



**COUNCIL OF
THE EUROPEAN UNION**

Brussels, 12 January 2010

5186/10

**Interinstitutional File:
2008/0263 (COD)**

**TRANS 4
TELECOM 2
IND 7
CODEC 6**

NOTE

from: General Secretariat of the Council
to: delegations

No. prev. doc.: 17300/09 TRANS 494 TELECOM 267 IND 183 CODEC 1429
No. Cion prop.: 17564/08 TRANS 493 TELECOM 238 IND 236 CODEC 1896

Subject: Proposal for a Directive of the European Parliament and of the Council laying down the framework for the deployment of Intelligent Transport Systems in the field of road transport and for interfaces with other transport modes
- Consolidated version (which was sent to the EP)

Delegations will find attached, for information, the text which reflects the agreement reached at the informal trialogue on 8 December 2009, as confirmed by COREPER on 9 December 2009, except for the provisions regarding the comitology procedures. However, in the attached text such provisions already appear, after having been endorsed by Coreper on 16 December 2009. This text was sent to EP and the Presidency is still awaiting its reaction.

Proposal for a

DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

laying down the framework for the deployment of Intelligent Transport Systems in the field of road transport and for interfaces with other transport modes

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty establishing the European Community, and in particular Article 71(1) thereof,

Having regard to the proposal from the Commission¹,

Having regard to the opinion of the European Economic and Social Committee²,

Having regard to the opinion of the Committee of the Regions³,

Acting in accordance with the procedure laid down in Article 251 of the Treaty

Whereas:

- (1) The increase of road transport associated with the growth of the European economy and with the mobility requirements of the citizens is a primary cause of increasing congestion of the road infrastructure and energy consumption, as well as environmental and social problems.
- (2) The response to those major challenges cannot be limited to traditional measures including, notably, the expansion of the existing road transport infrastructure. Innovation will have a major role to play in finding appropriate solutions for the Community.

¹ OJ C , , p. .

² OJ C , , p. .

³ OJ C , , p. .

- (2a) Intelligent Transport Systems (ITS) are advanced applications that without embodying intelligence as such aim to provide innovative services on transport modes and traffic management and enable various users to be better informed and make safer, more coordinated and "smarter" use of transport networks.
- (3) Intelligent Transport Systems (ITS) integrate telecommunications, electronics and information technologies with transport engineering in order to plan, design, operate, maintain and manage transport systems. The application of information and communication technologies to the road transport sector and its interfaces with other transport modes (ITS) will make a significant contribution to improving environmental performance, efficiency, including energy efficiency, safety and security of road transport including the transport of dangerous goods, public security, passenger and freight mobility whilst at the same time ensuring the functioning of the internal market and increased levels of competitiveness and employment. Such applications should be without prejudice to matters concerning national security.
- (4) Advances in the application of information and communication technologies to other transport modes should now be reflected in developments in the road transport sector, in particular with a view to ensuring higher levels of integration in that field between road transport and other transport modes.
- (5) In some Member States national applications of these technologies are already being deployed in the road transport sector, but such deployment remains fragmented and uncoordinated and cannot provide geographical continuity of ITS services throughout the Community and at its external borders.

- (6) To ensure a coordinated and effective deployment of ITS within the Community as a whole, common specifications, including, where appropriate, standards, defining further detailed provisions and procedures should be introduced. Before adopting any specifications, the Commission should assess their compliance with certain defined basic principles as set out in annex I. In the first instance, priority should be given to four main areas of ITS development and deployment. During further implementation of ITS the existing ITS infrastructure put in place by a particular Member State should be taken into account in terms of technological progress and financial efforts.
- (6a) Whereas, when a co-decision act is adopted in accordance with Article 4 paragraph 1a, second subparagraph, the text of Article 3 paragraph 1, second sentence, should be amended accordingly.
- (7) The common specifications should inter alia take into account and build upon the experience and results already obtained in this area, notably in the context of the eSafety initiative⁴, launched by the Commission in April 2002. The eSafety Forum has been established by the Commission under that initiative to promote and further implement recommendations to support the development, deployment and use of eSafety systems.
- (7a) Vehicles which are operated mainly for their historical interest and were originally registered and/or type-approved and/or put into service before the entry into force of this Directive and of its implementing measures should not be affected by the rules and procedures laid down in this Directive.
- (8) ITS should build on interoperable systems based on open and public standards, available on a non-discriminatory basis to all application and service suppliers and users.

