).

- (22) Member States and other relevant stakeholders, including other Commission expert groups and committees dealing with digital aspects of transport, should be consulted in the drawing up of the working programmes adopted by the Commission under Directive 2010/40/EU.
- (22a) Rules on reporting should be simplified and better allow for a comparative analysis. Therefore, one Member State report every three years, covering the implementation of the Directive and of all delegated and implementing acts, should replace the various existing reporting obligations, and a common template including certain key performance indicators should be established. Based on experience with the use of voluntary key performance indicators in the reports, the Commission should be able to select certain of those indicators to be included in the harmonised template.
- (23) To ensure uniform conditions for the implementation of this Directive, implementing powers should be conferred on the Commission as regards the adoption and updating of working programmes, the fixing of geographical coverages and respective deadlines for the deployment by Member States of mandatory data types and ITS services, and the adoption of the template for the reports to be provided by Member States. Those powers should be exercised in accordance with Regulation (EU) No 182/2011 of the European Parliament and of the Council²⁸.
- (24) In order to achieve the objectives of this Directive, the power to adopt acts in accordance with Article 290 of the Treaty on the Functioning of the European Union should be delegated to the Commission to amend the list of data types for which Member States are to ensure the availability of data and to amend the list of ITS services for which Member States are to ensure deployment, for a period of five years starting from the entry into force of this Directive. This period should be tacitly extended for periods of the same duration, unless the European Parliament or the Council oppose such an extension. It is of particular importance that the Commission carry out appropriate consultations during its preparatory work, including at expert level and with stakeholders, and that those consultations be conducted in accordance with the principles laid down in the Interinstitutional Agreement of

²⁸ Regulation (EU) No 182/2011 of the European Parliament and of the Council of 16 February 2011 laying down the rules and general principles concerning mechanisms for control by Member States of the Commission's exercise of implementing powers (OJ L 55, 28.2.2011, p. 13).

13 April 2016 on Better Law-Making²⁹. In particular, to ensure equal participation in the preparation of delegated acts, the European Parliament and the Council receive all documents at the same time as Member States' experts, and their experts systematically have access to meetings of Commission expert groups dealing with the preparation of delegated acts.

- (25) In order to guarantee a coordinated approach, the Commission should ensure coherence between the activities of the Committee established by this Directive and of the Committees established by Regulations (EU) No 165/2014³⁰, (EU) 2019/1239³¹, (EU) 2020/1056³² and (EU) 2018/858 of the European Parliament and of the Council, and by Directives 2007/2/EC³³ and Directive (EU) 2019/520 of the European Parliament and of the Council³⁴.
- (26) Since the objective of this Directive, namely to ensure the coordinated and coherent deployment of interoperable Intelligent Transport Systems throughout the Union, cannot be sufficiently achieved by the Member States and/or the private sector but can rather, by reason of its scale and effects, be better achieved at Union level, the Union may adopt measures, in accordance with the principle of subsidiarity as set out in Article 5 of the Treaty on European Union. In accordance with the principle of proportionality as set out in that Article, this Directive does not go beyond what is necessary in order to achieve that objective.
- (27) In accordance with the Joint Political Declaration of 28 September 2011 of Member States and the Commission on explanatory documents³⁵, Member States have undertaken to accompany, in justified cases, the notification of their transposition measures with one or

²⁹ Interinstitutional Agreement between the European Parliament, the Council of the European Union and the European Commission on Better Law-Making (OJ L 123, 12.5.2016, p. 1).

³⁰ Regulation (EU) No 165/2014 of the European Parliament and of the Council of 4 February 2014 on tachographs in road transport (OJ L 60, 28.2.2014, p. 1).

³¹ Regulation (EU) 2019/1239 of the European Parliament and of the Council of 20 June 2019 establishing a European Maritime Single Window environment and repealing Directive 2010/65/EU (OJ L 198, 25.7.2019, p. 64).

³² Regulation (EU) 2020/1056 of the European Parliament and of the Council of 15 July 2020 on electronic freight transport information (OJ L 249, 31.7.2020, p. 33).

³³ Directive 2007/2/EC of the European Parliament and of the Council of 14 March 2007 establishing an Infrastructure for Spatial Information in the European Community (INSPIRE) (OJ L 108, 25.4.2007, p. 1).

³⁴ Directive (EU) 2019/520 of the European Parliament and of the Council of 19 March 2019 on the interoperability of electronic road toll systems and facilitating cross-border exchange of information on the failure to pay road fees in the Union (OJ L 91, 29.3.2019, p. 45).

³⁵ OJ C 369, 17.12.2011, p. 14.

more documents explaining the relationship between the components of a directive and the corresponding parts of national transposition instruments. With regard to this Directive, the legislator considers the transmission of such documents to be justified.

