



COUNCIL OF
THE EUROPEAN UNION

Brussels, 3 July 2009

11580/09

Interinstitutional File:
2008/0263 (COD)

LIMITE

**DOCUMENT PARTIALLY
ACCESSIBLE TO THE PUBLIC**

TRANS 271
TELECOM 146
IND 81
CODEC 938

NOTE

from: Council General Secretariat
to: Delegations

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

Delegations will find attached a revised version of above proposal in the light of discussions of the Working Party of 1 July 2009.

New text is indicated in **bold** and deleted text in ~~strikethrough~~.

Scrutiny reservation: All delegations.

Reservation: Commission.

Parliamentary scrutiny reservation: UK.

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. .

- (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 and passenger, **public security** and freight mobility whilst at the same time ensuring the functioning of the internal market and increased levels of competitiveness and employment.
- (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.
- (6) To ensure a coordinated and effective deployment of ITS within the Community as a whole, common specifications defining further detailed provisions and procedures should be introduced. In the first instance, priority should be given to four main areas of ITS development and deployment.
- (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.
- (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 should 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 data⁵ 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 sector⁶.
- (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.⁷
- (11) Directive 2007/46/EC⁸ 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/EC⁹ and 2003/37/EC¹⁰ relate to the type approval of two or three-wheel motor vehicles and agricultural or forestry tractors, their trailers and interchangeable towed machinery respectively. 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, which should accordingly be covered by national type approval procedures.

⁵ OJ L 281, 23.11.1995, p. 31.

⁶ OJ L 201, 31.7.2002, p. 37.

⁷ OJ L 345, 31.12.2003, p.90.

⁸ OJ L 263, 09.10.2007, p. 1.

⁹ OJ L 124, 09.05.2002, p. 1.

¹⁰ OJ L 171; 09.07.2003, p. 1.

- (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 used¹¹.
- (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.
- (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.¹²
- (15) In particular the Commission should be empowered to adopt measures concerning the amendment of the Annexes and measures laying down more detailed specifications for the development, implementation and use of interoperable ITS. Since those measures are of general scope and are designed to amend non-essential elements of this Directive, *inter alia* by supplementing it with new non-essential elements they must be adopted in accordance with the regulatory procedure with scrutiny provided for in Article 5a of Decision 1999/468/EC.

¹¹ 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.

¹² 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 Community¹³, the Committee set up by Council Regulation (EEC) (No) 3821/85 on recording equipment in road transport¹⁴, and 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 vehicles¹⁵.
- (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 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.¹⁶

HAS ADOPTED THIS DIRECTIVE:

¹³ OJ L 166, 30.04.2004, p. 124.

¹⁴ OJ L 370, 31.12.1985, p. 8.

¹⁵ OJ L 263, 9.10.2007, p. 1.

¹⁶ CION: Reservation on recital 18.

Article 1

Subject matter and scope¹⁷

This Directive establishes a framework for the coordinated deployment and use of intelligent transport systems (ITS) within the Community with the aim to achieve compatibility, interoperability and continuity of ITS services and the development of the specifications necessary for that purpose.^{18 19}

It shall apply to intelligent transport systems in the field of road transport and interfaces with other transport modes.

Article 1a (new)

Priority areas^{20 21}

For the purpose of this Directive the following shall be considered to constitute priority areas for the deployment and use of ITS²²:

- (a) optimal use of road, traffic and travel data;
- (b) continuity of traffic and freight management ITS services [on European Transport Corridors and in conurbations]²³;

¹⁷ Reservation: **DELETED**. These delegations expressed concerns on the mandatory deployment of ITS in Member States.

¹⁸ Scrutiny reservation: **DELETED** preferred that interoperability related to ITS should be limited to the TEN networks in a first stage.

¹⁹ **DELETED**, supported by **DELETED**, requested a reference to existing systems.

²⁰ Reservation: **DELETED**.

²¹ **DELETED** supported by **DELETED** suggested to define the scope of each priority area in Annex II.

²² **DELETED** supported by **DELETED** suggested the following modification: "*For the purpose of this Directive, the following **are** priority areas for the deployment and use of ITS.*"

²³ **DELETED** proposed to delete the text between brackets.

- (c) road safety and security **of the road transport system**;
- (d) integration of the vehicle into the transport infrastructure.