⁴ http://www.esafetysupport.org/download/European_Commission/048-esafety.pdf.

- (9) The deployment and use of ITS applications and services will entail the processing of personal data. Such processing is to be carried out in accordance with Community rules, as set out, inter alia, in 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 and in 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. Among others, principles of purpose limitation and data minimisation in the application of ITS application should be applied.

Anonymisation as one of the principles of enhancing individuals' privacy should be encouraged. As far as data protection and privacy related issues in the field of ITS applications and services deployment are concerned, the Commission should further, as appropriate, consult the European Data Protection Supervisor and request an opinion of the Article 29 Data Protection Working Party (i.e. the independent advisory body to the Commission established under Article 29 of the Data Protection Directive).

- (10) The deployment and use of ITS applications and services, and notably traffic and travel information services, will entail the processing and use of road, traffic and travel data forming part of documents held by public sector bodies of the Member States. Such processing and use should be carried out in accordance with Community rules, as set out in Directive 2003/98/EC of the European Parliament and of the Council of 17 November 2003 on the re-use of public sector information.⁵

⁵ OJ L 345, 31.12.2003, p.90.

- (11) In appropriate cases, the specifications should include detailed provisions laying down the procedure governing assessment of conformity or suitability for use of constituents. Those provisions should be based on 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 products⁶, in particular concerning the modules for the various phases of the conformity assessment procedures. Since Directive 2007/46/EC⁷ already establishes a framework for the type approval of motor vehicles and their trailers, and of systems, components and separate technical units intended for such vehicles, whilst Directives 2002/24/EC⁸ and 2003/37/EC⁹ relate to the type approval of two or three-wheel motor vehicles and agricultural or forestry tractors, their trailers and interchangeable towed machinery respectively, it would be a duplication of work to provide for conformity assessment of equipment and applications falling within the scope of those Directives. At the same time, although the provisions in these Directives cover ITS-related equipment installed in vehicles, they do not apply to external road infrastructure ITS equipment and software. In such cases, the specifications could provide for conformity assessment procedures. Such procedures should be limited to what would be necessary in each separate case.
- (12) 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 used¹⁰.
- (12a) Innovative technologies such as Radio Frequency Identification Devices (RFID) or Galileo/EGNOS should be used for the realisation of ITS applications, notably for the tracking and tracing of freight along its journey and across modes.

⁶ OJ L 218; 13.08.2008, p. 82

⁷ OJ L 263, 09.10.2007, p. 1.

⁸ OJ L 124, 09.05.2002, p. 1.

⁹ OJ L 171; 09.07.2003, p. 1.

¹⁰ See Council Regulation N°1/2005 of 22 December 2004, OJ L 3, 5.1.2005, p.1 and Regulation (EC) No 683/2008 of the European Parliament and of the Council of 9 July 2008, OJ L 196, 24.7.2008, p. 1.