- (28) The European Data Protection Supervisor was consulted in accordance with Article 42(1) of Regulation (EU) 2018/1725 of the European Parliament and of the Council³⁶ and delivered an opinion on 2 March 2022,

HAVE ADOPTED THIS DIRECTIVE:

Article 1

Amendments to Directive 2010/40/EU

Directive 2010/40/EU is amended as follows:

- (1) in Article 1, the following paragraph 2a is inserted:
- ‘2a. This Directive provides for the availability of data and deployment of ITS services within the priority areas referred to in Article 2 as specified in Annexes III and IV.’;
- (2) in Article 2, paragraph 1 is replaced by the following:
- ‘1. For the purposes of this Directive, the following shall constitute priority areas for the development and use of specifications and standards:
- (a) I. Information and mobility ITS services;
 - (b) II. Travel, transport and traffic management ITS services;
 - (c) III. Road safety and security ITS services;
 - (d) IV. ITS services for cooperative, connected and automated mobility.’;

³⁶ Regulation (EU) 2018/1725 of the European Parliament and of the Council of 23 October 2018 on the protection of natural persons with regard to the processing of personal data by the Union institutions, bodies, offices and agencies and on the free movement of such data, and repealing Regulation (EC) No 45/2001 and Decision No 1247/2002/EC (OJ L 295, 21.11.2018, p. 39).

(3) Article 4 is amended as follows:

(-a) point 4 is replaced by the following:

‘(4) “ITS service” means the provision of an ITS application through a well-defined organisational and operational framework with the aim of contributing to user safety, efficiency, sustainable mobility, comfort and/or to facilitate or support transport and travel operations;’

(a) point 18 is replaced by the following:

‘(18) “standard” means standard as defined in Article 2(1) of Regulation (EU) No 1025/2012 of the European Parliament and of the Council*;

* Regulation (EU) No 1025/2012 of the European Parliament and of the Council of 25 October 2012 on European standardisation, amending Council Directives 89/686/EEC and 93/15/EEC and Directives 94/9/EC, 94/25/EC, 95/16/EC, 97/23/EC, 98/34/EC, 2004/22/EC, 2007/23/EC, 2009/23/EC and 2009/105/EC of the European Parliament and of the Council and repealing Council Decision 87/95/EEC and Decision No 1673/2006/EC of the European Parliament and of the Council (OJ L 316, 14.11.2012, p. 12).’;

(b) the following points (19) to (24) are added:

‘(19) “cooperative intelligent transport systems” or “C-ITS” means intelligent transport systems that enable ITS users to interact and coordinate by exchanging secured and trusted messages without any prior knowledge of each other;

(20) “C-ITS service” means an ITS service provided through C- ITS;

(21) “availability of the data” means the existence of data in a digital machine-readable format;

(22) “National Access Point (NAP)” means a digital interface set up by a Member State that constitutes a single point of access to data, as defined in specifications adopted pursuant to Article 6;

(23) “accessibility of the data” means a possibility to request and obtain data in a digital machine-readable format;

(24) “multimodal digital mobility service” means a service providing information on traffic and travel data such as location of transport facilities, schedules, availability or fares for more than one transport mode, which may include features enabling the making of reservations, bookings or payments or the issuing of tickets.’;

(3a) the following Article is inserted:

‘Article 4a

Working programme³⁷

1. By [Date of entry into force + 12 months], the Commission shall, after consulting relevant stakeholders and by means of an implementing act, adopt a working programme. That implementing act shall be adopted in accordance with the examination procedure referred to in Article 15(4). The working programme shall include at least the following elements:

a) objectives and dates for its implementation every year, indicating for which work items specifications should be developed in accordance with Article 6;

b) the data types and ITS services for which the Commission may adopt delegated acts pursuant to Article 7(1) and (2).

³⁷ Text partly shifted from Article 17(5) of the proposal.

2. Before each subsequent five-year extension of the power to adopt delegated acts in accordance with Article 12(2), the Commission shall, by means of implementing acts, issue a new working programme including at least the elements referred to in paragraph 1, points (a) and (b). Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 15(4).

(4) Article 5 is replaced by the following:

‘Article 5

Application of specifications to the deployment of ITS

1. Member States shall take the necessary measures to ensure that the specifications adopted by the Commission in accordance with Article 6 are applied to ITS applications and services, where those are deployed, in accordance with the principles in Annex II. This is without prejudice to the right of each Member State to decide on its deployment of such applications and services on its territory. This right is without prejudice to Article 6a.

2. Where relevant, Member States shall cooperate in respect of the priority areas, insofar as no specifications have been adopted with regard to those priority areas.

3. Member States shall also cooperate, for instance through EU-supported coordination projects and where necessary with relevant stakeholders, on operational aspects of the implementation of the specifications adopted by the Commission, such as standards and EU harmonised profiles, common definitions, common metadata, common quality requirements and aspects related to the interoperability of NAPs’ architectures, common data exchange conditions, as well as common training and outreach activities. In respect of requirements for data providers, data users and ITS service providers set out in the specifications, Member States shall also cooperate, where relevant, on practices for assessing compliance with those requirements and on developing mechanisms for compliance enforcement.’;

(5) Article 6 is amended as follows:

(a) paragraph 5 is replaced by the following:

‘5. Without prejudice to the procedures set out by Directive (EU) 2015/1535 of the European Parliament and of the Council*, the specifications shall, where appropriate, stipulate the conditions in which Member States may, after notification to the Commission, establish additional rules for the provision of ITS services on all or part of their territory, provided that those rules do not hinder interoperability.’;

(b) paragraph 6 is replaced by the following:

‘6. The specifications shall, where appropriate, be based on any standards referred to in Article 8.

