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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**

**{SEC(2008)3083}
{SEC(2008)3084}**

(presented by the Commission)

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EXPLANATORY MEMORANDUM

1. CONTEXT OF THE PROPOSAL

• Grounds for and objectives of the proposal

The Mid-term review of the European Commission's White Paper on Transport Policy suggests that innovation will play a significant part in making road transport more sustainable (i.e. safe, efficient, clean and seamless), in particular by applying information and communication technologies: **Intelligent Transport Systems**.

However, take-up of ITS solutions in road transport has been slower than expected and, in general, services are being deployed on a fragmented basis. This has led to a patchwork of national, regional and local solutions without clear harmonisation, endangering the integrity of the single market. As a consequence, inefficient use is being made of ITS which cannot therefore contribute effectively achieving (transport) policy objectives and mastering the increasing challenges facing road transport.

The general objective of this proposal is to establish a framework to accelerate and coordinate the deployment and use of Intelligent Transport Systems applied to road transport, including the interfaces with other transport modes (ITS) in order to support a more efficient and environmentally friendly, safer and more secure freight and passenger mobility in the European Union. Specific objectives include increasing system interoperability, ensuring seamless access, fostering continuity of services and setting up an efficient co-operation mechanism between all ITS stakeholders. In accordance with the principle of subsidiarity, the use of a (framework) directive is considered to be the most appropriate form to achieve the intended purpose. The technical details for the implementation, i.e. procedures and specifications, however, will be adopted by the Commission assisted by a Committee composed of Member States representatives. Without prejudice to the role of this Committee the Commission shall establish a European ITS Advisory Group to which representatives of relevant ITS stakeholders shall be invited and which will advise the Commission on business and technical aspects of the implementation and deployment of ITS in the EU.

• General context

The increasing congestion on our transport system (freight road transport is expected to increase by 55% and passenger road transport by 36 % by 2020) and the related energy consumption and negative environmental impacts (CO₂ emissions from transport will grow a further 15% by 2020) call for an innovative approach to respond to the growing needs and requirements for transportation and mobility. Traditional measures such as the expansion of the existing transport networks will not be feasible to this extent and new solutions need to be found.

In the past the Commission has given substantial support to ITS for road-related research and development work and first application of research results was done through the "Euro-regional" ITS deployment projects financed as part of the Trans-European Transport Network Programme.

One of the key proposals under i2010 is the Intelligent Car Initiative which aims to reduce road accidents, congestion and gridlock, and to lower fuel consumption and CO₂ emissions:

Electronic Stability Control (ESC) reduces accidents by helping drivers control their car when it skids, e-call aims to employ a hardware black box installed in vehicles that will wirelessly send airbag deployment and impact sensor information as well as localisation coordinates to local emergency agencies.

- **Existing provisions in the area of the proposal**

The present proposal focuses on ITS applications and services connected with road transport, including their interfaces with other transport modes. Similar initiatives focussing on other transport modes include the Single European Sky ATM Research (SESAR) for air transport, the European Rail Traffic Management System (ERTMS) for rail transport and the River Information Services (RIS) for inland waterway transport. Shipping has already introduced SafeSeaNet and Vessel Traffic Monitoring and Information Systems (VTMIS) and is progressing towards an Automatic Identification System (AIS) and Long -Range Identification and Tracking (LRIT).

A number of provisions also exist in road transport, notably Directive 2004/52/EC on electronic toll collection, Regulation (EEC) 3821/85 on recording equipment in road transport and Directive 2007/46/EC on a framework for the approval of motor vehicles and their trailers, and of systems, components and separate technical units intended for such vehicles. A clear coherence with the work of the relevant committees will be ensured.

- **Consistency with the other policies and objectives of the Union**

The proposal will support several of the (microeconomic) objectives of the Lisbon Strategy for growth and jobs. Foremost it will contribute to the objective of facilitating the spread and effective use of ITS. It will further contribute to the objectives of:

- facilitating all forms of innovation: cross-border knowledge transfer on ITS effective deployment
- expanding, improving and linking up European infrastructure and completing priority cross border projects: considering the case for appropriate infrastructure pricing systems
- encouraging the sustainable use of resources and strengthening the synergies between environmental protection and growth, especially promoting the development of means to internalise external costs
- increasing and improving investment in R&D, in particular by private business: better framework conditions for the exploitation of innovative ITS solutions

In the revision of the White Paper on Transport Policy of 2006, the Commission highlighted traffic congestion, energy security and climate change as the major challenges for transport in the European Union. New policy guidelines on efficiency, innovation, logistics and the greening of transport emerged from this revision and are fully in line with the core of the **Lisbon Strategy**.

