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COMMISSION DELEGATED REGULATION (EU) .../...

of 13.3.2019

**supplementing Directive 2010/40/EU of the European Parliament and of the Council
with regard to the deployment and operational use of cooperative intelligent transport
systems**

(Text with EEA relevance)

{SEC(2019) 100 final} - {SWD(2019) 95 final} - {SWD(2019) 96 final}

EXPLANATORY MEMORANDUM

1. POLICY CONTEXT

The increasing volume of road transport in the European Union poses several challenges. Road transport is responsible for most emissions of greenhouse gases and air pollutants from the transport sector as a whole. While road safety has improved in the EU over the past few decades, this trend has slowed down recently and it is unlikely that the EU will achieve its objective of a 50 % reduction in fatalities between 2010 and 2020. In addition, congested roads incur huge costs to the EU economy. Coordinated action across a number of fronts is required to tackle these issues and prevent them from bringing serious harm to Europe's people, economy, environment and climate.

New technologies aimed at improving the efficiency, safety and environmental performance of road transport are playing a significant role in achieving the Commission's goals in this area. One emerging field is that of cooperative intelligent transport systems (C-ITS), which enable vehicles to interact directly with each other and the surrounding road infrastructure. In road transport, C-ITS typically involves vehicle-to-vehicle (V2V), vehicle-to-infrastructure (V2I) and/or infrastructure-to-infrastructure (I2I) communication, and communication between vehicles and pedestrians or cyclists ('vehicle-to-everything', V2X). This enables a wide range of information and cooperation services.

C-ITS are a category of ITS services, based on an open network that enables a many-to-many or peer-to-peer relationship between C-ITS stations. This means all C-ITS stations, as defined by this Regulation, can securely exchange messages with each other, and are not limited to exchanging messages with (a single) pre-defined station(s). ITS services which provide similar information, for instance over digital broadcast, cellular networks, or FM radio, but without the characteristics of an open network that enables a many-to-many or peer-to-peer relationship between C-ITS stations, are outside the scope of this Regulation.

The benefits of C-ITS span a range of areas and include better road safety, less congestion, greater transport efficiency, mobility and service reliability, reduced energy use, fewer negative environmental impacts, and support for economic development. At the same time, care must be taken to avoid potential negative effects, e.g. increased traffic demand because of these improvements, drivers experiencing information overload, or the additional data sharing leading to greater cyber-security or privacy risks.

The past decade has seen remarkable new developments in technologies that facilitate C-ITS. Despite the potential benefits, however, these have not yet led to large-scale deployment. In 2011, EU vehicle manufacturers united in the CAR2CAR Communication Consortium issued a joint memorandum of understanding declaring their intention to start large-scale deployment by 2015, as the systems would be technologically ready by then. However, it became clear that this would not be possible unless the main stakeholders followed a common approach on both technical and non-technical aspects.

In 2014, the Commission responded by creating a platform for the deployment of cooperative intelligent transport systems in the EU (C-ITS platform), an expert group in which national authorities, C-ITS stakeholders and the Commission could work together on a shared vision and concrete implementation solutions for the interoperable deployment of C-ITS in the EU. The results of the extensive work of the platform and its working groups were summarised in the final reports¹ for phase I (2014-2016) and phase II (2016-2017).

¹ https://ec.europa.eu/transport/themes/its/c-its_en

Through the C-Roads platform², a joint initiative of European Member States and road operators for testing and implementing C-ITS services in light of cross-border harmonisation and interoperability, and significant investments at national and EU level (EUR 199 million, of which EUR 107 million was co-funded through the Connecting Europe Facility), 16 Member States have worked together with the industry to harmonise V2I C-ITS services and make them interoperable so that, for example, messages about roadworks can be understood consistently across different geographical environments and vehicle manufacturers. This has been the result of cooperation between the C-Roads platform and the CAR 2 CAR Communication Consortium, which has improved consistency in V2V and V2I messages and systems.

In 2016, automotive and telecommunication companies came together in the 5G Automotive Association on technology for connected and automated mobility including for C-ITS services. This has resulted in a situation where two technologies exist for short-range communication, at different levels of maturity and commercialisation, which are not interoperable at radio access level.

The work of the C-ITS platform was an essential input in the context of the European strategy on C-ITS³, which aimed to facilitate the convergence of investments and regulatory frameworks across the EU so that deployment could start as quickly as possible and, in particular, mature safety-related C-ITS services could be deployed from 2019. The strategy identified the need to adopt an appropriate legal framework at EU level by 2018, possibly through delegated acts under Directive 2010/40/EU (the Intelligent Transport Systems (ITS) Directive)⁴ or other legal instruments.

The purpose of this Delegated Regulation supplementing Directive 2010/40/EU of the European Parliament and of the Council is to create the minimal legal requirements for interoperability for C-ITS and to enable large-scale deployment of C-ITS systems and services from 2019. Directive 2010/40/EU (the ITS Directive) represents a policy and legal framework to accelerate the deployment of innovative transport solutions across Europe. The Directive focuses on intelligent transport systems for road and its interface with other modes of transport and empowers the Commission to adopt delegated acts in four priority areas. The definition of specifications for C-ITS is part of priority area IV of the Directive.

The focus of this Delegated Regulation is on ‘day 1’ services, i.e. C-ITS services to be deployed in the short term that will contribute particularly to road safety and traffic efficiency. Specifications and standards for interoperable priority ‘day 1’ services, and a common security solution are now available as a result of cooperation between a broad group of industry stakeholders and Member States’ authorities.

2. LEGAL BASIS, SUBSIDIARITY AND PROPORTIONALITY

2.1. Legal basis

This delegated act supplements Directive 2010/40/EU in compliance with its Article 7. A Regulation is the most appropriate legal instrument, as it does not call for national

² <https://www.c-roads.eu>

³ Commission Communication to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on *A European strategy on cooperative intelligent transport systems, a milestone towards cooperative, connected and automated mobility* (COM/2016/0766 final).

⁴ 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).

transposition measures and so ensures a greater degree of harmonisation, less administrative burden for the Member States, more legal certainty for public and private stakeholders and a swift entry into force.

2.2. Subsidiarity and proportionality

According to the principle of subsidiarity (Article 5(3) of the Treaty on European Union), EU-level action should be taken only where the envisaged aims cannot be achieved satisfactorily by Member States acting alone and can therefore, in view of the scale or effects of the proposed action, be better achieved by the EU.

While C-ITS services are already being deployed through projects across the EU and several Member States and many vehicle manufacturers have indicated that they intend to move to large-scale deployment, many have argued that a legal framework is needed at EU level. Industry-led standardisation through the European standardisation organisations (ESOs) contributes to interoperability, but it is voluntary and can allow for divergent, non-interoperable forms of implementation. With many different stakeholders and strong network effects, no stakeholder can introduce an interoperable solution on its own. Similarly, setting rules at national level would probably hinder the provision of continuous C-ITS services in the single European transport area.

Compatibility between infrastructure and vehicle solutions will need to be assured across the EU in order to reap the full benefits of C-ITS. In addition, a more harmonised approach at EU level is needed to ensure effective synergies with the deployment of new safety technologies and the roll-out of cooperative connected and automated mobility (CCAM) across the EU. Without an inclusive and future-proof EU-level framework, deployment would probably remain fragmented, uncoordinated and incapable of ensuring the geographical continuity of C-ITS services throughout the EU and at its external borders.

Compliance with this Delegated Regulation would be mandatory only where C-ITS services or stations were deployed. While binding EU specifications do require existing C-ITS stations and new technological solutions to adapt to these specifications, such specifications are essential to ensure the EU-wide interoperability of C-ITS services, and the planned review allows for flexibility in the development of technological solutions. A Regulation is more stringent than a guideline or a recommendation, but the expected direct and indirect benefits are also proportionally higher. In that sense, this delegated act is proportional.

Another important effect of this Delegated Regulation is to ensure the authenticity and integrity of messages exchanged between C-ITS stations. This should make it possible to assess the trustworthiness of such information. At the same time, the impact on the privacy of road users should be minimised. Accordingly, the C-ITS platform has developed a security architecture supported by a public key infrastructure (PKI) using frequently changing pseudonym certificates. The resulting common security and certificate policy has been the subject of broad consultation and been agreed upon by all stakeholders concerned.