The specifications shall include rules for setting parameters related to quality and suitability for use. As appropriate and in particular where justified in the interest of safety and interoperability, the specifications shall include rules on conformity assessment and market surveillance, including a safeguard clause, in accordance with Decision No 768/2008/EC.

The Member States may designate one or several bodies competent to carry out the assessment of compliance with the requirements set out in the specifications, subject to any specific rules on assessment that may be set therein.

The specifications shall comply with the principles set out in Annex II.’;

(c) the following paragraph 8 is inserted:

‘8. The Commission shall adopt the specifications referred to in this Article by means of delegated acts in accordance with Article 12. A separate delegated act shall not cover more than one priority area and shall be adopted for each of the priority actions.’³⁸

* Directive (EU) 2015/1535 of the European Parliament and of the Council of 9 September 2015 laying down a procedure for the provision of information in the field of technical regulations and of rules on Information Society services (OJ L 241, 17.9.2015, p. 1).’;

(6) The following Article 6a is inserted:

Article 6a

Availability of data and deployment of ITS services

1. Member States shall ensure that for each data type listed in Annex III, where the underlying information already exists, data is available for the geographical coverage relative to such data type as early as possible and no later than the respective date set out in the implementing acts referred to in paragraph 3.

Member States shall ensure the accessibility of that data on the NAPs by the same date.

2. Member States shall ensure that the ITS services specified in Annex IV are deployed for the geographical coverage and no later than the respective date set out in the implementing acts referred to in paragraph 3.

³⁸ Note: This paragraph 8 partly contains the substance of Article 7(1) and (2) of the current Directive.

3. The Commission shall, by means of implementing acts adopted in accordance with Article 15(4), specify:

a) the geographical coverage relative to the data types listed in Annex III, and implementation deadlines;

b) the geographical coverage relative to the ITS services listed in Annex IV, and implementation deadlines.

When adopting such implementing acts, the Commission shall take into account the risk of interference with personal data as well as the costs and human resources needed to make the relevant data available and to deploy the relevant services with a sufficient level of quality in order to ensure that those costs and resources, in particular those incurred by public authorities, are kept to a minimum. The Commission shall also consider the costs and administrative burden on private operators which may be required to provide the data and services. Where the addition of data types or services to Annexes III and IV has been the subject of a cost-benefit analysis and impact assessment in accordance with Article 7(1) or (2), the Commission may use also the results of those analysis and impact assessment for its considerations.';

(7) Article 7 is replaced by the following:

Article 7

Amendments to Annexes III and IV

‘¹³⁹. Following a cost-benefit analysis and an impact assessment including appropriate consultations, the Commission is empowered to adopt delegated acts in accordance with Article 12 in view of market and technological development throughout the Union, in order to amend the list of data types in Annex III, by

- (a) adding or modifying data types which are inherently linked to the priority areas set out in Annex I and which are listed in the specifications established pursuant to Article 6(8), where the availability of such data types brings, according to the cost-benefit analysis and impact assessment, important and clearly justified benefits and improvements in terms of transport sustainability, transport safety and security, or transport efficiency and management, or
- (b) where clearly justified, deleting data types included in Annex III.

Each delegated act shall be consistent with the data types set out in the latest working programme adopted in accordance with Article 4a and shall not cover more than one priority area.

³⁹ Note: current paragraph 1 incorporated into Article 6, new paragraph 8.

2. Following a cost-benefit analysis and an impact assessment including appropriate consultations, the Commission is empowered to adopt delegated acts in accordance with Article 12 in view of market and technological development throughout the Union, in order to amend the list of ITS services in Annex IV by

- (a) adding or modifying services within the scope of Annex I in respect of which specifications have been established pursuant to Article 6(8), where the provision of such services brings, according to the cost-benefit analysis and impact assessment, important and clearly justified benefits and improvements in terms of transport sustainability, transport safety and security, or transport efficiency and management, or
- (b) where clearly justified, deleting services included in Annex IV.

Each delegated act shall be consistent with the list of ITS services set out in the latest working programme adopted in accordance with Article 4a and shall not cover more than one priority area.

3. When adopting delegated acts pursuant to this Article, the Commission shall take duly into account the risk of interference with personal data as well as the costs and human resources needed to make the relevant data available or to deploy the relevant services with a sufficient level of quality in order to ensure that those costs and resources, in particular those incurred by public authorities, are kept to a minimum. The Commission shall also consider the costs and administrative burden on private operators which may be required to provide the data and services.’;

(8) The following Article 7a is inserted:

Article 7a

Interim measures

1. Without prejudice to incident preparedness and response mechanisms, such as those established under Directive (EU) 2016/1148 of the European Parliament and of the Council*, the Commission may, at the request of a Member State or on its own initiative, in an emergency situation, adopt immediately applicable implementing acts laying down countermeasures to address the causes and consequences of that situation, such as the suspension of obligations within the scope of the priority areas set under Article 2. The Commission shall inform Member States as soon as possible when it considers that an emergency situation has occurred.