The Communication on **Greening Transport**, adopted by the Commission in July 2008 (COM 2008(433)) provides in Chapter 4 for an **Action Plan on ITS for Road**, accompanied by a legislative initiative setting out a common approach to getting existing technologies onto

the market and in use. In addition, using existing infrastructure more efficiently will mean that less new infrastructure will be needed, avoiding habitat fragmentation and soil sealing.

This proposal also fits in with the **EU Sustainable Development Strategy** as it addresses several of the key issues identified in the 2005 review process as needing a stronger impetus. The key link between them is the aim to make transport more sustainable, e.g. to meet the objective of improving transport demand management and helping to meet the road safety objective of halving the number of road deaths by 2010 (compared to 2000). Further issues that will be addressed indirectly are reducing EU energy consumption, thus also limiting climate change effects.

Furthermore the proposal supports the implementation of Regulation (EC) 1/2005 on the protection of animals during transport and related operations (navigation systems).

2. CONSULTATION OF INTERESTED PARTIES AND IMPACT ASSESSMENT

• Consultation of interested parties

Consultation methods, main sectors targeted and general profile of respondents

Thirteen interviews with high-level experts and personalities from private and public stakeholder organisations were organised between November 2007 and the end of January 2008. These interviews led to an initial inventory of observations on factors impeding wider ITS deployment and market penetration. Potential actions that could be undertaken to achieve a faster uptake of ITS were addressed as well.

To discuss and consolidate these findings, two public workshops were held (22 February 2008 and 26 March 2008) with a total of more than 200 participants. These were complemented by an eSafety Forum session (Ljubljana, 25 April 2008).

An open consultation was conducted over the internet from 29/02/2008 to 31/03/2008. The results are available on http://ec.europa.eu/transport/road/consultations/its_en.htm.

Finally, Member States' delegates discussed the rationale behind specific proposed actions at a meeting in Brussels on 26 May 2008.

Summary of responses and how they have been taken into account

The interviews led to the following main conclusions:

- Market penetration: ITS deployment needs to be accelerated especially in the fields of urban and freight transport. This deployment should be policy-driven and aim at reaching a higher utilisation of the existing infrastructure capacity whilst increasing the efficiency and safety of transport operations.
- Implementation requirements: interoperability of applications and services needs to be agreed at Europe-wide level to enable seamless services across borders. This includes the harmonisation, and wherever appropriate, the standardisation of rules and procedures for data collection and processing.

- Deployment strategy: the wide deployment and integration of in-car services (e.g. speed alert, eCall, real-time traffic information) requires an overall strategy and concerted actions supported by leading stakeholders from industry, road authorities and network operators alike.
- Stakeholder coordination: a cross-sector coordination group involving all major players - application developers, industry and public authorities - is required in order to progress from intentions into effective realisations.

These conclusions were endorsed, and at parts extended, by the outcome of the workshops as follows:

- Implementation strategy: this should take the form of a detailed roadmap indicating clearly the actions envisaged and the responsibilities of the different players - Commission, public authorities, industry, etc. Wherever relevant, the actions should be backed by an appropriate legal basis. On specific applications and services the following aspects were deemed relevant:
 - (1) Human Machine Interaction (HMI): there is a need for standardised platforms and interfaces due to the safety implications
 - (2) Vehicle safety systems: co-operative systems (where vehicles and infrastructure interact via mobile communications) require synchronised deployment in the vehicle and on the infrastructure
 - (3) eCall: should not be introduced as a stand alone application
 - (4) Electronic payment: nation-wide and cross-border enforcement of electronic toll collection is deemed important to ensure that all commercial transport users are charged in a fair and equitable manner
 - (5) Traffic management: the complexity of road traffic management operations, encompassing both public and private means of road transport and their interfaces with other transport modes, call for new, more holistic, system - based traffic management and control approaches. A wide platform for the exchange of information between the relevant parties - network and service operators, road authorities, regional/local authorities - is deemed crucial to the fulfilment of such an ambitious goal.
- Roadmap concertation and coordination: whilst there is a clear need for an EU coordination structure, this should not overlap with existing similar bodies, such as the eSafety Forum, ERTICO etc.
- Business cases: the development of business cases for well identifying cooperation between private and public sectors in regard to ITS applications and services is considered to be a priority.

All these elements and contributions were duly considered in the actions that follow (cf the ITS Action Plan).

- **Collection and use of expertise**

Scientific/expertise domains concerned

Intelligent Transport Systems

Methodology used

Stakeholder interviews and workshops; meetings with experts from the Member States; a Preparatory Study for an Impact Assessment on the EC ITS Action Plan

Main organisations/experts consulted

Senior consultants from COWI-ECORYS and from Ankerbold Consulting were used respectively for the Preparatory study for an Impact Assessment and for conducting interviews with the stakeholders.