- (13) Major stakeholders such as ITS service providers, associations of ITS users, transport and facilities operators, representatives of the manufacturing industry, social partners, professional associations and local authorities should have the possibility to advise the Commission on the commercial and technical aspects of the deployment of ITS within the Community. For this purpose the Commission, ensuring close cooperation with stakeholders and Member States, should set up an ITS advisory group. The work of this group should be carried out in a transparent manner and the result should be made available to the committee established by this Directive.
- (14) The measures necessary for the implementation of this Directive should be adopted in accordance with Council Decision 1999/468/EC of 28 June 1999 laying down the procedures for the exercise of implementing powers conferred on the Commission.¹¹
- (15) The Commission should be empowered to adopt delegated acts in accordance with Article 290 of the Treaty in respect of the adoption of specifications. It is of particular importance that the Commission consults experts in the preparatory phase in accordance with the commitment of the Commission undertaken in the Communication of 9 December 2009 on the implementation of Article 290 of the Treaty on the functioning of the European Union.
- 15(a) (new) Taking into consideration, in particular, the time-frame for adopting specifications in respect of priority actions and the fundamental importance of these specifications for the functioning of this Directive as well as the limited experience in fields to be covered, it is appropriate to provide for a review by the legislator regarding the delegation of powers to the Commission after a period of 5 years by way of a corresponding time-limit for that delegation.

¹¹ OJ L 184, 17.7.1999, p. 23.

- (16) In order to guarantee a coordinated approach, the Commission should ensure coherence between the activities of the Committee established by this Directive and those of the Committee established by 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 Community¹², the Committee set up by Council Regulation (EEC) (No) 3821/85 on recording equipment in road transport¹³, the Committee of Directive 2007/46/EC of the European Parliament and of the Council of 5 September 2007 establishing a framework for the approval of motor vehicles and their trailers, and of systems, components and separate technical units intended for such vehicles¹⁴ and the Committee set up by 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).
- (17) Since the objective of this Directive, namely to ensure the coordinated deployment of interoperable ITS throughout the Community, cannot be sufficiently achieved by the Member States and/or the private sector and can therefore, by reason of its scale and effects, be better achieved at Community level, the Community may adopt measures, in accordance with the principle of subsidiarity as set out in Article 5 of the Treaty. 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 those objectives.
- (18) In accordance with paragraph 34 of the Inter-institutional Agreement on better law-making, Member States are encouraged to draw up, for themselves and in the interest of the Community, their own tables, which will, as far as possible, illustrate the correlation between this Directive and their transposition measures, and to make those tables public.

HAS ADOPTED THIS DIRECTIVE:

¹² OJ L 166, 30.04.2004, p. 124.

¹³ OJ L 370, 31.12.1985, p. 8.

¹⁴ OJ L 263, 9.10.2007, p. 1.

Article 1

Subject matter and scope

This Directive establishes a framework in support of the coordinated and coherent deployment and use of intelligent transport systems (ITS) within the Community, in particular across the borders between the Member States, and sets out the general conditions necessary for that purpose.

It provides for the development of specifications for actions within the priority areas referred to in Article 1a, as well as for the development, where appropriate, of necessary standards.

It shall apply to ITS applications and services in the field of road transport and to their interfaces with other transport modes without prejudice to matters concerning national security or necessary in the interest of defence.

Article 1a

Priority areas

1. For the purpose of this Directive the following shall constitute priority areas for the development and use of specifications and standards:
 - (a) optimal use of road, traffic and travel data;
 - (b) continuity of traffic and freight management ITS services;
 - (c) ITS road safety and security applications;
 - (d) linking the vehicle with the transport infrastructure.
2. The scope of the priority areas is specified in Annex II.

Article 1b
Priority actions

The following shall constitute priority actions within the priority areas referred to in Article 1 a for the development and use of specifications and standards:

- a) the provision of EU-wide multimodal travel information services as set out in Annex II point 1 a, b and c;
- aa) the provision of EU-wide real-time traffic information services as set out in Annex II point 1 aa, b and c;
- b) data and procedures for the provision, where possible, of road safety related minimum universal traffic information free of charge to users as set out in Annex II point 1 d;
- c) the harmonised provision for an interoperable EU-wide eCall as set out in Annex II point 3 a;
- d) the provision of information services for safe and secure parking places for trucks and commercial vehicles as set out in Annex II 3 b;
- dd) the provision of reservation services for safe and secure parking places for trucks and commercial vehicles as set out in Annex II 3 bb.