2. The Commission may adopt implementing acts in accordance with paragraph 1 only in the event of an unforeseen emergency situation arising from the availability or integrity of ITS services, which are the subject of specifications adopted in accordance with Article 6, being compromised, where such a situation is likely to compromise the safe and proper functioning of the Union transport system or has an adverse effect on road safety, and only where it cannot be expected that applying incident response mechanism or modifying specifications in accordance with Article 6 will ensure a timely and effective response. The measures adopted by the Commission shall be strictly limited to addressing the causes and consequences of such emergency situations.

3. The adoption of interim measures in accordance with this Article is without prejudice to the competence of Member States to take action in an emergency situation relating to matters of national security or defence which affect ITS applications and services deployed on their territory.

4. The implementing acts referred to in paragraph 1 shall be adopted in accordance with the procedure referred to in Article 15(3). Those implementing acts shall have a period of validity of no more than 8 months. The Commission shall inform Member States when it considers that the emergency situation has ended and repeal those acts once that situation has ended or the Commission has amended the relevant specifications in order to remedy the situation, whichever comes first⁴⁰.’;

*Directive (EU) 2016/1148 of the European Parliament and of the Council of 6 July 2016 concerning measures for a high common level of security of network and information systems across the Union (OJ L 194/1, 19.7.2016 p. 1) NOTE: to be updated once NIS2 enters into force (Proposal for a Directive of the European Parliament and of the Council on measures for a high common level of cybersecurity across the Union, repealing Directive (EU) 2016/1148, 2020/0359(COD))

- (9) in Article 8(1), the reference to ‘Directive 98/34/EC’ is replaced by the reference to ‘Directive (EU) 2015/1535’;
- (10) Article 10 is replaced by the following:

‘Article 10

Rules on data protection and privacy

1. Data that constitute personal data within the meaning of Article 4, point (1), of Regulation (EU) 2016/679*, shall be processed pursuant to this Directive only insofar as such processing is necessary for the performance of ITS applications, services and actions identified in Annex I in view of ensuring road safety or security, and enhanced traffic, mobility or incident management.

⁴⁰ Note: last sentence is shifted from Article 15(3).

2. Where specifications adopted pursuant to Article 6 concern the processing of data that are personal data as defined in Article 4, point (1) of Regulation (EU) 2016/679, they shall lay down the categories of those data and provide for appropriate personal data protection safeguards pursuant to Regulation (EU) 2016/679 and Directive 2002/58/EC. In that case, the impact assessment referred to in Article 6(7)⁴¹ shall include an analysis of the impact of such processing on the protection of the personal data in question.

3. Where appropriate, the use of anonymous data or the pseudonymisation of data shall be encouraged.

* Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation) (OJ L 119, 4.5.2016, p. 1).’;

(11) The following Article 10a is inserted:

‘Article 10a

EU C-ITS security credential management system

The specifications for the priority area referred to in Article 2(1), point (d), to be adopted by the Commission in the exercise of its powers pursuant to Article 6(8), shall lay down the EU C-ITS security credential management system referred to in point 4.3 of Annex I. The following roles of that system shall be specified:

- (a) C-ITS certificate policy authority;
- (b) C-ITS trust list manager;
- (c) C-ITS point of contact.

The Commission shall be responsible for ensuring that those roles are executed.’ ;

⁴¹ Note: Article 6(7) reads: ‘The Commission shall conduct an impact assessment including a cost-benefit analysis prior to the adoption of the specifications.’

(12) in Article 12(2), ‘27 August 2017’ is replaced by ‘[Publication Office: please insert the date of entry into force of this Directive]’;

(13) Article 15 is replaced by the following:

‘Article 15

Committee procedure

1. The Commission shall be assisted by the European ITS Committee (EIC). That committee shall be a committee within the meaning of Regulation (EU) No 182/2011 of the European Parliament and of the Council*.

2. Where reference is made to this paragraph, Article 4 of Regulation (EU) No 182/2011 shall apply.

3. Where reference is made to this paragraph, Article 8 of Regulation (EU) No 182/2011, in conjunction with Article 5 thereof, shall apply.

4. Where reference is made to this paragraph, Article 5 of Regulation (EU) No 182/2011 shall apply.

Where the committee delivers no opinion, the Commission shall not adopt the draft implementing act and the third subparagraph of Article 5(4) of Regulation (EU) No 182/2011 shall apply.