2.3. Fundamental rights

The right to the protection of personal data is guaranteed under Article 8 of the Charter of Fundamental Rights of the European Union. Where the measures provided for in this Regulation entail the processing of personal data, they must be carried out in accordance with EU law on the protection of personal data, in particular the General Data Protection Regulation (GDPR)⁵ and the e-Privacy Directive⁶.

⁵ 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

On 10 July 2017, as part of its preparatory work, the Commission services consulted the technology subgroup of the Article 29 working party established under the Data Protection Directive⁷. The subgroup's opinion (October 2017) pointed to a number of actions required to support the lawful processing of personal data in the field of C-ITS. It was further clarified that, as this Regulation covers only the exchange of messages between C-ITS stations, it cannot by itself create a legal basis for the lawful processing of data. As a result, the obligations on data controllers and data processors remain fully applicable. However, this Regulation clarifies that without an appropriate, specific lawful basis, the personal data collected should not be (re)used, either for commercial purposes or as a new resource for law enforcement. Moreover, information relating to an identified or identifiable natural person should be processed in strict compliance with the principle of data minimisation and only for the purposes cited in this Regulation, and not stored longer than necessary. Finally, end-users should be informed clearly and in a comprehensive manner about the collection of data, and the arrangements for the periods during which it is kept.

3. RESULTS OF EX-POST EVALUATIONS AND IMPACT ASSESSMENTS

• Ex-post evaluations/fitness checks of existing legislation

As there is no existing legislation in this area, no ex-post evaluation needed to be carried out.

• Collection and use of expertise

The Commission used the final reports of the C-ITS Platform Phases I and II. In addition, the Commission sought external expertise through a contract for an impact assessment support study with RICARDO Energy & Environment, supported by TRT and TEPR, which was launched in September 2017 and concluded in December 2018.

• Impact Assessment

The initiative is supported by an impact assessment which received a positive opinion with reservations after having been reviewed on 10 October 2018 by the Regulatory Scrutiny Board (RSB). The reservations of the RSB concerned two main aspects:

- The RSB was of the opinion that the report did not make sufficiently clear the need for a step-wise approach to reach the objectives of the initiative. As a result, the choice of the preferred option did not clearly flow from the analysis and presentation of the report.
- The RSB also considered that the report did not explain why it did not (yet) address stakeholder concerns on the safety of vulnerable road users and environmental impacts.

The following additions were made in the final impact assessment to address these reservations:

- The distinction between the different policy options and the considerations behind them have been reviewed and clarified throughout the Impact Assessment, in

such data, and repealing Directive 95/46/EC (General Data Protection Regulation) (OJ L 119, 4.5.2016, p. 1).

⁶ 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).

⁷ Directive 95/46/EC of the European Parliament and of the Council of 24 October 1995 on the protection of individuals with regard to the processing of personal data and on the free movement of such data (Data Protection Directive) (OJ L281, 23.11.1995, p.31).

particular in sections 5.3, 7 and 8. The need for a separate impact assessment for potential follow-up legislative measures, including a V2V mandate, is explicitly discussed.

- The impact of C-ITS on vulnerable road users (VRUs) has been further clarified in section 6.1 and 6.5. It was underlined that VRU specific C-ITS services are not yet mature to be included in specifications and thus the policy options considered in this impact assessment. The stakeholder concerns have been described in more detail in Annex 2.
- Regarding the impacts, the sensitivity analysis in section 6.5 has been expanded to all policy options, and adjustments have been made throughout the report to better differentiate the policy options. Section 2 of Annex 4 has been updated to reflect that day 1 services have a strong focus on safety and to further clarify the limitations of the analysis.
- Section 6.4 has been added to discuss the data protection impacts of the different policy options. Annex 6 has also been updated in this regard.

The impact assessment examined three broad policy options:

PO1: Light intervention based on non-legislative measures, including non-binding guidelines on the interoperability of ‘day 1’ services, secure communication, data protection and compliance assessment;

PO2: Moderate intervention based on specifications under the ITS Directive. This would include elements similar to those in PO1, but make them legally binding through a Delegated Regulation. Nevertheless, Member States and industry remain free to decide whether or not to deploy C-ITS;

PO3: Strong intervention based on a vehicle-to-vehicle (V2V) mandate and the setting up of governance bodies. This option builds further on the legally binding specifications in a stepwise approach, by ensuring that all new vehicles are equipped with C-ITS stations, drastically increasing the uptake rate and thus meeting the threshold for effective service delivery (related to the network effect) much quicker. PO3 includes additional measures that support the deployment of C-ITS and cannot be introduced through a delegated act alone:

- a legislative measure can provide a legal basis for the lawful processing of personal data relating to C-ITS. This would increase legal certainty and probably result in the provision of more C-ITS services; and
- assigning governance roles to legal bodies will further ensure coordination and oversight on C-ITS deployment, thus ensuring that barriers to C-ITS uptake are reduced to a minimum.

The preferred approach is PO3 – a stepwise approach as provided for in the ITS Directive, where, after the adoption of specifications, a separate initiative for deployment will be considered, further analysing the efficiency and proportionality of a mandate based on the continued development of the C-ITS sector. This policy option is considered to most coherent and effective, delivering the highest reductions in accidents, congestion and CO₂ emissions.

The expected impacts are as follows:

- The main benefits are a reduction of accidents and fuel costs, and travel time savings. In addition, there is a slight reduction in the external costs of CO₂ emissions and air pollutants. Total monetised benefits come to EUR 78.9 billion over the period 2020-

2035. This figure would rise to EUR 128.9 billion with the introduction of a V2V mandate.

- The main costs relate to C-ITS equipment in vehicles and in roadside infrastructure. Other compliance and administrative costs are assessed, but considered minor compared to the overall costs. Total monetised costs amount to EUR 19.1 billion relative over the period 2020-2035, or EUR 32.3 billion with the introduction of a V2V mandate. Thus the expected benefits strongly outweigh the expected costs.
- Although 90 % of the costs relate to equipping vehicle fleets, the cost of equipping infrastructure will largely be borne by the public sector. However, Member States remain free to decide whether or not to deploy.

4. RESULTS OF CONSULTATIONS

4.1. Meetings with experts nominated by Member States

Developing rules and requirements at EU level to support the deployment of C-ITS systems and services, and in particular the interoperability and continuity of EU-wide V2V and V2I services, required close cooperation between stakeholders (manufacturers, service providers and competent authorities). EU Member States and the EFTA countries were asked to nominate experts to attend a series of 13 meetings with the Commission services in Brussels between 23 May 2017 and 3 October 2018 to help produce the draft Regulation. Experts from the European Parliament were also invited to take part and the Commission held a number of bilateral meetings with Member States.

4.2. Stakeholder consultation

A public consultation was open on the Commission's website from 10 October 2017 to 12 January 2018 (13 weeks) receiving 139 responses. The public consultation was based on a questionnaire exploring stakeholders' opinions on the key components of the impact assessment: the main problem, its drivers, possible policy measures and their likely impacts, and the relevance of EU-level action.

A number of case studies were carried out as part of a support study:

- nine on EU C-ITS deployment projects; and
- three on C-ITS deployment in other countries (the United States, Australia and Japan); these involved interviews with senior representatives between October 2017 and February 2018.

All case studies focused on the following aspects of C-ITS deployment: objectives, progress, barriers, data collection and costs in the area concerned. In the EU case studies, respondents were also asked to provide feedback on the problem definition, policy measures and options, and the monitoring and evaluation of this policy initiative.

A stakeholder workshop was held on 9 February 2018 to gather specific information/data and experts' and stakeholders' views and suggestions. The workshop was well attended, with more than 140 participants.

On 6 September 2018 and 29 January 2019, the Commission presented the objective and scope of the Regulation to the members of the Transport and Tourism Committee.

The draft of the Regulation has been subject to a public consultation through the Better Regulation Portal from 11 January 2019 to 8 February 2019, receiving 100 responses.

4.3. C-ITS communication technologies

A particular important issue for C-ITS are the communication technologies that can be used for exchanging messages between C-ITS stations. This is directly linked to the need to ensure that everybody is able to talk to everybody (interoperability) and that everybody remains able to talk to everybody (compatibility).

Maximising benefits involves leveraging the distinct advantages of different, complementary technologies. The ‘hybrid communication’ approach combines two types of technologies:

- short-range communication technologies, which operate in a dedicated 5.9 GHz frequency band and are most relevant for time-critical services. ITS-G5 was developed specifically for this purpose and is now mature, tested and already deployed; and
- longer-range communication technologies, which leverage the coverage of existing networks and connect large areas, albeit for less time-critical V2I services. Cellular 3G/4G are mature technologies that already provide good coverage in large parts of the EU.