Article 2
Definitions

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

- (a) "Intelligent Transport Systems (ITS)" means systems, in which information and communication technologies are applied, in the field of road transport (including infrastructure, vehicles and users) and, traffic and mobility management, and with the interfaces to other transport modes;

- (b) "interoperability" means the capacity of systems, and of the underlying business processes, to exchange data and to share information and knowledge;
- (c) "ITS application" means an operational instrument for the application of ITS;
- (d) "ITS service" means the provision of an ITS application through a well-defined organisational and operational framework with the aim of contributing to the user safety, efficiency, comfort and/or to facilitate or support transport and travel operations;
- (e) "ITS service provider" means any provider of an ITS service, whether public or private;
- (f) "ITS user" means any user of ITS applications or services including travellers, vulnerable road users, road transport infrastructure users and operators, fleet managers and operators of emergency services;
- (ff) "Vulnerable road users" means non-motorised road users, such as pedestrians and cyclists as well as motor-cyclists and persons with disabilities or reduced mobility and orientation.
- (g) "nomadic device" means a portable communication or information device that can be brought inside the vehicle to support the driving task and/or the transport operations;
- (h) "platform" means an on-board or off-board unit enabling the deployment, provision, exploitation and integration of ITS applications and services;
- (hh) "architecture" means the conceptual design that defines the structure, the behaviour and the integration in its surrounding context of a given system;
- (i) "interface" means a facility between systems which provides the media through which they can connect and interact;
- (j) "compatibility" means the general ability of a device or system to work with another device or system without modification;

- (k) "continuity of services" means the ability to ensure seamless services across the Community, on transport networks;
- (l) "road data" means data on road infrastructure characteristics, including fixed traffic signs or their regulatory safety attributes;
- (m) "traffic data" means historic and real-time data on road traffic characteristics;
- (n) "travel data" means basic data (such as timetables of public transport and tariffs) necessary to provide multi-modal travel information before and during the trip to facilitate travel planning, booking and adaptation.
- (o) "specification" means a binding measure laying down provisions containing requirements, procedures or any other relevant rules.
- (p) "standard" means standard as defined in Article 1(4) of Directive 98/34/EC.

Article 3

Deployment of ITS

1. Member States shall take the necessary measures to ensure that the specifications referred to in Article 4 are applied, in accordance with the principles in Annex I, to ITS applications and services, when these are deployed. 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 any legislative act adopted under Article 4 paragraph 1a second subparagraph.

2.

[...]

3. Member States shall also make efforts to co-operate in respect of the priority areas referred to in Article 1a insofar as no specifications referred to in Article 4 have been adopted.

Article 4

Specifications

1. The Commission shall first adopt the specifications necessary to ensure the compatibility, interoperability and continuity for the deployment and operational use of ITS for the priority actions referred to in Article 1 b.
 - 1a. The Commission shall aim at adopting specifications for one or more of the priority actions as referred to in Article 1 b of this Directive at the latest by 12 months after the date of transposition.

At the latest 12 months after the adoption of the necessary specifications for a priority action as referred to in Article 1 b of this Directive, the Commission shall, where appropriate, after conducting an impact assessment including a cost-benefit analysis, present a proposal for the deployment of this priority action to the European Parliament and the Council in accordance with Article 294 (TFEU).

2. Once the necessary specifications referred to in paragraph 1 have been established, the Commission shall adopt specifications ensuring the compatibility, interoperability and continuity for the deployment and operational use of ITS in other actions of the priority areas referred to in Article 1a.
3. Where relevant, and depending on the area of the specification, the specification shall include one or more of the following type of provisions:
 - functional provisions: describing the roles of the various stakeholders and the information flow between them
 - technical provisions: providing the technical means to fulfil the functional provisions

- organisational provisions: describing procedural obligations for the various stakeholders
- service provisions: describing the various levels of services and their content for ITS applications and services.