* Regulation (EU) No 182/2011 of the European Parliament and of the Council of 16 February 2011 laying down the rules and general principles concerning mechanisms for control by Member States of the Commission’s exercise of implementing powers (OJ L 55, 28.2.2011, p. 13).’;

(14) Article 17 is replaced by the following:

‘Article 17

Reporting⁴²

1. Member States shall submit to the Commission by [Date of entry into force + 18 months] a report on the implementation of this Directive and of the delegated acts adopted on the basis thereof, as well as on their main national activities and projects regarding the priority areas and regarding the availability of data and services listed in Annexes III and IV.
2. The Commission shall, by means of implementing acts, lay down the template for the initial and progress reports including a list of key performance indicators for assessing the implementation of this Directive and of the delegated and implementing acts adopted on the basis thereof. Those implementing acts shall, in the light of the principle of proportionality and on the basis of best practices, distinguish between mandatory key performance indicators to be included in the reports and additional indicators that may be included in such reports where appropriate. Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 15(4).
3. Following the initial report, Member States shall report every 3 years on the progress made in the implementation of this Directive and of the delegated and implementing acts adopted on the basis thereof. The Commission shall ensure that the deadlines for reporting laid down in the delegated acts adopted on the basis of Article 6 are aligned with that frequency.
4. The Commission shall submit, no later than 18 months after each deadline for Member State reports, a report to the European Parliament and to the Council on the progress made in the implementation of this Directive and of the delegated and implementing acts adopted on the basis thereof. The report shall be accompanied by an analysis on the functioning and implementation, including the financial resources used and needed, of Articles 5 to 11 and Article 16, and shall assess the need to amend this Directive, where appropriate.

⁴² Note: The terms of the working programme are shifted to new Article 4a.

- (15) Annexes I and II are replaced by the text in Annexes I and II to this Directive;
- (16) Annexes III and IV are added as set out in Annexes III and IV to this Directive.

Article 2

Transposition

1. Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive by [Date of entry into force + 24 months] at the latest. They shall forthwith communicate to the Commission the text of those provisions.

When Member States adopt those provisions, they shall contain a reference to this Directive or be accompanied by such a reference on the occasion of their official publication. Member States shall determine how such reference is to be made.

2. Member States shall communicate to the Commission the text of the main provisions of national law which they adopt in the field covered by this Directive.

Article 3

Entry into force

This Directive shall enter into force on the twentieth day following that of its publication in the *Official Journal of the European Union*.

Article 4

Addressees

This Directive is addressed to the Member States.

[...]

ANNEX I

PRIORITY AREAS

(as referred to in Article 2)

1. Priority area I: Information and mobility ITS services

The specifications and standards for information and mobility ITS services for passengers shall include the following:

1.1. Specifications for EU-wide multimodal digital mobility services (including EU-wide multimodal travel information services)

The definition of the necessary requirements to make EU-wide multimodal digital mobility services and similar services providing information, booking or purchasing features for more than one transport operator within the same mode of transport accurate and available across borders to ITS users, based on:

- 1.1.1. the availability and accessibility of existing and accurate multimodal traffic and travel data, used for multimodal digital mobility services to ITS service providers without prejudice to safety and transport management constraints;
- 1.1.2. the facilitation of the electronic data exchange between the relevant public authorities and stakeholders and the relevant ITS service providers, across borders, in particular through standardised interfaces;
- 1.1.3. the timely updating by the relevant public authorities and stakeholders of available multimodal traffic and travel data, used for multimodal digital mobility services;
- 1.1.4. the timely updating of multimodal travel information, including information related to booking and purchasing where relevant of transport services, by the ITS service providers.
- 1.2. Specifications for EU-wide road traffic information and navigation services (including EU-wide real-time traffic information services)

The definition of the necessary requirements to make EU-wide road traffic information and navigation services accurate and available across borders to ITS users, based on:

- 1.2.1. the availability and accessibility of existing and accurate road and traffic data, including real-time data, used for real-time traffic information to ITS service providers and other relevant stakeholders, and for use in digital maps, without prejudice to safety and transport management constraints;
- 1.2.2. the facilitation of the electronic data exchange between the relevant public authorities, stakeholders and the relevant ITS service providers, across borders, including feedback on quality of data;
- 1.2.3. the timely updating of available road and traffic data used for real-time traffic information by the relevant public authorities and stakeholders;
- 1.2.4. the timely updating of real-time traffic information to road users and other relevant stakeholders by the ITS service providers.
- 1.3. Specifications for EU-wide multimodal digital mobility services and road traffic information and navigation services
 - 1.3.1. The definition of the necessary requirements for the collection by relevant public authorities and/or, where relevant, by the private sector of road and traffic data (i.e. traffic circulation plans, traffic regulations and recommended routes, notably for heavy goods vehicles) and for their provisioning to ITS service providers, based on:
 - 1.3.1.1. the availability, to ITS service providers, of existing road and traffic data (i.e. traffic circulation plans, traffic regulations and recommended routes) collected by the relevant public authorities and/or the private sector;
 - 1.3.1.2. the facilitation of the electronic data exchange between the relevant public authorities and the ITS service providers and other relevant stakeholders;
 - 1.3.1.3. the timely updating, by the relevant public authorities and/or, where relevant, the private sector, of road and traffic data (i.e. traffic circulation plans, traffic regulations and recommended routes);
 - 1.3.1.4. the timely updating, by the ITS service providers, of the ITS services and applications using these road and traffic data.
 - 1.3.2. The definition of the necessary requirements to make road, traffic and relevant travel and multimodal infrastructure data used for digital maps accurate and available, where possible, to digital map producers and service providers, based on:
 - 1.3.2.1. the availability of existing road, traffic and relevant travel and multimodal infrastructure data, including identified access nodes, used for digital maps to digital map producers and service providers;
 - 1.3.2.2. the facilitation of the electronic data exchange between the relevant public authorities and stakeholders and the private digital map producers and service providers;

1.3.2.3. the timely updating of road and traffic data for digital maps by the relevant public authorities and stakeholders;

1.3.2.4. the timely updating of the digital maps by the digital map producers and service providers.