The practical implementation of the hybrid communication approach, combined with the need to ensure the interoperability and continuity of services, imposes certain technological choices. These are reflected in a minimum set of functional and technical requirements for the interoperable exchange of messages between C-ITS stations. As this should not hinder further innovation, this Regulation ensures that future technologies can be integrated in the ‘hybrid communication’ mix.

A review clause will facilitate the integration of several existing candidates, such as LTE-V2X (a cellular-based short-range communication technology) and 5G, the set of technologies for next-generation cellular networks. The Commission will discuss possible amendments to this Delegated Regulation with an expert group in an open and transparent way and inform it regularly about the progress and possible next steps. Stakeholders that have already put C-ITS stations in service should cooperate in this process in good faith, in line with both Union and national competition laws, to ensure a level playing field between different technologies, and without hindering the development of new ones. In the interest of allowing future developments in this area, these stakeholders should also prepare their products for the integration of future technologies.

5. BUDGETARY IMPLICATIONS

This Regulation has some implications for the EU budget.

To ensure that the C-ITS network functions smoothly, certain tasks need to be carried out by central entities before the full governance framework can be established. Pending the establishment of such entities, the Commission will perform some of the tasks – mainly those relating to the EU C-ITS security credential management system, the EU’s C-ITS framework for the provision of trusted and secure communication on the basis of a PKI.

It is important to ensure that C-ITS stations can be enrolled in the security credential management system before being put in service and becoming operational. To this end, the tasks of the central point of contact, the trust list manager and the C-ITS certificate policy authority will be assumed by the Commission, as a shared task of JRC and DG MOVE.

This will have no impact in terms of human resources, as JRC and DG MOVE will use or redeploy staff as necessary. Also, JRC benefits from the ‘Security architecture for connected infrastructure and vehicles in Europe’ support action in the context of Commission

Implementing Decision C(2016) 1966⁸, which assigns EUR 4 million for the implementation of phase I of the security credential management system (2018-2021). Should further support actions be needed, they could be financed under the Connecting Europe Facility.

⁸ Commission Implementing Decision of 7 April 2016 amending Commission Implementing Decision C(2014) 1921 establishing a Multi-Annual Work Programme 2014-2020 for financial assistance in the field of Connecting Europe Facility (CEF) - Transport sector for the period 2014-2020.

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supplementing Directive 2010/40/EU of the European Parliament and of the Council with regard to the deployment and operational use of cooperative intelligent transport systems

(Text with EEA relevance)

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to 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 transport¹, and in particular Article 6(3) in conjunction with Article 7 thereof,

Whereas:

- (1) Article 2(1) of Directive 2010/40/EU identifies the linking of the vehicle with the transport infrastructure as priority area IV for the development and use of specifications and standards. This involves inter alia developing and implementing cooperative (vehicle-vehicle, vehicle-infrastructure, where messages can originate both in the vehicle and or in the infrastructure, and infrastructure-infrastructure) systems based on: the facilitation of the exchange of data or information between vehicles, between infrastructures and between vehicles and infrastructure; the use of a standardised message format for the exchange of data or information between vehicles and infrastructure; and the definition of a communication infrastructure for data or information exchange between vehicles, between infrastructures and between vehicles and infrastructure.
- (2) Cooperative intelligent transport systems (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 network that enables a many-to-many or peer-to-peer relationship between C-ITS stations. This means all C-ITS stations, as defined by this Regulation, can securely exchange messages with each other, and are not limited to exchanging messages with (a single) pre-defined station(s). C-ITS stations do not need additional requirements such as: using the same software or having an account or contractual relationship with the same entity (e.g. the same vehicle manufacturer, road authority or service provider).
- (3) The European C-ITS strategy² identified a risk of fragmentation of the internal market in the field of C-ITS and a need to lay down minimum requirements for C-ITS services to ensure their coordinated and coherent deployment. In this context, the

¹ OJ L 207, 6.8.2010, p. 1.

² Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on *A European strategy on Cooperative Intelligent Transport Systems, a milestone towards cooperative, connected and automated mobility* (COM(2016) 766 final).

Commission announced its intention, where appropriate, to make use of its mandate under Directive 2010/40/EU to adopt delegated act(s) by 2018 to ensure compatibility, interoperability and continuity of C-ITS services in the deployment and operational use of Union-wide C-ITS services based on trusted and secure communication.

- (4) In order to foster and maximise all road safety and traffic efficiency benefits of C-ITS services, the specifications set out in this Regulation should apply to the entire road transport network. This includes its interfaces with other transport modes that are relevant to road safety or traffic efficiency, such as rail crossings, port areas, etc.
- (5) The specifications laid down in this Regulation should apply to all C-ITS services without prejudice to particular specifications adopted in other acts under Directive 2010/40/EU, in particular Commission Delegated Regulations (EU) No 886/2013³ and (EU) No 962/2015⁴.
- (6) Directive (EU) 2016/1148 of the European Parliament and of the Council of 6 July 2016⁵ concerning measures for a high common level of security of network and information systems across the Union (the "NIS Directive") puts in place requirements concerning national capabilities in the area of cybersecurity, establishes mechanisms to enhance strategic and operational cooperation between Member States, and introduces obligations concerning security measures and incident notifications across sectors. As the NIS Directive listed operators of Intelligent Transport Systems as defined in paragraph 1 of Article 4 of Directive 2010/40/EU as potential operators of essential services, the application of the NIS Directive and of the requirements imposed pursuant to the present Regulation may be in certain cases complementary.
- (7) Commission Decision 2008/671/EC⁶ harmonises the conditions for the availability and efficient use of the 5 875-5 905 MHz frequency band for safety-related applications of ITS in the Union.
- (8) In response to standardisation mandate M/453⁷, the European standardisation organisations (ESOs) – the European Telecommunications Standards Institute (ETSI) and the European Committee for Standardisation (CEN) – have developed common standards for the deployment of C-ITS services, to which this Regulation refers. Those standards provide a basis for the effective provision of C-ITS priority services, enabling road traffic managers to take appropriate measures and preparing the ground for safer automation on EU roads. Standardisation work will continue, amongst others to integrate other technologies and further strengthen C-ITS. The relevant standardisation bodies and all stakeholders should therefore continue the work developed under standardisation mandate M/453 and jointly develop solutions that support interoperability and allow all technologies to play their role.

³ 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).

⁴ 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).

⁵ OJ L 194, 19.7.2016, p. 1.

⁶ Commission Decision 2008/671/EC of 5 August 2008 on the harmonised use of radio spectrum in the 5 875-5 905 MHz frequency band for safety-related applications of Intelligent Transport Systems (ITS) (OJ L 220, 15.8.2008, p. 24).

⁷ M/453: Standardisation mandate addressed to CEN, CENELEC and ETSI in the field of information and communication technologies to support the interoperability of co-operative systems for intelligent transport in the European Community

- (9) To ensure interoperability, each C-ITS station requires a specific configuration of standards ('system profile') determining the implementation of various optional standards. The system profile describes external interfaces needed for communication between C-ITS stations. Each C-ITS station must comply with Directive 2014/53/EU of the European Parliament and of the Council⁸. Cooperation between industry and Member States' authorities has led to the development of harmonised system profiles for vehicle C-ITS stations and roadside C-ITS stations communicating in the 5 855-5 925 MHz frequency band. If all C-ITS services are to be received seamlessly across the Union, a 'hybrid communication' approach is needed, i.e. one that combines complementary communication technologies. In view of the pace of technological progress, industry and Member States are encouraged to develop – and harmonise across the Union – additional complementary and compatible system profiles for other types of C-ITS stations and technologies. Before using such new profiles or technologies, they should inform the Commission so that an update of this Regulation can be considered without delay. Such updates should be prepared in close cooperation with the Member States.
- (10) The cooperative nature of C-ITS requires each C-ITS station to contribute information to the C-ITS network. C-ITS stations should not interfere with the provision of C-ITS priority services, European electronic toll services or the smart tachograph, nor with the functioning of other C-ITS stations.
- (11) It is important that industry and Member States implement common technical solutions for the provision of C-ITS services. These should be developed in particular through the ESOs, in order to facilitate the introduction of C-ITS services, ensure the interoperability and continuity of the services throughout the Union, and reduce the costs of implementation. To ensure the compatibility, interoperability and continuity of Union-wide C-ITS services, the standards and system profiles referred to in this Regulation should be used where relevant as a reference for the development of future C-ITS technologies and services.
- (12) As regards deployment, priority should be given to C-ITS services that contribute to road safety and traffic efficiency. Those that constitute road-safety-related minimum universal traffic information services, as defined in Delegated Regulation (EU) No 886/2013, should where possible be provided as a universal service free of charge to end-users at the point of use in accordance with that Regulation.
- (13) To ensure interoperability, each C-ITS service requires a specific configuration of standards, called a service profile, defining the implementation of various options of standards. C-ITS services should not interfere with the provision of the C-ITS priority services. The current vehicle-vehicle service profiles have been developed primarily for passenger cars. To enable the deployment of these or similar services for other vehicle categories, the development of additional service profiles, or an update of the service profiles in this Regulation, might be required.
- (14) Decision No 768/2008/EC of the European Parliament and of the Council⁹ lays down common principles and reference provisions to apply across sectoral legislation. It

⁸ Directive 2014/53/EU of the European Parliament and of the Council of 16 April 2014 on the harmonisation of the laws of the Member States relating to the making available on the market of radio equipment and repealing Directive 1999/5/EC (OJ L 153, 22.5.2014, p. 62).