3a. (new) Without prejudice to the procedures under Directive 98/34 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 where this does not hinder interoperability.

4. The specifications shall, where appropriate, be based on any standards referred to in Article 4a.

4a The specifications shall, as appropriate, provide for conformity assessment in accordance with Decision 768/2008.

5. The specifications shall comply with the principles set out in Annex I.

5a The Commission shall conduct an impact assessment including a cost-benefit analysis prior to the adoption of the specifications.

6. The Commission shall be given the power to adopt delegated acts in accordance with Article 290 TFEU as regards specifications referred to in this Article. When adopting such delegated acts the Commission shall act in accordance with the relevant provisions of this Directive and in particular with paragraphs 1, 2, 3, 3a, 4, 4a, 5 and 5a of this Article as well as with Annex I.

A separated delegated act shall be adopted for each of the priority actions referred to in Article 1b.

For the delegated acts referred to in this paragraph, the procedure set out in Articles 7a, 7b and 7c shall apply.

Article 4a

Standards

1. The necessary standards to provide for interoperability, compatibility and continuity for the deployment and operational use of ITS shall be developed in the priority areas referred to in Article 1a and for the priority actions referred to in Article 1b. To that effect, the European Commission, after having consulted the committee referred to in Article 8, shall ask the relevant standardisation bodies in accordance with the procedure laid down by Directive 98/34/EC to make every necessary effort rapidly to adopt these standards.
2. When issuing a mandate to the standardisation bodies, the principles set out in Annex I shall be observed as well as any functional provision included in a specification adopted under Article 4.

Article 4b

Non-binding measures

The Commission may adopt guidelines and other non-binding measures to facilitate Member States' co-operation relating to the priority areas referred to in Article 1 (a) in accordance with the procedure referred to in Article 8 (3).

Article 5

[...]

Article 6

Rules on privacy, security and re-use of information

1. Member States shall ensure that the processing of personal data in the context of the operation of ITS is carried out in accordance with the Community rules protecting the freedoms and fundamental rights of individuals, in particular Directives 95/46/EC and 2002/58/EC.

2. In particular, Member States shall ensure that personal data are protected against misuse, including unlawful access, alteration or loss.
 - 2a. Without prejudice to paragraph 1, in order to ensure privacy, the use of anonymous data shall be encouraged, where appropriate, for the performance of the ITS applications and services.
 - 2b. Personal data shall, without prejudice to Directive 95/46, only be processed insofar as processing is necessary for the performance of the ITS applications and services.
 - 2c. With regard to the application of Directive 95/46 and in particular where special categories of data as referred to in Article 8 of that Directive are involved, Member States shall also ensure that the provisions on consent to the processing of such personal data are respected.
3. Directive 2003/98/EC¹⁵ shall apply.

Article 6a

Rules on liability

Member States shall ensure that issues related to liability, concerning the deployment and use of ITS applications and services set out in specifications adopted in accordance with Article 4, are addressed in accordance with existing Community legislation including in particular Directive 1999/34/EC as well as relevant national legislation.

Article 7

[...]

¹⁵ OJ L 345, 31.12.2003, p. 90.

Article 7a
Exercise of the delegation

1. The powers to adopt the delegated acts referred to in Article 4(6) shall be conferred on the Commission for a period of 5 years following the entry into force of this Directive. The Commission shall make a report in respect of the delegated powers at the latest 6 months before the end of the 5 year period.
2. As soon as it adopts a delegated act, the Commission shall notify it simultaneously to the European Parliament and to the Council.
3. The powers to adopt delegated acts are conferred on the Commission subject to the conditions laid down in Articles 7b and 7c.