2. Priority area II: Travel, transport and traffic management ITS services

The specifications and standards for travel, transport and traffic management ITS services shall include the following:

2.1. Specifications for enhanced traffic and incident management services

The definition of the necessary requirements to support and harmonise enhanced traffic and incident management services, based on:

2.1.1. the availability and accessibility of existing and accurate road and traffic data and data on accidents and incidents needed for traffic and incident management services;

2.1.2. the facilitation of electronic data exchange, including freight data relevant for the traffic and incident management (e.g. carriage of dangerous goods, goods-related access restrictions, oversized carriages), between traffic management centres, traffic information centres, stakeholders and the relevant ITS service providers, across borders, in particular through standardised interfaces;

2.1.3. the timely updating of available road and traffic data and data on accidents and incidents needed for enhanced traffic and incident management services by the relevant stakeholders;

2.1.4. the availability of data and synergies with other initiatives aimed at supporting multimodality, integration of modes and the facilitation of modal shift on the European transport network towards the most sustainable modes of transport, through the harmonisation and facilitation of data sharing⁴³.

2.2. Specifications for mobility management services

The definition of the necessary requirements to support the development of accurate mobility management services by public transport authorities, based on:

2.2.1. the availability and accessibility of existing and accurate road and multimodal travel and traffic data needed for mobility management, to the relevant public authorities without prejudice to data protection requirements;

2.2.2. the facilitation of electronic data exchange between the relevant public authorities and stakeholders and the relevant ITS service providers, across borders;

⁴³ Such as Regulation (EU) 2020/1056 of the European Parliament and of the Council of 15 July 2020 on electronic freight transport information (OJ L 249, 31.7.2020, p. 33), and the work pursued by the Digital Transport and Logistics Forum (DTLF).

2.2.3. the timely updating of available road and multimodal travel and traffic data needed for mobility management by the relevant public authorities and stakeholders.

2.3. EU framework for ITS architectures

The definition of the necessary measures to develop an EU ITS framework architecture, addressing specifically ITS-related interoperability, continuity of services and multimodality aspects, within which Member States and their competent authorities in cooperation with the private sector can develop their own ITS architecture for mobility at national, regional or local level.

2.4. ITS applications and freight transport logistics

The definition of the necessary requirements to support the realisation of ITS applications for freight transport logistics, in particular the tracking and tracing of freight and other visibility services along its journey and across modes of transport, based on:

- 2.4.1. the availability of relevant ITS technologies to and their use by ITS application developers;
- 2.4.2. the availability of cargo related data, accessible through other specific data sharing frameworks⁴⁴;
- 2.4.3. the integration of positioning results in the traffic management tools and centres.

3. Priority area III: Road safety and security ITS services

The specifications and standards for road safety and security ITS services shall include the following:

3.1. Specifications for the interoperable EU-wide eCall

The definition of the necessary measures for the harmonised provision of an interoperable EU-wide eCall, including:

- 3.1.1. the availability of the required in-vehicle ITS data to be exchanged;
- 3.1.2. the availability of the necessary equipment in the emergency call response centres receiving the data emitted from the vehicles;
- 3.1.3.** the facilitation of the electronic data exchange between the vehicles and the emergency call response centres, including possible interaction with data in the scope of Regulation (EU) 2020/1056 and with e-CMR* for instance in the case of dangerous goods.

⁴⁴ Such as Regulation (EU) 2020/1056.

*Additional Protocol to the Convention on the Contract for the International Carriage of Goods by Road (CMR) concerning the electronic consignment note

3.2. Specifications for information and reservation services for safe and secure parking places for trucks and commercial vehicles

The definition of the necessary measures to provide ITS based information and, where relevant, reservation services for safe and secure parking places for trucks and commercial vehicles, in particular in service and rest areas on roads, based on:

- 3.2.1. the availability of the road parking information to users;
 - 3.2.2. the facilitation of the electronic data exchange between road parking sites and spaces, centres and vehicles;
 - 3.2.3. the integration of relevant ITS technologies in both vehicles and road parking facilities to update the information on available parking space for reservation purposes.
- 3.3. Specifications for road safety related minimum universal traffic information

The definition of minimum requirements, for road safety related ‘universal traffic information’ provided, where possible, free of charge to all users, as well as their minimum content, based on:

- 3.3.1. the availability and accessibility of accurate data on safety-related events and conditions needed for safety-related traffic information and incident management services;
 - 3.3.2. the deployment or use of the means to detect or identify safety-related events and conditions;
 - 3.3.3. the identification and use of a standardised list of safety related traffic events (‘universal traffic messages’) which should be communicated to ITS users free of charge;
 - 3.3.4. the compatibility and the integration of ‘universal traffic messages’ into ITS services for real-time traffic and multimodal travel information.
- 3.4. Specifications for other actions