⁹ 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).

therefore constitutes a general horizontal framework for any new legislation harmonising the conditions for the marketing of products. Its reference provisions provide definitions and general obligations for economic operators and a range of conformity assessment procedures from which the legislator can select as appropriate. In order to ensure the safety of the market place, it also lays down rules for CE marking and reference provisions on procedures for dealing with products presenting a risk. As this Regulation covers the placing on the market of C-ITS stations, it is appropriate to use reference provisions in Annex I to that Decision that make the manufacturer responsible for ensuring inter alia compliance with all applicable legislation; that an EU declaration of conformity is drawn up; that the conformity marking is affixed and that appropriate technical documentation is prepared. The roles and responsibilities of other entities, such as the authorised representative, the importer and the distributor, should also be regulated.

- (15) In this Regulation, C-ITS stations installed on vehicles, handheld or alongside the road infrastructure are considered as products that can be placed on the market as stand-alone assemblies or as parts of larger assemblies. The extent to which C-ITS stations to be installed on vehicles comply with the applicable requirements can be tested before or after installation. In the case of roadside C-ITS stations, this can be tested before installation, so they can be placed on the market as stand-alone products. With central C-ITS stations, the situation may be different, because they will often be integrated in traffic control centres that are not standardised. As such traffic control centres are constructed gradually in line with the development of the traffic areas they manage, it may be that they cannot be fully tested before being placed on the market. In any case, the level of security and trust should be the same for all C-ITS stations, including central ones.
- (16) Before any C-ITS station is put in service and becomes operational, it is necessary to identify the entity that will check that it is accompanied by an EU declaration of conformity and, where applicable, that conformity marking has been affixed. This entity should register the station in the EU C-ITS security credential management system and ensure that it continues to comply with the technical requirements throughout the period of its use. The entity will be the operator of the C-ITS station and be in charge of relations with the user.
- (17) For many C-ITS services, it is essential to ensure 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 established for all C-ITS stations (all mobile C-ITS stations, same requirements for vehicle and personal, and all fixed C-ITS stations, same requirements for central and roadside), regardless of communication technologies used. The rules and requirements of this trust model are laid down in the certificate and security policy. The highest level of the Public Key Infrastructure (PKI) is the European certificate trust list, which contains entries of all trusted root certification authorities in Europe.
- (18) Some efforts have been made in the past in order to lead to a mutual recognition of security certificates of products in Europe. The most important example in this regard is the Senior Officials Group – Information Systems Security (SOG-IS) Mutual Recognition Agreement (MRA). While it represents the most important model for cooperation and mutual recognition in the field of security certification, SOG-IS includes only part of the Member States of the Union. As security certification of C-ITS stations is an important element of the C-ITS certificate and security policy, the

SOG-IS MRA is applied in the absence of other equivalent European cybersecurity certification schemes under the relevant European cybersecurity framework.

- (19) Certain C-ITS stations placed on the market before the date of application of this Regulation, might not fully comply with C-ITS security related requirements of this Regulation, because technical deployment decisions might have already been taken at an earlier moment in time. To allow such C-ITS stations to become part of the C-ITS network after the date of application of this Regulation, a procedure should be provided to consider granting enrolment of such C-ITS stations in the C-ITS trust model.
- (20) Article 6(6) of the Directive 2010/40/EU requires the Commission to adopt specifications complying with a set of principles, including the use of satellite-based infrastructures, or any technology providing equivalent levels of precision for the purposes of ITS applications and services that require global, continuous, accurate and guaranteed timing and positioning services. Therefore, it is appropriate to ensure the compatibility of C-ITS stations with the added value services provided by the Galileo and the European Geostationary Navigation Overlay Service ('EGNOS') programmes as set out in Regulation (EU) No 1285/2013 of the European Parliament and of the Council in order to improve the reliability of the C-ITS stations.
- (21) The platform for the deployment of C-ITS in the Union (C-ITS platform), which was set up in November 2014 and chaired by Commission departments, developed a common security and certificate policy, endorsed by all interested stakeholders. As the common security and certificate policy should be updated in line with technical progress and the development of the governance framework, the Commission should be reviewing this Regulation on an ongoing basis in order to maintain coherence and consistency.
- (22) To ensure the smooth functioning of the C-ITS network, certain tasks need to be carried out by central entities before the full governance framework can be established. Pending the establishment of central entities, the Commission should be in charge of those tasks, including those relating to the C-ITS certificate policy authority, the trust list manager, and the C-ITS point of contact.
- (23) Where the measures provided for in this Regulation entail the processing of personal data, they should be carried out in accordance with Union law on the protection of personal data and privacy, in particular Regulation (EU) 2016/679¹⁰, and, where applicable, Directive 2002/58/EC¹¹. Such processing should have an appropriate legal basis, as listed in Article 6 of Regulation (EU) 2016/679, which is not provided for by this Delegated Regulation.
- (24) Without an appropriate legal basis, the personal data collected should not be reused for any other purposes, such as commercial purposes or as a new resource for law enforcement, unless on the basis of a law.
- (25) Information relating to an identified or identifiable natural person should be processed in strict compliance with the principle of data minimisation and only for the purposes

¹⁰ 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 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).

specified in this Regulation, and not stored longer than necessary. Security requirements on pseudonymisation that are provided for in this Regulation, contribute to reduce the risk of data misuse.

- (26) End-users should be informed clearly and in a comprehensive manner on all relevant information on the processing of their personal data in accordance with Regulation (EU) 2016/679.
- (27) As stated in the common security and certificate policy, developed within the context of the C-ITS platform, governance requires bodies in the form of common steering committees of stakeholders, including the Commission, Member States, road infrastructure operators, and C-ITS station manufacturers and operators. Pending the establishment of such bodies, the Commission, assisted by an expert group in which all relevant stakeholders are represented, should be in charge of the relevant tasks, including those relating to governance, supervision and the C-ITS certificate policy authority. This expert group should include in particular representatives of C-ITS station manufacturers and operators in the C-ITS network, as well as other concerned stakeholders and relevant authorities of the Member States.
- (28) The broad and inclusive consultation process that led to the development of the security policy and governance framework and the certificate policy (with the support of all relevant public and private stakeholders) should also apply to the updating of this Regulation in line with technical progress and, where appropriate, with the development of the governance framework.
- (29) Member States and root certification authorities should regularly provide the Commission with information enabling it to monitor the implementation of this Regulation.
- (30) In order to take account of the rapid development of new markets, technologies and services, as already announced in the updated working programme of the ITS Directive, it is expected that this Regulation will be amended before the review of the implementation of this Regulation, which should be conducted three years following after its entry into force.

Prime candidate for such an amendment is the inclusion of existing 3G/4G networks to deliver the C-ITS priority services. In addition, specifications for LTE-V2X technologies have been finalised in 3GPP and prototype implementations are currently being validated. These technologies are currently being integrated into European norms and technical specifications, both for C-ITS priority services and for new emerging services. Finally, rapidly evolving new technologies such as 5G could also underpin C-ITS services.

Some of these developments could trigger one or more amendments of this Regulation, once a file with technically mature specifications is transmitted to the Commission. Such amendments should ensure an open and future-proof approach in standards and legislation. The Commission should consult an expert group on possible amendments to this Regulation in an open and transparent way and inform it regularly about the progress and possible next steps. To maintain the continuity of the C-ITS priority services, they should also ensure compatibility and interoperability with existing C-ITS stations, already put in service in accordance with this Regulation, or specify a suitable migration path taking into account also market and technology developments.