Article 7b
Revocation of the delegation

1. The delegation of power referred to in Article 4(6) may be revoked by the European Parliament or by the Council.
2. The institution which has commenced an internal procedure for deciding whether to revoke the delegation of power shall inform the other legislator and the Commission at the latest one month before the final decision is taken, stating the delegated powers which could be subject to revocation and the reasons for a revocation.
3. The decision of revocation shall put an end to the delegation of the powers specified in that decision. It shall take effect immediately or at a later date specified therein. It shall not affect the validity of the delegated acts already in force. It shall be published in the *Official Journal of the European Union*.

Article 7c
Objections to delegated acts

1. The European Parliament and/or the Council may object to the delegated act within a period of 3 months from the date of notification.
2. If, on expiry of that period, neither the European Parliament nor the Council has objected to the delegated act, or if, before that date, the European Parliament and the Council have both informed the Commission that they have decided not to raise objections, the delegated act shall enter into force at the date stated in its provisions.
3. If the European Parliament or the Council objects to the adopted delegated act, it shall not enter into force. The institution which objects shall state the reasons for objecting to the delegated act.

Article 8

Committee procedure

1. The Commission shall be assisted by the European ITS Committee (EIC), hereafter referred to as "the Committee".
2. Where reference is made to this paragraph, Article 5a(1) to (4) and Article 7 of Decision 1999/468/EC shall apply, having regard to the provisions of Article 8 thereof.
3. Where reference is made to this paragraph, Article 3 and Article 7 of Decision 1999/468/EC shall apply, having regard to the provisions of Article 8 thereof.

Article 9

European ITS Advisory Group

The Commission shall establish a European ITS Advisory Group to advise it on business and technical aspects of the deployment and use of ITS in the Community. The group shall be composed of high level representatives from relevant ITS service providers, associations of users, transport and facilities operators, manufacturing industry, social partners, professional association, local authorities and other relevant fora.

Article 10

Reporting

1. Member States shall submit to the Commission by *[twelve months after the entry into force of this Directive]* at the latest a report on their national activities and projects regarding the priority areas laid down in Article 1(a).
2. Member States shall provide to the Commission by *[two years after the entry into force of this Directive]* at the latest information on national ITS actions envisaged over the following five years.

Guidelines for reporting by the Member States shall be adopted in accordance with the advisory procedure referred to in Article 8(3).

3. Member States shall report every three years thereafter on the progress made in the deployment of these actions.
4. The Commission shall report every three years to the European Parliament and to the Council on the progress made for the implementation of this Directive accompanied by an analysis on the functioning and implementation, including the financial resources used and needed, of Articles 3 to 6a and 9, and shall assess the need to amend this Directive, where appropriate.

5. In accordance with the advisory procedure referred to in Article 8, paragraph 3, the Commission shall adopt a working program, six months at the latest after this directive comes into force. This working program shall include objectives and dates for implementing this program every year and if necessary shall propose the necessary adaptations.

Article 11

Transposition

1. Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive by 18 months after entry into force of this Directive at the latest.

When Member States adopt those provisions, they shall contain a reference to this Directive or shall be accompanied by such reference on the occasion of their official publication. The methods of making such reference, and its wording, shall be laid down by Member States.

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 12

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 13

Addressees

This Directive is addressed to the Member States.

Done at Brussels,

For the Council
The President

PRINCIPLES FOR THE SPECIFICATIONS AND DEPLOYMENT OF ITS AS REFERRED TO
IN ARTICLES 3, 4 and 4a

The adoption of specifications, the selection and deployment of ITS applications and services, and the issuing of mandates for standards 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** – optimize the ratio of costs in relation to output with regard to meeting objectives;
- (bb) **Be proportionate** - provide, where appropriate, for different levels of achievable service quality and deployment, taking into account the local, regional, national and European specificities
- (c) **Support continuity of services** – ensure seamless services across the Community, in particular on the trans-European network, and where possible at its external borders, when such services are deployed, 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;
- (d) **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;