Thirteen interviews were organised between November 2007 and January 2008 with high - level experts and personalities from the following stakeholder communities: national ministries of transport, government -owned development and deployment agencies for ITS, city authority, membership -based international organisation bringing partners together to develop ITS-based services, toll motorway operators, ITS -based information service provider, membership-based organisation representing the heavy road transport industry, representatives of the Directors of the National Road Authorities, mobile telecommunications operator, a supplier of electronic components to the automotive industry and automobile and truck industry.

To consolidate the findings of these interviews, two workshops were held, one on 22 February and one on 26 March 2008 with more than 200 participants in total. This was complemented by a dedicated eSafety Forum¹ meeting in Ljubljana on 25 April 2008.

Finally Member States delegates discussed the rationale behind specific actions presented at a meeting in Brussels on 26 May 2008.

Summary of advice received and used

A faster and more coordinated deployment of ITS for road in Europe requires the establishment of a broad coordination structure, and a formal forum involving all stakeholders where public authorities and commercial actors can meet to discuss consensus -building activities to foster public-private collaboration. Where suitable platforms have not yet been developed, the organisation of "round tables" to gain consensus is recommended. Some form of ITS governance structure is needed, with a hierarchy of panels for consensus-building and coordination of ITS deployment at the local/regional, national and European levels.

Means used to make the expert advice publicly available

A summary of the results of the first round stakeholder's consultation is available on the internet:

http://ec.europa.eu/transport/road/consultations/its_en.htm.

¹ www.esafetysupport.org/en/news/esafety_forum_comments_on_ec_its_action_plan.htm

- **Impact assessment**

The impact analysis considers three policy options:

Option A: No additional new action

This option takes into account on-going Commission actions, e.g. specific research, Intelligent Car Initiative (research, technical harmonisation and awareness), support to deployment (EasyWay, CIVITAS), isolated standardisation and consultation of stakeholders. The Commission's services will continue financial support for research and deployment, voluntary agreements, specific standardisation mandates and (limited) regulative work – but, there is little coordination between the public and private sector and between Member States.

Continuing with this approach will ultimately result into the continuation of the current fragmentation of ITS applications and services across borders, leading to unbalanced deployment and a lack of continuity of ITS services throughout the Union.

Option B: Overcoming problems by concentrating on co-ordination and synergy measures

Option B will focus on the following main priority actions:

- (1) definition of a **functional open in-vehicle platform** allowing the multiple use of key components (communication technologies, positioning, processing power and Human Machine Interface)
- (2) setting up of a **High Level Group** as a forum for ITS stakeholders to exchange information, establish a general vision and producing guidelines relating to ITS deployment and to advise the Commission
- (3) definition of a framework for optimised use of **road and traffic data**
- (4) development of a framework for the **continuity of ITS services** (e.g. interfaces between interurban and urban transport)
- (5) tackling of data security and protection, **privacy and liability issues**

Under this option horizontal issues indirectly affecting the take up of ITS will be addressed with a focus on improved concertation among all stakeholders. It is expected that top-down steering will be constructive and effective, resulting in synchronised actions that will allow individual ITS services to penetrate the market in a more harmonised and better-supported way than in the baseline scenario A.

Option B will make use of the instruments available to the Commission services to support joint requests for standardisation and identify and prioritise requirements for financial support or legislative work.

Option B+: Option B extended with a Directive and a comitology procedure

Option B+ builds on the same measures as option B but formalises the co-operation and coordination aspect. The ITS High Level Group would be replaced by

- (1) a **European ITS Committee**, constituted of Member States representatives to assist the Commission in adopting specific measures in defined areas (corresponding to the basic enabling measures of option B) via a comitology procedure, and
- (2) an **ITS Advisory Group** constituted of high level representatives from different relevant sectors (i.e. ITS service providers, associations of users, transport and facilities operators, manufacturing industry, social partners, existing professional associations, etc...), advising the Commission on business and technical aspects and discussing provider and user requirements and priorities.

The Commission, assisted by the European ITS Committee would

- within its mandate, and where necessary, decide on specific actions for:
 - (1) the establishment of procedures and specifications, in particular for the accelerated deployment and use of traffic and travel data, European road traffic management, continuity of ITS services for freight and passengers, road safety and security, the definition of an open in-vehicle platform for ITS Services, including notably the use of a standardisation process (CEN/CENELEC/ETSI)
 - (2) type-approval of road-infrastructure-related ITS equipment and software, falling outside the scope of Directives 2002/24/EC, 2003/37/EC and 2007/46/EC.²
- exchange information with Member States.