The Commission should analyse the file, and discuss it in the expert group without undue delay, in view of a possible amendment of this Regulation, examining whether a change to existing requirements is needed. Stakeholders that have already put C-ITS stations in service should cooperate in this process in good faith, in line with both Union and national competition laws, to ensure a level playing field between different technologies, and without hindering the development of new ones. In the interest of allowing future developments in this area, these stakeholders should also prepare their products for the integration of future technologies.

- (31) The European Data Protection Supervisor was consulted in accordance with Article 28(2) of Regulation (EC) No 45/2001 of the European Parliament and of the Council¹² and delivered an opinion on ... ,

HAS ADOPTED THIS REGULATION:

CHAPTER I

GENERAL PROVISIONS

Article 1

Subject matter and scope

1. This Regulation establishes specifications necessary to ensure compatibility, interoperability and continuity in the deployment and operational use of Union-wide C-ITS services based on trusted and secure communication.
It lays down how vehicle-vehicle, vehicle-infrastructure and infrastructure-infrastructure communication is to be conducted by means of C-ITS stations and how C-ITS stations are to be placed on the market and put in service, to enable the provision of C-ITS services to ITS users.
2. This Regulation applies to all C-ITS stations in the field of road transport and to their interfaces with other modes of transport.
3. The deployment of C-ITS stations is carried out in accordance with Article 5 of Directive 2010/40/EU. Member States shall designate the part of their transport network infrastructure that is equipped with C-ITS stations.

Article 2

Definitions

For the purposes of this Regulation, the following definitions shall apply:

- (1) ‘cooperative intelligent transport systems’ or ‘C-ITS’ means intelligent transport systems that enable ITS users to cooperate by exchanging secured and trusted messages using the EU C-ITS security credential management system;
- (2) ‘C-ITS service’ means an ITS service provided through C-ITS;

¹² Regulation (EC) No 45/2001 of the European Parliament and of the Council of 18 December 2000 on the protection of individuals with regard to the processing of personal data by the Community institutions and bodies and on the free movement of such data (OJ L 8, 12.1.2001, p.1).

- (3) 'C-ITS station' means the set of hardware and software components required to collect, store, process, receive and transmit secured and trusted messages in order to enable the provision of a C-ITS service. This includes personal, central, vehicle and roadside ITS stations as defined in EN 302 665 v 1.1.1;
- (4) 'mobile C-ITS station' means a C-ITS station installed in a vehicle or in the form of a personal hand-held device;
- (5) 'fixed C-ITS station' means a C-ITS station installed in a central system or roadside infrastructure;
- (6) 'central C-ITS station' means a central server with integrated C-ITS station capabilities, such as in a traffic management centre;
- (7) 'making available on the market' means the supply of a C-ITS station for distribution or use on the Union market in the context of a commercial activity, either in return for payment or free of charge;
- (8) 'placing on the market' means the first making available of a C-ITS station on the Union market;
- (9) the 'putting in service' of a C-ITS station means its first use in the Union for the purposes for which it was intended;
- (10) 'short-range communication' means communication in the 5 855-5 925 MHz frequency band;
- (11) 'C-ITS priority service' means a C-ITS service that contributes to road safety or traffic efficiency and which is included in Annex I;
- (12) 'system profile' means a minimum set of functional and technical requirements for the interoperable exchange of messages between C-ITS stations;
- (13) 'service profile' means a set of functional specifications for interoperable messages to enable the provision of a C-ITS service;
- (14) 'Global Navigation Satellite System' ('GNSS') means an infrastructure composed of a constellation of satellites and a network of ground stations, which provides accurate timing and geolocation information to users having an appropriate receiver.
- (15) 'manufacturer' means any natural or legal person that designs and manufactures a C-ITS station or has a C-ITS station designed or manufactured, and markets that C-ITS station under its name or trademark;
- (16) 'C-ITS station operator' means any natural or legal person who is responsible for the putting in service and the operation of C-ITS stations in accordance with this Regulation;
- (17) 'authorised representative' means any natural or legal person established in the Union that has received a written mandate from a manufacturer to act on its behalf in relation to specified tasks;
- (18) 'importer' means any natural or legal person established in the Union that places a C-ITS station from a third country on the Union market;
- (19) 'distributor' means any natural or legal person in the supply chain, other than the manufacturer or the importer, that makes a C-ITS station available on the market;
- (20) 'economic operator' means the manufacturer, authorised representative, importer or distributor;

- (21) 'recall' means any measure aimed at achieving the return of a C-ITS station that has already been made available to the end-user;
- (22) 'withdrawal' means any measure aimed at preventing a C-ITS station in the supply chain from being made available on the market;
- (23) 'CE marking' means a marking by which the manufacturer indicates that the product is in conformity with the applicable requirements set out in the Union legislation providing for its affixing;
- (24) 'end-user' means a natural or legal person who ultimately uses or is intended to ultimately use a C-ITS station;
- (25) 'market surveillance authority' means an authority of a Member State responsible for carrying out market surveillance on its territory;
- (26) 'competent national authority' means any authority that is entitled to check the conformity of a C-ITS station with the applicable legislation;
- (27) 'EU C-ITS security credential management system' means the European Union C-ITS framework for the provision of trusted and secure communication using a public key infrastructure (PKI);
- (28) 'enrolment authority' means the legal and/or operational entity that authenticates a C-ITS station and grants it access to C-ITS.
- (29) 'C-ITS network' means all operational C-ITS stations in the Union;

Article 3

Making available on the market and/or putting into service

A C-ITS station shall only be made available on the market and/or put into service if, where properly maintained and used for its intended purpose, it complies with this Regulation.

Article 4

Free movement

Member States shall not prohibit, restrict or impede, for the reasons covered by this Regulation, the making available on the market or the putting into service in their territory of C-ITS stations which comply with this Regulation.

CHAPTER II

TECHNICAL REQUIREMENTS

Article 5

Requirements for C-ITS stations

1. Vehicle C-ITS stations designed for short-range communication shall comply with the requirements laid down in the system profile in Section 2 of Annex II.
2. Roadside C-ITS stations designed for short-range communication shall comply with the requirements laid down in the system profile in Section 3 of Annex II.
3. C-ITS stations shall send messages that enable the provision of at least one of the C-ITS priority services listed in Annex I.

4. C-ITS stations shall be compatible with C-ITS stations that send messages for the C-ITS priority services listed in Annex I.
5. C-ITS stations shall not interfere with the operation of the European electronic toll service as referred to in Directive 2004/52/EC of the European Parliament and of the Council¹³ and in Commission Decision 2009/750/EC¹⁴ and the operation of the smart tachograph referred to in Regulation (EU) No 165/2014 of the European Parliament and of the Council¹⁵.
6. C-ITS stations shall be compatible with C-ITS stations that comply with the system profiles set out in Annex II.
7. When C-ITS stations are enabled with GNSS, they shall be compatible with the positioning and timing services provided by the Galileo and EGNOS systems. In addition, C-ITS stations may be compatible with other satellite navigation systems.

Article 6

Requirements for C-ITS services

1. The C-ITS priority services listed in Annex I shall comply with the requirements of the corresponding C-ITS service profile.
2. Each C-ITS service shall work without modification with all service profiles as set out in Annex I.

CHAPTER III

PLACING C-ITS STATIONS ON THE MARKET

Article 7

Obligations of C-ITS station manufacturers

1. When placing C-ITS stations on the market, manufacturers shall ensure that they have been designed and manufactured in accordance with the requirements set out in Article 5.
2. Manufacturers shall draw up the technical documentation referred to in Part A of Annex V and carry out the conformity assessment procedure referred to in Part A of Annex V or have it carried out.
3. Where compliance of a C-ITS station with the applicable requirements has been demonstrated by the conformity assessment procedure referred to in Part A of Annex V, manufacturers shall draw up an EU declaration of conformity and affix the CE marking.

¹³ Directive 2004/52/EC of the European Parliament and of the Council of 29 April 2004 on the interoperability of electronic road toll systems in the Community (OJ L 166, 30.4.2004, p. 124)

¹⁴ Commission Decision 2009/750/EC of 6 October 2009 on the definition of the European Electronic Toll Service and its technical elements (OJ L 268, 13.10.2009, p. 11)

¹⁵ Regulation (EU) No 165/2014 of the European Parliament and of the Council of 4 February 2014 on tachographs in road transport, repealing Council Regulation (EEC) No 3821/85 on recording equipment in road transport and amending Regulation (EC) No 561/2006 of the European Parliament and of the Council on the harmonisation of certain social legislation relating to road transport (OJ L 60, 28.2.2014, p. 1).