- (d') **Support backward compatibility** – ensure, where appropriate, the capability for ITS systems to work with existing systems that share a common purpose, without hindering the development of new technologies;
- (d'') **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;
- (d''') **Promote equality of access** – do not impede or discriminate against access to ITS applications and services by vulnerable road users;
- (e) **Support maturity** – demonstrate, after appropriate risk assessment, the robustness of innovative ITS systems, through a sufficient level of technical development and operational exploitation;
- (f) **Deliver Quality of timing and positioning** – 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;
- (g) **Facilitate Inter-modality** –take into account the coordination of various modes of transport, where appropriate, when deploying ITS;
- (h) [...]
- (i) **Respect Coherence** –take into account existing Community rules, policies and activities which are relevant in the field of ITS, in particular in the field of standardisation.

PRIORITY AREAS AND ACTIONS AS REFERRED TO IN ARTICLE 1a AND ARTICLE 1b

(1) Optimal use of road, traffic and travel data

The specifications and standards for an optimal use of road, traffic and travel data shall include the following.

Specifications necessary for priority action a

- (a) The definition of the necessary requirements to make EU-wide multimodal travel accurate and available across borders to ITS users, based on:
- The availability and accessibility of existing and accurate road and real-time traffic data used for multimodal travel information to ITS service providers without prejudice to safety and transport management constraints
 - The facilitation of the electronic data exchange between the relevant public authorities and stakeholders and the relevant ITS service providers, across borders
 - The timely updating of available road and traffic data used for multimodal travel information by the relevant public authorities and stakeholders
 - The timely updating of multimodal travel information by the ITS service providers

- (aa) The definition of the necessary requirements to make EU-wide real time traffic information services accurate and available across borders to ITS users, based on:
- The availability and accessibility of existing and accurate road and real-time traffic data used for real-time traffic information to ITS service providers without prejudice to safety and transport management constraints
 - The facilitation of the electronic data exchange between the relevant public authorities and stakeholders and the relevant ITS service providers, across borders
 - The timely updating of available road and traffic data used for real-time traffic information by the relevant public authorities and stakeholders
 - The timely updating of real-time traffic information by the ITS service providers
- (b) 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:
- The availability, to ITS 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 to ITS service providers
 - The facilitation of the electronic data exchange between the relevant public authorities and the ITS service providers
 - 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)
 - The timely updating, by the ITS service providers, of the ITS services and applications using this road and traffic data

- (c) The definition of the necessary requirements to make road, traffic and transport services data used for digital maps accurate and available, where possible, to digital map producers and service providers, based on:
- The availability of existing road and traffic data used for digital maps to digital map producers and service providers
 - The facilitation of the electronic data exchange between the relevant public authorities and stakeholders and the private digital map producers and providers
 - The timely updating of road and traffic data for digital maps by the relevant public authorities and stakeholders
 - The timely updating of the digital maps by the digital maps producers and service providers

Specifications necessary for priority action b

- (d) The definition of minimum requirements, where possible, of road safety related "universal traffic messages" free of charge to all road users, as well as their minimum content, based on:
- 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
 - The compatibility of and the integration of "universal traffic messages" into ITS services for real-time traffic and multimodal travel information

(2) Continuity of traffic and freight management ITS services

The specifications and standards for the continuity and interoperability of the traffic and freight management services, in particular on the TEN-T network, shall include the following:

Specifications necessary for other actions

- (a) The definition of the necessary measures to develop an EU ITS Framework Architecture, addressing specifically ITS-related interoperability, continuity of services and multi-modality aspects, including for example multimodal interoperable ticketing, 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.
- (b) the definition of the minimum necessary requirements for the continuity of ITS services, in particular for cross-border services, for the management of passenger transport across different modes, based on:
 - The facilitation of the electronic exchange for traffic data and information across borders, and where appropriate, regions, or between urban and inter-urban areas between the relevant traffic information/control centres and different stakeholders
 - The use of standardised information flows or traffic interfaces between the relevant traffic information/control centres and different stakeholders
- (bb) the definition of the minimum necessary requirements for the continuity of ITS services for the management freight along transport corridors and across different modes, based on:
 - The facilitation of the electronic exchange for traffic data and information across borders, and where appropriate, regions, or between urban and inter-urban areas between the relevant traffic information/control centres and different stakeholders