- 3.4.1. The definition of the necessary measures to support the safety of road users with respect to their on-board Human-Machine-Interface and the use of nomadic devices to support the driving task and/or the transport operation, as well as the security of the in-vehicle communications which fall outside the scope of Regulation (EU) 2018/858 of the European Parliament and of the Council⁴⁵, Regulation (EU) No 167/2013 of the European Parliament and of the Council⁴⁶ and Regulation (EU) No 168/2013 of the European Parliament and of the Council⁴⁷.
- 3.4.2. The definition of the necessary measures to improve the safety and comfort of vulnerable road users for all relevant ITS applications which fall outside the scope of Regulation (EU) 2018/858 of the European Parliament and of the Council, Regulation (EU) No 167/2013 of the European Parliament and of the Council and Regulation (EU) No 168/2013 of the European Parliament and of the Council.
- 3.4.3. The definition of necessary measures to integrate advanced driver support information systems into vehicles and road infrastructure which fall outside the scope of Regulation (EU) 2018/858 of the European Parliament and of the Council, Regulation (EU) No 167/2013 of the European Parliament and of the Council and Regulation (EU) No 168/2013 of the European Parliament and of the Council.
- 3.4.4. The definition of the necessary measures to facilitate the exchange of information between services providers of security ITS applications, such as support to recover stolen vehicles or goods, and relevant public authorities, taking due account of other existing and emerging frameworks aimed at facilitating data sharing in mobility and transport which fall outside the scope of Regulation (EU) 2018/858 of the European Parliament and of the Council, Regulation (EU) No 167/2013 of the European Parliament and of the Council and Regulation (EU) No 168/2013 of the European Parliament and of the Council.

⁴⁵ Regulation (EU) 2018/858 of the European Parliament and of the Council of 30 May 2018 on the approval and market surveillance of motor vehicles and their trailers, and of systems, components and separate technical units intended for such vehicles, amending Regulations (EC) No 715/2007 and (EC) No 595/2009 and repealing Directive 2007/46/EC (OJ L 151, 14.6.2018, p. 1).

⁴⁶ Regulation (EU) No 167/2013 of the European Parliament and of the Council of 5 February 2013 on the approval and market surveillance of agricultural and forestry vehicles (OJ L 60, 2.3.2013, p. 1).

⁴⁷ Regulation (EU) No 168/2013 of the European Parliament and of the Council of 15 January 2013 on the approval and market surveillance of two- or three-wheel vehicles and quadricycles (OJ L 60, 2.3.2013, p. 52).

4. Priority area IV: ITS services for cooperative, connected and automated mobility

The specifications and standards for linking vehicles with the transport infrastructure, raising awareness and enabling highly automated mobility services, shall include the following, without prejudice to specifications and standards in Regulation (EU) 2018/858 of the European Parliament and of the Council, Regulation (EU) No 167/2013 of the European Parliament and of the Council and Regulation (EU) No 168/2013 of the European Parliament and of the Council:

- 4.1. The definition of necessary measures to further progress the development and implementation of cooperative (vehicle-vehicle, vehicle-infrastructure, infrastructure-infrastructure) intelligent transport systems, in particular to support CCAM, based on:
 - 4.1.1. the facilitation of the exchange of data or information between vehicles, between infrastructures and between vehicles and infrastructures and between other road users and vehicles and infrastructures;
 - 4.1.2. the availability of the relevant data or information to be exchanged to the respective vehicle or road infrastructure parties;
 - 4.1.3. the use of a standardised message format for the exchange of data or information between the vehicle and the infrastructure;
 - 4.1.4. the definition of a communication infrastructure for data or information exchange between vehicles, between infrastructures and between vehicles and infrastructures;
 - 4.1.5. the use of standardisation processes to adopt the respective architectures.
- 4.2. Specifications for services
 - 4.2.1. C-ITS information and warning services based on status data that increase the awareness of transport users of upcoming traffic situations;
 - 4.2.2. C-ITS information and warning services based on observations that further increase the awareness of transport users on upcoming traffic situations, including non-connected transport users;
 - 4.2.3. C-ITS services based on intentions that allow vehicles to deal with complex traffic scenarios and enable highly automated driving;
 - 4.2.4. C-ITS infrastructure services to support automated driving.
- 4.3. Specifications for the EU C-ITS security credential management system
 - 4.3.1. certificate policy for the management of public key certificates for C-ITS services;
 - 4.3.2. laying down the role of the C-ITS certificate policy authority, the C-ITS trust list manager and the C-ITS point of contact;
 - 4.3.3. security policy for the management of information security in C-ITS.?