4. Manufacturers shall keep the technical documentation referred to in Part A of Annex V and the EU declaration of conformity for 10 years after the C-ITS station has been placed on the market.
5. Manufacturers shall ensure that procedures are in place for series production to remain in conformity with this Regulation.
6. To protect the health and safety of consumers, where deemed appropriate with regard to the risks presented by C-ITS stations, manufacturers shall:
 - (a) carry out sample testing of marketed C-ITS stations;
 - (b) investigate and, if necessary, keep a register of complaints, of non-conforming C-ITS stations and of C-ITS station recalls;
 - (c) keep distributors informed of any such monitoring.
7. Manufacturers shall ensure that C-ITS stations that they have placed on the market bear a type, batch or serial number or other element allowing their identification.
8. On the C-ITS station or, where that is not possible, on its packaging or in a document accompanying the C-ITS station, manufacturers shall indicate their:
 - (a) name;
 - (b) registered trade name or registered trademark;
 - (c) postal address, indicating a single point at which they can be contacted.

The contact details shall be in a language easily understood by both end-users and market surveillance authorities.
9. Manufacturers shall ensure that the C-ITS station is accompanied by instructions and safety information in a language that can be easily understood by end-users, as determined by the Member State concerned. Such instructions and safety information, and any labelling, shall be clear, understandable and intelligible.
10. Manufacturers that consider that a C-ITS station that they have placed on the market is not in conformity with this Regulation shall immediately take the necessary corrective measures to bring it into conformity, or to withdraw or recall it, as appropriate. Where the C-ITS station presents a risk, manufacturers shall immediately inform the market surveillance authorities of the Member States in which they have made it available, giving details, in particular, with regard to the non-compliance and any corrective measures taken.
11. On reasoned request from a competent national authority, manufacturers shall provide it with all information and documentation in paper or electronic form necessary to demonstrate the conformity of the C-ITS station, in a language which can be easily understood by that authority. They shall cooperate with that authority, at its request, on any action taken to eliminate the risks posed by C-ITS stations that they have placed on the market.

Article 8

Authorised representatives

1. A manufacturer may appoint an authorised representative by written mandate.

2. Authorised representatives shall perform the tasks specified in the mandate received from the manufacturer. The mandate shall allow the authorised representative to do at least the following:
 - (a) keep the EU declaration of conformity and the technical documentation at the disposal of national market surveillance authorities for 10 years after the C-ITS station has been placed on the market;
 - (b) on reasoned request from a competent national authority, provide it with all the information and documentation necessary to demonstrate the conformity of a C-ITS station;
 - (c) cooperate with the competent national authorities, at their request, on any action to eliminate the risks posed by C-ITS stations covered by their mandate.

The obligations laid down in Article 7(1) and the drawing up of technical documentation referred to in Article 7(2) shall not form part of the authorised representative's mandate.

Article 9

Obligations of importers

1. Importers shall place only compliant C-ITS stations on the Union market.
2. Before placing a C-ITS station on the market, importers shall ensure that:
 - (a) the manufacturer has carried out the conformity assessment procedure referred to in Article 7(2);
 - (b) the manufacturer has drawn up the technical documentation;
 - (c) the C-ITS station bears the required the CE marking ;
 - (d) the manufacturer has complied with the requirements set out in Article 7(7) and (8).
3. Where an importer considers that a C-ITS station is not in conformity with the requirements referred to in Article 5, it shall not place the product on the market until it has been brought into conformity. Where the C-ITS station presents a risk, the importer shall inform the manufacturer and the market surveillance authorities to that effect.
4. On the C-ITS station or, where that is not possible, on its packaging or in a document accompanying the C-ITS station, importers shall indicate:
 - (a) their name;
 - (b) their registered trade name or registered trademark;
 - (c) the address at which they can be contacted.

The contact details shall be in a language easily understood by end-users and competent national authorities.

5. Importers shall ensure that the C-ITS station is accompanied by instructions and safety information in a language that can be easily understood by end-users, as determined by the Member State concerned.

6. Importers shall ensure that, while a C-ITS station is under their responsibility, storage or transport conditions do not jeopardise its compliance with the requirements set out in Article 5.
7. To protect the health and safety of consumers, where deemed appropriate with regard to the risks presented by a C-ITS station, importers shall:
 - (a) carry out sample testing of the marketed C-ITS station;
 - (b) investigate and, if necessary, keep a register of complaints, of non-conforming C-ITS stations and of C-ITS station recalls;
 - (c) keep distributors informed of such monitoring.
8. Importers who consider that a C-ITS station that they have placed on the market is not in conformity with this Regulation shall immediately take the corrective measures necessary to bring that C-ITS station into conformity, or to withdraw or recall it, as appropriate. Where the C-ITS station presents a risk, importers shall immediately inform the competent national authorities of the Member States in which they have made it available, giving details, in particular, of the non-compliance and any corrective measures taken.
9. For 10 years after the C-ITS station has been placed on the market, importers shall keep a copy of the EU declaration of conformity at the disposal of the market surveillance authorities and ensure that the technical documentation can be made available to those authorities on request.
10. On reasoned request from a competent national authority, importers shall provide it with all information and documentation in paper or electronic form necessary to demonstrate the conformity of a C-ITS station in a language that can be easily understood by that authority. They shall cooperate with that authority, at its request, on any action to eliminate the risks posed by C-ITS stations that they have placed on the market.

Article 10

Obligations of distributors

1. When making a C-ITS station available on the market, distributors shall act with due care in relation to the requirements of this Regulation.
2. Before making a C-ITS station available on the market, distributors shall verify that:
 - (a) it bears the CE marking;
 - (b) it is accompanied by the instructions and safety information referred to in Article 7(9) in a language that can be easily understood by end-users in the Member State in which it is to be made available on the market;
 - (c) the manufacturer and the importer have complied with the requirements set out in Article 7(7) and (8) and Article 9(4).
3. Where a distributor considers that a C-ITS station is not in conformity with Article 5, it shall not make it available on the market until it has been brought into conformity. Where the C-ITS station presents a risk, the distributor shall inform the manufacturer or importer and the market surveillance authorities to that effect.

4. Distributors shall ensure that, while a C-ITS station is under their responsibility, storage or transport conditions do not jeopardise its compliance with the requirements in Article 5.
5. Distributors that consider that a C-ITS station which they have made available on the market is not in conformity with this Regulation or any other applicable Union legislation shall make sure that corrective measures are taken to bring it into conformity, or to withdraw it or recall it, as appropriate. Where the C-ITS station presents a risk, distributors shall immediately inform the market surveillance authorities of the Member States in which they made it available, giving details, in particular, of the non-compliance and of any corrective measures taken.
6. On reasoned request from a competent national authority, distributors shall provide it with all information and documentation necessary to demonstrate the conformity of a C-ITS station. They shall cooperate with that authority, at its request, on any action to eliminate the risks posed by C-ITS stations that they have made available on the market.

Article 11

Cases in which obligations of manufacturers apply to importers and distributors

Where an importer or distributor places a C-ITS station on the market under its name or trademark or modifies a C-ITS station already placed on the market in such a way that compliance with this Regulation may be affected, it shall be considered a manufacturer for the purposes of this Regulation and be subject to the obligations of the manufacturer under Article 7.

Article 12

Identification of economic operators

Economic operators shall, on request, identify the following to the market surveillance authorities;

- (a) any economic operator who has supplied them with a C-ITS station;
- (b) any economic operator to whom they have supplied a C-ITS station.

Economic operators shall be able to present the information referred to in the first paragraph for 15 years after they have been supplied with the C-ITS station and for 15 years after they have supplied with the C-ITS station.

Article 13

EU declaration of conformity

1. The EU declaration of conformity shall state that the fulfilment of requirements specified in Article 5 has been demonstrated.
2. The EU declaration of conformity shall be structured according to the model in Part B of Annex V, contain the elements specified in Part A of Annex V and be kept up to date. It shall be translated into the language or languages required by the Member State where the C-ITS station is made available on the market.