- The use of standardised information flows or traffic interfaces between the relevant traffic information/control centres and different stakeholders
- (c) The definition of the necessary measures in the realisation of ITS applications (notably the tracking and tracing of freight along its journey and across modes) for freight transport logistics (eFreight), based on:
- The availability of relevant ITS technologies to and their use by ITS application developers
 - The integration of positioning results in the traffic management tools and centres
- (d) The definition of the necessary interfaces to ensure interoperability and compatibility between the urban ITS architecture and the European ITS architecture based on:
- The availability of public transport, travel planning, transport demand, traffic data and parking data to urban control centres and service providers
 - The facilitation of the electronic data exchange between the different urban control centres and service providers for public or private transport and through all possible transport modes
 - The integration of all relevant data and information in a single architecture

(3) ITS road safety and security applications

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

Specifications necessary for priority action c

- (a) The definition of the necessary measures for the harmonised introduction of an interoperable EU-wide eCall, including:
- The availability of the required in-vehicle ITS data to be exchanged
 - The availability of the necessary equipment in the emergency call response centres receiving the data emitted from the vehicles
 - The facilitation of the electronic data exchange between the vehicles and the emergency call response centres

Specifications necessary for priority action d

- (b) The definition of the necessary measures to provide ITS based information systems for safe and secure parking places for trucks and commercial vehicles, in particular in service and rest areas on roads, based on:
- The availability of the road parking information to the users
 - The facilitation of the electronic data exchange between road parking sites, centres and the vehicles

(bb) The definition of the necessary measures to provide ITS based reservation systems for safe and secure parking places for trucks and commercial vehicles based on:

- The availability of the road parking information to the users
- The facilitation of the electronic data exchange between road parking sites, centres and the vehicles
- The integration of relevant ITS technologies in both vehicles and parking road facilities to update the information on available parking space for reservation purposes

Specifications necessary for other actions

- (c) 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
- (d) The definition of the necessary measures to improve the safety and comfort of vulnerable road users for all relevant ITS applications
- (e) The definition of necessary measures to integrate advanced driver support information systems into vehicles and road infrastructure which fall outside the scope of Directives 2007/46/EC, 2002/24/EC and 2003/37/EC

(4) Linking the vehicle with the transport infrastructure

The specifications and standards for ITS for linking the vehicle with the transport infrastructure shall include the following other actions:

(a) The definition of necessary measures to integrate different ITS applications on an open in-vehicle platform, based on:

- The identification of functional requirements of existing or planned ITS applications
- The definition of an open-system architecture that which defines the functionalities and interfaces necessary for the interoperability/interconnection with infrastructure systems and facilities
- The integration of future new or upgraded ITS applications in a "plug and play" manner into an open in-vehicle platform
- The use of standardisation process to adopt the architecture, and the open in-vehicle specifications

(b) The definition of necessary measures to further progress the development and implementation of cooperative (vehicle-vehicle, vehicle-infrastructure, infrastructure-infrastructure) systems, based on:

- The facilitation of the exchange of data and information between vehicle and vehicle, vehicle and infrastructure, infrastructure and infrastructure
- The availability to the respective parties (vehicle or road infrastructure) of the relevant data or information to be exchanged

- The use of a standardised message format for this exchange of data between the vehicle and the infrastructure
 - The definition of an communication infrastructure for each type of exchange (V2V, V2I, I2I)
 - The use of standardisation processes to adopt the respective architectures
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