ANNEX II

PRINCIPLES FOR SPECIFICATIONS AND DEPLOYMENT OF ITS

(as referred to in Articles 5, 6, 7 and 8)

The adoption of specifications, the issuing of mandates for standards and the selection and deployment of ITS applications and services shall be based upon an evaluation of needs involving all relevant stakeholders, and shall comply with the following principles. These measures shall:

(a)	be effective	–	make a tangible contribution towards solving the key challenges affecting road transportation in Europe (e.g. reducing congestion, lowering of emissions, improving energy efficiency, attaining higher levels of safety and security including vulnerable road users);
(b)	be cost-efficient	–	optimise the ratio of costs in relation to output with regard to meeting objectives;
(c)	be proportionate	–	provide, where appropriate, for different levels of achievable service quality and deployment, taking into account the local, regional, national and European specificities;
(d)	support continuity of services	–	ensure seamless services across the Union, in particular on the trans-European network, and where possible at its external borders, when ITS services are deployed. Continuity of services should be ensured at a level adapted to the characteristics of the transport networks linking countries with countries, and where appropriate, regions with regions and cities with rural areas;
(e)	deliver interoperability	–	ensure that systems and the underlying business processes have the capacity to exchange data and to share information and knowledge to enable effective ITS service delivery;
(f)	support backward compatibility	–	ensure, where justified, the capability for ITS systems to work with existing systems that share a common purpose,

			without hindering the development of new technologies and while supporting, where relevant, the complementarity with or transition to new technologies;
(g)	respect existing national infrastructure and network characteristics	–	take into account the inherent differences in the transport network characteristics, in particular in the sizes of the traffic volumes and in road weather conditions;
(h)	promote equality of access	–	do not impede or discriminate against access to ITS applications and services by vulnerable road users. Where relevant, be accessible for persons with disabilities in line with the accessibility requirements of Annex I of Directive 2019/882 when the ITS applications and services are meant to interface or provide information to ITS users with disabilities; be user-friendly towards persons with limited digital knowledge;
(i)	support maturity	–	demonstrate, after appropriate risk assessment, the robustness of innovative ITS systems, through a sufficient level of technical development and operational exploitation;
(j)	deliver quality of timing and positioning	–	ensure the compatibility of ITS applications and services, which rely on timing or positioning, with at least the navigation services provided by the Galileo, including Open Service navigation Message Authentication and other Galileo services such as High Accuracy Service, when such service becomes available, and the European Geostationary Navigation Overlay Service (‘EGNOS’) systems. Where appropriate, ensure that ITS applications and services relying on Earth observation data use Copernicus data, information or services. Other data and services may additionally be used in addition to Copernicus data;

(k)	facilitate inter-modality	–	take into account the coordination of various modes of transport, where appropriate, when deploying ITS;
(l)	respect coherence	–	take into account existing Union rules, policies and activities which are relevant in the field of ITS, in particular in the field of standardisation and, for specifications, the principle of technological neutrality as laid down in Directive 2018/1972;
(m)	deliver transparency and trust	–	deliver transparency, for instance by ensuring transparency of ranking when proposing mobility options to the customers.

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ANNEX III

List of data types

<p>1. Relating to the provision of EU-wide road traffic information and navigation services (as referred to in Annex I, Priority area I, paragraphs 1.2, 1.3):</p>
<p>1.1. Static and dynamic traffic regulations, where applicable, concerning the following data types:</p> <p>Data types:</p> <ul style="list-style-type: none">- access conditions for tunnels- access conditions for bridges- speed limits- freight delivery regulations- overtaking bans on heavy goods vehicles- direction of travel on reversible lanesweight/length/width/height restrictions⁴⁸ <p>one-way streets⁴⁹</p>
<p>- traffic circulations plans</p>
<p>- permanent access restrictions</p> <p>boundaries of restrictions, prohibitions or obligations with zonal validity, current access status and conditions for circulation in regulated traffic zones⁵⁰</p>

⁴⁸ Note: Addition resulting from Commission Delegated Regulation (EU) 2022/670 (EU-wide real-time traffic information services).

⁴⁹ See previous footnote.

⁵⁰ See previous footnote.

1.2. Data on the state of the network
<p><u>Data types:</u></p> <ul style="list-style-type: none"> - road closures - lane closures - roadworks <p>- temporary traffic management measures</p>
2. Data relating to information and reservation services for safe and secure parking places for trucks and commercial vehicles (as referred to in Annex I, Priority area III, paragraph 3.2) :
<p>Data types:</p> <ul style="list-style-type: none"> - static data related to the parking areas - information on safety and equipment of the parking area <p>- dynamic data on availability of parking places including whether a parking is: full, closed or number of free places available.</p>
3. Data on detected road safety-related events or conditions relating to road safety-related minimum universal traffic information (as referred to in Annex I, Priority area III, paragraph 3.3) :
<p>Data types:</p> <ul style="list-style-type: none"> - temporary slippery road - animal, people, obstacles, debris on the road - unprotected accident area - short-term road works - reduced visibility - wrong-way driver - unmanaged blockage of a road <p>- exceptional weather conditions</p>

4. Static multimodal traffic data for EU-wide multimodal travel information services (as referred to in Annex I, Priority area I, paragraphs 1.1 and 1.3) :

Data types:

Location of identified access nodes for all scheduled modes, including information on accessibility of access nodes and paths within an interchange (such as existence of lifts, escalators)

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ANNEX IV

List of ITS services

Road safety-related minimum universal traffic information (SRTI) service as referred to in Annex I, priority area III, paragraph 3.3

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