3. By drawing up the EU declaration of conformity, the manufacturer shall assume responsibility for the compliance of the C-ITS station with the requirements laid down in this Regulation.
4. Where a C-ITS station is subject to more than one Union act requiring an EU declaration of conformity, a single declaration shall be drawn up in respect of all such acts. That declaration shall identify the acts concerned, including their publication references.

Article 14

General principles of the CE marking

The CE marking shall be subject to the general principles set out in Article 30 of Regulation (EC) No 765/2008 of the European Parliament and of the Council¹⁶.

Article 15

Rules and conditions for affixing the CE marking

1. The CE marking shall be affixed visibly, legibly and indelibly to the C-ITS station or to its data plate.
2. The CE marking shall be affixed before the C-ITS station is placed on the market. It may be followed by a pictogram or any other mark indicating a special risk or use.

Article 16

Union market surveillance and control of C-ITS stations entering the Union market

Article 15(3) and Articles 16 to 29 of Regulation (EC) No 765/2008 shall apply to C-ITS stations.

Article 17

Procedure for dealing with C-ITS stations presenting a risk at national level

1. Where the market surveillance authorities of one Member State have taken action pursuant to Article 20 of Regulation (EC) No 765/2008 or where they have reason to believe that a C-ITS station presents a risk to the health or safety of persons or road safety and traffic efficiency, they shall carry out an evaluation of the C-ITS station concerned covering all applicable requirements of this Regulation. The relevant economic operators shall cooperate with them as necessary.

Where, in the course of the evaluation, the market surveillance authorities find that the C-ITS station does not comply with the requirements of this Regulation, they shall without delay require the relevant economic operator to take all appropriate corrective measures to bring it into compliance with those requirements, withdraw it

¹⁶ Regulation (EC) No 765/2008 of the European Parliament and of the Council of 9 July 2008 setting out the requirements for accreditation and market surveillance relating to the marketing of products and repealing Regulation (EEC) No 339/93 (OJ L 218, 13.8.2008, p. 30).

from the market or recall it within a reasonable period, commensurate with the nature of the risk.

Article 21 of Regulation (EC) No 765/2008 shall apply to the measures referred to in the second subparagraph of this paragraph.

2. Where the market surveillance authorities consider that non-compliance is not restricted to their national territory, they shall inform without delay the Commission and the other Member States of the results of the evaluation and of the measures that they have required the economic operator to take.
3. The economic operator shall ensure that all appropriate corrective measures are taken throughout the Union in respect of all C-ITS stations concerned that it has made available on the Union market.
4. Where the economic operator does not take adequate corrective measures within the period referred to in the second subparagraph of paragraph 1, the market surveillance authorities shall take all appropriate provisional measures to prohibit or restrict the making available of the C-ITS station on their national market, withdraw it from that market or recall it.
5. The market surveillance authorities shall inform the Commission and the other Member States of the provisional measures referred to in paragraph 4 without delay. That information shall include all available details, including:
 - (a) the data necessary to identify the non-compliant C-ITS station;
 - (b) the origin of the C-ITS station;
 - (c) the risk involved and the nature of the alleged non-compliance of the C-ITS with the requirements set out in this Regulation;
 - (d) the nature and duration of the provisional measures taken;
 - (e) the arguments put forward by the economic operator.
6. Member States other than the Member State initiating the procedure shall without delay inform the Commission and the other Member States of:
 - (a) any measures they have adopted;
 - (b) any additional information at their disposal relating to the non-compliance of the C-ITS station concerned;
 - (c) any objections they may have to the provisional measures taken by the Member State initiating the procedure.
7. Where, within three months of receiving the information referred to in paragraph 5, the other Member States or the Commission have raised no objection to a provisional measure taken by a Member State, that measure shall be deemed justified. Where the provisional measure is deemed justified, Member States shall ensure that appropriate restrictive measures are taken in respect of the C-ITS station concerned, such as its withdrawal from their market, without delay.

Article 18

Union safeguard procedure

1. Where, on completion of the procedure set out in Article 17(3) and (4), objections have been raised against a provisional measure taken by a Member State, or where the Commission considers a provisional measure to be contrary to Union legislation, the Commission shall without delay enter into consultation with the Member States and the relevant economic operators and evaluate the provisional measure. On the basis of the results of that evaluation, the Commission shall decide whether the national measure is justified or not.

The Commission shall address its decision to all Member States and immediately communicate it to the relevant economic operators.

2. If the provisional measure is considered justified in a Commission decision, all Member States shall take the measures necessary to ensure that the non-compliant C-ITS station is withdrawn from their market and inform the Commission accordingly. If the provisional measure is considered unjustified, the Member State concerned shall withdraw it.

Article 19

Compliant C-ITS stations that present a risk to health and safety at national level

1. Where, after an evaluation pursuant to Article 17(1), the market surveillance authorities of a Member State find that, while in compliance with this Regulation, a C-ITS station presents a risk to the health or safety of persons or to other aspects of public interest protection, those authorities shall order the relevant economic operator to take one or more of the following corrective measures commensurate with the nature of the risk:

- (a) to take all appropriate measures to ensure that the C-ITS station, when placed on the market, no longer presents that risk;
- (b) to withdraw the C-ITS station from the market;
- (c) to recall the C-ITS station.

The market surveillance authorities shall prescribe a reasonable period, commensurate with the nature of the risk, in which the economic operator is to take the measures referred to in the first subparagraph.

2. The economic operator shall ensure that the corrective measure is taken throughout the Union in respect of all such C-ITS stations that it has made available on the Union market.
3. The market surveillance authorities shall immediately inform the Commission and the other Member States of the corrective measures they have ordered pursuant to paragraph 1 and of all available details, including:
 - (a) the data necessary to identify the C-ITS station concerned;
 - (b) the origin and the supply chain of the C-ITS station;
 - (c) the nature of the risk;
 - (d) the nature and duration of the corrective measures.

4. The Commission shall without delay enter into consultation with the Member States and the relevant economic operators and evaluate the corrective measures ordered by the market surveillance authorities. On the basis of the results of the evaluation, it shall decide whether or not the measure is justified and, where necessary, propose appropriate measures.
5. The Commission shall address its decision to all Member States and immediately communicate it to the relevant economic operator or operators.

Article 20

Formal non-compliance

1. Without prejudice to Article 17, a Member State shall require the relevant economic operator to put an end to the non-compliance where it makes one of the following findings:
 - (a) the CE marking has been affixed in violation of Article 14 or 15;
 - (b) the CE marking has not been affixed;
 - (c) the EU declaration of conformity has not been drawn up;
 - (d) the EU declaration of conformity has not been drawn up correctly;
 - (e) technical documentation is either not available or not complete;
 - (f) the information referred to in Article 5(6) or Article 7(3) is absent, false or incomplete;
 - (g) any other administrative requirement provided for in Article 5 or Article 7 is not fulfilled.
2. Where the non-compliance referred to in paragraph 1 persists, the Member State concerned shall take all appropriate measures to restrict or prohibit the making available of the C-ITS station on the market or ensure that it is recalled or withdrawn from the market.

CHAPTER IV

PUTTING IN SERVICE AND OPERATION OF C-ITS STATIONS

Article 21

Putting in service of central C-ITS stations

1. Before putting central C-ITS stations in service, the C-ITS station operator shall ensure that they have been designed and manufactured in accordance with the requirements set out in Article 5. To this end, it shall take either of the following actions:
 - (a) buy a central C-ITS station that was placed on the market in accordance with Chapter III. In that case, paragraphs 2 and 3 of this Article shall not apply;
 - (b) integrate the C-ITS station capabilities in a traffic control centre or central server. In that case, paragraphs 2 and 3 of this Article shall apply and Articles 7 to 20 shall not apply to the central C-ITS station.

2. C-ITS station operators shall draw up the required technical documentation referred to in Part C of Annex V and carry out the conformity assessment procedure referred to in Part C of Annex V. Where compliance of a central C-ITS station with the requirements set out in Article 5 has been demonstrated by that procedure, C-ITS station operators shall draw up an EU declaration of conformity in accordance with Part D of Annex V.
3. C-ITS station operators shall keep the technical documentation and the EU declaration of conformity as long as the central C-ITS station is in operation.

Article 22

Obligations of C-ITS station operators

1. C-ITS station operators shall ensure that all their C-ITS stations are put in service and operated in accordance with this Regulation.
2. Before putting a C-ITS station in service, the C-ITS station operator shall check that:
 - (a) it bears the CE marking
 - (b) the technical documentation referred to in Article 7 is available;
 - (c) the C-ITS station is certified in accordance with the requirements in Section 1.6.2 of Annex IV.