Article 2

Definitions^{24 25}

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 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, road transport infrastructure users and operators, fleet managers and operators of emergency services;
- (g) "nomadic device" means an item of communication or information equipment that can be brought inside the vehicle by the driver;^{26 27}

²⁴ **DELETED** asked for a definition of the term "continuity".

²⁵ **DELETED** requested a definition for "road data" and "traffic data".

²⁶ Scrutiny reservation: **DELETED** supported by **DELETED** suggested to add "to be used while driving"

²⁷ **DELETED** suggested to replace the term "driver" by "user".

- (h) "platform" means the encompassing functional, technical and operational environment enabling the deployment, provision or exploitation of ITS applications and services.²⁸
- (i) "interface" means a facility between systems which provides the media through which they can connect and interact;²⁹
- (j) "compatibility" means the general ability of a device or system to work with another device or system without modification.

Article 3

Deployment of ITS³⁰

1. Member States shall take the necessary measures to ensure³¹ the coordinated deployment and use of interoperable ITS applications and services within the Community in accordance with the specifications referred to in Article 4 [**and respecting the principles set out in Annex I**].
- [2. **Insofar as such specifications have been adopted** Member States shall, **where relevant**, in particular:³²
 - (a) ensure that reliable and regularly updated relevant road, ~~transport~~ **traffic and travel data held by public sector bodies** is made available to ITS users and ITS service providers;
 - (b) ensure that **relevant road** traffic and travel data and other relevant information can be exchanged between the competent traffic information and control centres in different regions or in different Member States;³³

²⁸ **DELETED** suggested to replace the term " platform" by "architecture".

²⁹ Scrutiny reservation: **DELETED**.

³⁰ Scrutiny reservation: **DELETED**.

³¹ **DELETED** suggested to replace "ensure" by "enable".

³² **DELETED** suggested that paragraph 2 be deleted. CION proposed to replace the term "ensure" in (a) and (b) by " *take the necessary measures in order that...* ".

³³ **DELETED** suggested to refer also to "enforcement agencies".

- (c) take the necessary measures to integrate³⁴ safety and security-related ITS systems into vehicles and road infrastructure and to develop safe human-machine interfaces, in particular for nomadic devices;
- (d) take the necessary measures to integrate different ITS applications , involving the exchange of information and communication between vehicles and the road infrastructure within a single platform.
- (e) take the necessary measures to involve all relevant stakeholders in the deployment and implementation³⁵ of ITS applications as appropriate.]

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.^{36 37}

~~3. For the purposes of ITS applications and services that require global, continuous, accurate and guaranteed timing and positioning services, satellite-based infrastructures, or any technology providing equivalent levels of precision shall be used.~~³⁸

³⁴ **DELETED** supported by **DELETED** suggested to replace "integrate" with "enhance the integration of" and "develop" with "enhance".

³⁵ **DELETED** supported by **DELETED** requested the deletion of the term "implementation". **CION** preferred to keep the original text retaining "the deployment and use".

³⁶ **CION** stated that its coordination role on this matter is referred to in Articles 155 and 156 of the Treaty.

³⁷ Scrutiny reservation: **DELETED**.

³⁸ Scrutiny reservation: **DELETED** (on the deletion).

Article 4
Specifications³⁹

1. The Commission shall define specifications ensuring the compatibility, interoperability and continuity for the planning, implementation and operational use of ITS in the priority areas referred to in Article 1a (new).

These measures designed to amend non-essential elements of this Directive by supplementing it shall be adopted in accordance with the regulatory procedure with scrutiny referred to in Article 8(2).

2. The specifications shall be based on the principles set out in Annex I and shall comprise at least the core elements set out in Annex II.

[Article 4a (new)]

Non-binding measures⁴⁰

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).]

³⁹ **DELETED** presented proposals on a three step methodology which are reflected in W. doc. 2009/42.

⁴⁰ Reservation: CION. Scrutiny reservation: **DELETED**.

Type-approval of road infrastructure related ITS equipment and software^{41 42}

1. Where necessary for efficiency, including energy efficiency, safety or security, or environmental protection reasons **road infrastructure related ITS equipment and software** applications falling outside the scope of Directives 2002/24/EC, 2003/37/EC and 2007/46/EC, shall be type-approved before being put into service.⁴³
2. Member States shall notify to the Commission the national bodies responsible for the type-approval of ITS equipment and software applications covered by this Directive. The Commission shall communicate such information to the other Member States.
3. All Member States shall recognise type-approvals issued by the national bodies of the other Member States referred to in paragraph 2.⁴⁴

45

⁴¹ **DELETED** supported by **DELETED** proposed to modify the title as follows: "*Type-approval of ITS equipment related to road infrastructure.*"

⁴² Reservation: **DELETED**.