The obligations provided for in points (a) and (b) of the first subparagraph of this paragraph shall not apply to central C-ITS stations put in service in accordance with point (b) of Article 21(1).

Furthermore, before a C-ITS station is put in service, the C-ITS station operator shall enrol it in the EU C-ITS security credential management system in accordance with Article 23(3).

3. Before putting a C-ITS station in service, the C-ITS station operator shall agree with the owner of the C-ITS station on the rights and obligations with regard to the operation, maintenance and updating of the C-ITS station, including on how to inform the end-user.
4. Where a C-ITS station is enrolled in the EU C-ITS security credential management system, it shall be registered in a C-ITS station register of its enrolment authority together with the identification of its operator. The C-ITS point of contact shall maintain a list of C-ITS station registers.
5. The C-ITS station operator shall ensure that, while the C-ITS station is in use, it continues to comply with the requirements of Article 5, as applicable at the time of its putting in service.
6. Where a C-ITS station is to be upgraded either at the initiative of its operator or as required by an amendment to this Regulation, the operator shall ensure that the C-ITS station complies with the latest version of the relevant specifications referred to in Article 5.
7. Where a C-ITS station is to be upgraded at the initiative of the manufacturer or its authorised representative, the manufacturer or its authorised representative and the C-ITS station operators shall cooperate with a view to ensuring that the C-ITS station complies with the latest version of the relevant specifications referred to in Article 5.

CHAPTER V

SECURITY

Article 23

Enrolment of C-ITS stations in the EU C-ITS security credential management system

1. The EU C-ITS security credential management system is set up for the provision of trusted and secure communication between C-ITS stations.
2. The functioning of the EU C-ITS security credential management system shall comply with the requirements in:
 - (a) Annex III (certificate policy), which sets out the requirements for the management of public key certificates for C-ITS services by issuing entities, and their usage by end-entities;
 - (b) Annex IV (security policy), which sets out the requirements for the management of information security in C-ITS.
3. All C-ITS stations shall be enrolled in, and comply with the rules of, the EU C-ITS security credential management system, in accordance with the specifications laid down in Annexes III and IV.

Article 24

C-ITS certificate policy authority

1. The C-ITS certificate policy authority shall be responsible for managing the certificate policy and the PKI authorisation in accordance with the certificate policy set out in Annex III.
2. The Commission shall act as the C-ITS certificate policy authority until a dedicated entity is established.

Article 25

Trust list manager

1. The trust list manager shall be responsible for generating and updating the European Certificate Trust List ('ECTL') in accordance with the certificate policy set out in Annex III and for regular activity reporting to the C-ITS certificate policy authority as regards the overall secure operation of C-ITS trust model.
2. The Commission shall act as the trust list manager until a dedicated entity is established.

Article 26

C-ITS point of contact

1. The C-ITS point of contact shall be responsible for handling all communication with root certification authority managers and publishing the public key certificate of the trust list manager and the ECTL in accordance with the certificate policy set out in Annex III.
2. The Commission shall act as the C-ITS point of contact until a dedicated entity is established.

Article 27

Information security management system

Each C-ITS station operator shall operate an information security management system in accordance with ISO/IEC 27001 and the additional requirements in Section 1.3.1 of Annex IV.

Article 28

Compliance with the security policy

C-ITS station operators shall periodically request and obtain certification in accordance with the requirements in Section 1.7 of Annex IV.

CHAPTER VI

IMPLEMENTATION

Article 29

Implementation of the C-ITS network

1. The Commission shall have the following tasks in the implementation of the C-ITS network:
 - (a) governance tasks:
 - (1) preparing updates to the C-ITS governance framework;
 - (2) supporting the development of common principles for the lawful processing of personal data by data controllers and processors in the C-ITS network;
 - (3) acting as contact point on the implementation of the C-ITS network for C-ITS station operators and manufacturers, ITS users groups and third country stakeholders;
 - (4) reviewing the following:
 - (a) C-ITS assessment criteria to be used by testing laboratories and other assessment organisations during the compliance assessment process;

- (b) C-ITS reference specifications, including basic and test standards to be used during the various steps of the assessment process.
 - (b) supervision tasks: to supervise the management of large-scale and high-severity security incidents that impact the entire C-ITS network (including disaster recovery situations where the cryptographic algorithm is compromised).
 - (c) the C-ITS certificate policy authority tasks:
 - (1) certificate policy management;
 - (2) PKI authorisation management.
2. In carrying out the tasks referred to in paragraph 1 the Commission shall be assisted by an expert group with representatives from public and private stakeholders, in particular C-ITS station manufacturers and operators in the C-ITS network.

CHAPTER VII

FINAL PROVISIONS

Article 30

Interim measures

In the event of an emergency situation jeopardising the proper functioning of the C-ITS network and having a severe direct impact on road safety, cyber security or the availability and integrity of C-ITS services, the Commission may adopt a decision introducing interim measures in order to remedy that situation. That decision shall be strictly limited to addressing the causes and consequences of that situation. It shall apply until this Regulation is amended to remedy that situation.

Article 31

Reporting

1. Member States shall monitor the implementation of this Regulation on their territory and report on the progress made in its implementation in the regular reporting referred to in Article 17(3) of Directive 2010/40/EU. In particular, the reporting shall cover:
- (a) a description of the relevant public and public-private initiatives for C-ITS deployment, including their objective, timescale, milestones, resources, lead stakeholder(s) and status;
 - (b) the coverage of the road network by road type for each vehicle-to-infrastructure C-ITS priority service listed in Annex I;
 - (c) the number of roadside and central C-ITS stations deployed on their territory.
- The Member States shall report for the first time by 27 August 2020.
2. Root certification authorities listed in the European certificate trust list specified in Annex III shall notify to the Commission by 31 December 2020 and by 31 December

every year thereafter the number of enrolled and operational mobile and fixed C-ITS stations under their authority.

Article 32

C-ITS stations placed on the market before 31 December 2019

1. C-ITS stations placed on the market at the latest 31 December 2019, which do not fully comply with the C-ITS security related requirements of this Regulation, and C-ITS stations of the same type/model placed on the market at the latest 30 June 2021, may be granted enrolment in the C-ITS trust model by the C-ITS certificate policy authority on a case by case basis, provided that the conditions set out in paragraph 2 are fulfilled. C-ITS stations of the same type/model used for the replacement of defective or broken C-ITS stations referred to in the first sentence, may also be granted enrolment under the same conditions.
2. The C-ITS certificate policy authority may enrol the C-ITS stations referred to in paragraph 1 in the C-ITS trust model under the following conditions:
 - (a) the same level of security and trust as required by this Regulation is established;
 - (b) it is demonstrated that the respective C-ITS stations, and the envisaged enrolment procedure, pose no additional risks to the C-ITS network.
3. The C-ITS certificate policy authority shall take its decision on the basis of the report of an accredited PKI auditor and a security vulnerability assessment conducted by a conformity assessment body.

Article 33

Review

1. By [OP: Insert the date: 3 years after the entry into force of this Regulation], the Commission shall review the implementation of this Regulation and, if appropriate, adopt new common specifications within the scope of this Regulation.
2. Where stakeholders intend to deploy a new or updated communication method or service, or other innovative solutions, including technologies for which prototypes are currently being tested, in the C-ITS network, they shall first submit to the Commission a file containing the technical specifications and information on degree of maturity and compatibility of the innovative solution with this Regulation. Those technical specifications shall be developed in line with the principles of openness, consensus and transparency as defined in Annex II to Regulation (EU) No 1025/2012.

The Commission shall then analyse the file without undue delay and start discussing the file with the expert group referred to in Article 29(2) within 2 months, in view of a possible amendment of this Regulation. The group of experts shall assess the need for common specifications integrating the new solutions into the C-ITS network and provide an opinion, at the latest 6 months after receiving the file. Where appropriate, the Commission's Joint Research Centre shall support the relevant discussions with an independent technical assessment.

The submission of innovative solutions to the Commission and, where appropriate, the subsequent amendment of this Regulation may intervene at any time following the entry into force of this Regulation.

3. To maintain the continuity of the C-ITS priority services listed in Annex I, any future amendments shall ensure compatibility and interoperability with existing C-ITS stations put in service in accordance with this Regulation, or specify a suitable migration path.

Article 34

Entry into force

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

It shall apply from 31 December 2019.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels, 13.3.2019

For the Commission
The President
Jean-Claude JUNCKER