⁴³ **DELETED** requested further clarification on the procedures related to type-approval.

⁴⁴ Scrutiny reservation: **DELETED**.

⁴⁵ **DELETED** supported by **DELETED** suggested the following text as Article 5a (new). "*The specifications in Article 4 shall determine the general rules for providing ITS services in Europe for each category of service; they shall in particular stipulate the content of services and service providers' obligations. The specifications shall also stipulate the conditions in which Member States may, in liaison with the Commission, impose additional rules for the provision of these services on all or part of their territory. The specifications shall specify the organisation which shall be set up by the Commission to ensure that Member States cooperate properly in controlling how these rules are applied, in particular the conditions in which information will be exchanged between them and the Commission.*"

Article 6

Rules on privacy, security and re-use of information⁴⁶

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 ITS data and records are protected against misuse, including unlawful access, alteration or loss
3. Directive 2003/98/EC⁴⁷ shall apply.

[...]

Article 8

Committee procedure⁴⁸

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.]⁴⁹

⁴⁶ Scrutiny reservation: **DELETED** (on grounds of data protection).

⁴⁷ OJ L 345, 31.12.2003, p. 90.

⁴⁸ Reservation: **DELETED**.

⁴⁹ Reservation: CION.

Article 9

European ITS Advisory Group⁵⁰

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

Reporting⁵¹

1. Member States shall submit to the Commission by *[six months after the entry into force of this Directive]* at the latest a detailed report on their national activities and projects regarding the priority areas laid down in Article 1(a) and including at least the information set out in Annex III.
2. Member States shall provide to the Commission by *[two years after the entry into force of this Directive]* at the latest **information on their plans** for national ITS actions **envisaged** over the following five years including at least the information set out in Annex III.
3. Member States shall report every two years⁵² thereafter on the progress made in the implementation of these plans.
4. The Commission shall report every two years to the European Parliament and to the Council.⁵³

⁵⁰ **DELETED** supported by **DELETED** suggested to specify that the ITS Advisory group meets on a regular basis and is closely connected to the work of the committee.

⁵¹ Scrutiny reservation: **DELETED**.

⁵² **DELETED** suggested to report every three years.

⁵³ **DELETED** proposed to add the following text: "*In accordance with the advisory procedure referred to in Article 8, paragraph 3, the Commission shall adopt a working programme, six months at the latest after this directive comes into force. This working programme shall include objectives and dates for implementing this programme 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 *[24 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.⁵⁴

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

⁵⁴ Reservation: CION.

ITS DEPLOYMENT PRINCIPLES AS REFERRED TO IN ARTICLE 3

The selection and deployment of ITS applications and services shall be based upon an evaluation of needs, and shall respect the following principles:

- (a) **Effectiveness** – the ability to 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);
- (b) **Cost-efficiency** – the ratio of costs in relation to output with regard to meeting objectives;
- (c) **Geographical continuity** – the ability to ensure seamless services across the Community, in particular on the trans-European transport network;
- (d) **Interoperability** – the ability of systems to exchange data and to enable information and knowledge to be shared;
- (e) **Degree of maturity** – the level of development;
- (f) **Quality of timing and positioning** - **For the purposes of ITS applications and services that require global, continuous, accurate and guaranteed timing and positioning services, satellite-based infrastructures, or any technology providing equivalent levels of precision shall be used.**

**CORE ELEMENTS OF THE SPECIFICATIONS
AS REFERRED TO IN ARTICLE 4**

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

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

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

- (b) The definition of the necessary requirements for the collection by relevant public authorities of road and traffic data (including e.g. traffic circulation plans, traffic regulations and recommended routes, notably for heavy goods vehicles) and for their provisioning to ITS service providers, in particular:
- The availability of public road and traffic data (including e.g. traffic circulation plans, traffic regulations and recommended routes) collected by the relevant public authorities to ITS service providers
 - The facilitation of the electronic exchange between the relevant public authorities and the ITS service providers
 - The timely updating of public road and traffic data (including traffic circulation plans, traffic regulations and recommended routes) by the relevant public authorities
 - The timely updating of the ITS services and applications using this public road and traffic data by the ITS service providers
- (c) The definition of the necessary requirements to make public road and traffic data used for digital maps accurate and available, **where possible**, to digital map producers and service providers, in particular:
- The availability of public road and traffic data used for digital maps to digital map producers and service providers
 - The facilitation of the electronic exchange between the relevant public authorities and stakeholders and the private digital map producers and providers
 - The timely updating of public 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

(d) The definition of minimum requirements for the free provision, **where possible**, of "universal traffic messages" to all road users, as well as their minimum content, in particular:

- The 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 travel information.

(2) Continuity of traffic and freight management ITS services [on European Transport Corridors and in conurbations]

The specifications for the continuity and interoperability of the traffic and freight management services and on European transport corridors and in conurbations shall include the following:

(a) the definition of the minimum/ necessary requirements for the continuity of ITS services for freight and passengers along transport corridors and across different modes, in particular:

- The facilitation of the electronic exchange for traffic data and information across borders, 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.**

(b) The definition of the necessary measures ~~to use innovative ITS technologies (Radio Frequency Identification Devices (RFID) or Galileo/Egnos)~~ in the realisation of ITS applications (notably the tracking and tracing of freight along its journey and across modes) for freight transport logistics (eFreight), in particular :

- The availability of relevant ITS technologies to and their use by ITS application developers
 - The integration of localisation results [(through e.g. RFID and/or Galileo/EGNOS)] in the traffic management tools and centres
- (c) The definition of the necessary measures to develop an ITS architecture for urban mobility including an integrated and multi-modal approach for travel planning, transport demand and traffic management, in particular:
- The availability of public transport, travel planning, transport demand, traffic data and parking data to urban control centres
 - The facilitation of the electronic data exchange between the different urban control centres for public or private transport and through all possible transport modes
 - The integration of all relevant data and information in a single architecture

(3) Road safety and security

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

- (a) The definition of the necessary measures for the harmonised introduction of pan-European eCall, including:
- The availability of the required in-vehicle ITS data to be exchanged
 - The availability of the necessary equipment in the road infrastructure (rescue) centres (Public Service Access Points) receiving the data emitted from the vehicles
 - The facilitation of the electronic data exchange between the vehicles and the road infrastructure (rescue) centres (Public Service Access Points)
- (b) The definition of the necessary measures to ~~guarantee~~**protect** the safety of road users with respect to their on-board Human-Machine-Interface and the use of nomadic devices, as well as the security of the in-vehicle communications
- (c) The definition of the necessary measures to ~~guarantee~~**protect** the safety and comfort of vulnerable road users for all ITS applications
- (d) The definition of the necessary measures to provide secure parking places for truck and commercial vehicles and ITS based parking and reservation systems, in particular:
- [The availability of sufficient parking facilities]
 - 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

(e) **The definition of necessary measures for advanced driver safety systems**

(4) Integration of the vehicle into the transport infrastructure

The specifications for ITS for integration of the vehicle into the transport infrastructure shall include the following:

- (a) The definition of necessary measures to integrate different ITS applications on an open in-vehicle platform, based in particular on:
- The identification of functional requirements of existing or planned ITS applications
 - The definition of an open-system architecture that guarantees 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~~, ~~vehicle~~-infrastructure, **infrastructure-infrastructure**) systems, in particular:

- 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

**GUIDELINES FOR THE CONTENT OF REPORTS ON NATIONAL ITS
ACTIONS REFERRED TO IN ARTICLE 10**

- (1) The reports with regard to the priority areas laid down in Article 4(1) provided by the Member States according to Article 10 shall cover the national level. They can however be extended to the regional and/or selected local level, if relevant.

- (2) The report to be provided according to Article 10 (1) shall include, at least, the following information:
 - (a) the current national strategy with regard to ITS

 - (b) its objectives and their underlying rationale

 - (c) a brief description of the status of ITS deployment and framework conditions

 - (d) priority areas for current actions and related measures

 - (e) an indication as to how this strategy and these actions or measures support the coordinated and interoperable deployment of ITS applications and continuity of services in the Community (see Article 4(1)).

- (3) The report to be provided according to Article 10 (2) shall include, at least, the following information:
 - (a) the national strategy with regard to ITS, including its objectives

 - (b) a detailed description of ITS deployment and framework conditions

- (c) the planned priority areas for actions and related measures, including an indication on how these tackle the priority areas laid down in Article 4(1)

 - (d) details on the implementation of current and planned actions as regards
 - Instruments
 - Resources
 - Consultation and active stakeholders
 - Milestones
 - Monitoring
-