Proposing secondary legislation via the comitology procedure would allow the Commission to assert effective coordination among stakeholders to remove existing bottlenecks and barriers.

The main difference between B and B+ is the adoption of a Directive putting obligations on the member states on the main priority areas defined under Option B, and the replacement of the High Level Group by the European ITS Committee assisting the Commission through comitology procedure. Considering both the direct impact (boosting uptake of ITS) and indirect impact (support for formation of economical, societal and environmental policies) **the preferred option is Option B+**, because it will have more impact than the other options, especially as regards co-operation and the potential for more rapid agreements on particular issues hampering deployment of ITS across Europe. The positive effects anticipated on congestion, road safety and emissions will thus be reached earlier.

² ITS are also covered by legislations related respectively to radio and telecommunications equipment (Directive R&TTE 1999/5/EC), to electromagnetic compatibility (Directive EMC 2004/108), to electrical equipment (Directive LVD 2006/95), to a common regulatory framework for electronic communications networks and services ([Directive 2002/21/EC](#)), to the authorisation of electronic communications networks and services ([Directive 2002/20/EC](#)) and to the access to, and interconnection of, electronic communications networks and associated facilities compatibility ([2002/19/EC](#)). Similar provisions are needed for road-infrastructure-related ITS equipment and software.

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3. LEGAL ELEMENTS OF THE PROPOSAL

- **Summary of the proposed action**

The proposed ITS Action Plan outlines priority areas to accelerate the coordinated deployment of ITS applications and services across the European Union.

The proposed Directive provides a framework for the implementation of this ITS Action Plan. The obligations imposed to the Member States through the Directive, will be supported by the Commission through the establishment, through comitology, of common specifications aimed at ensuring the EU-wide coordinated deployment of interoperable ITS. This work shall be carried out by the Commission, assisted by a European ITS Committee. This also provides for a framework for the exchange of information with the Member States.

Without prejudice to the role of the Committee the Commission shall establish an ITS Advisory Group composed of high level executives representing stakeholders from the most important areas (ITS service providers, associations of users, transport and facilities operators, manufacturing industry, social partners, professional associations) and which shall advise the Commission on business and technical aspects of the deployment and use of ITS in the European Union. This ITS Advisory Group will collect and compile input from existing fora such as the eSafety Forum, ERTRAC etc.

- **Legal basis**

Articles 71(1) of the Treaty establishing the European Community

- **Subsidiarity principle**

The subsidiarity principle applies insofar as the proposal does not fall under the exclusive competence of the Community.

The proposal respects the principle of subsidiarity because it addresses trans-national aspects that cannot be satisfactorily regulated by Member States such as the interoperability of equipment as well as establishing an internal market for ITS services. First of all, the action mainly concerns a trans-national deployment to achieve European and/or harmonised cross-border services for traffic and travel information and traffic management. Secondly, if no further Union action would be taken Member States would continue to develop and implement individual solutions, potentially creating a fragmented technological spectrum that might endanger future harmonisation and standardisation, or that would lead to lengthy processes for interoperability (as the European Electronic Toll Service shows). A further deterioration of the road traffic situation (accidents, congestion, cross-border discontinuity) would conflict with the requirements of the Treaty (especially Art. 70 "Common Transport Policy" and Art. 154 "promoting the interconnection and interoperability of national networks"). Thirdly, action at Community level is required and would have clear benefits for reason of effects (e.g. of common rules on liability as well as data security and privacy) or scale (e.g. through cost reductions for ITS applications due to common specifications and allowing for economies of scale). The objective of the proposed action can therefore only be achieved at Community level on the basis of a Community legal act

- **Proportionality principle**

The proposal complies with the proportionality principle for the following reasons:

The adoption of all the necessary detailed specifications by the Council and the European Parliament, on an individual basis wouldn't be practicable nor time-efficient. The Commission's involvement is limited to the minimum required for achieving the objectives of the proposal and does not go beyond what is necessary for that purpose. It is limited, in support of the Member States, to the definition, with the assistance of the European ITS Committee, of procedures and specifications in well identify priority areas that require a supra-national approach. Less conferred power would endanger an EU-wide integrated and coordinated deployment of interoperable ITS in road transport and their interfaces with other transport modes. The proposal complies with the proportionality principle.

The financial and administrative burden of this proposal is limited to travel expenses for the meetings of the Committee and of the Advisory Group.

- **Choice of instruments**

Proposed instrument: Directive.

Other means would not be adequate for the following reasons:

The self-regulatory approach pursued so far by Industry is not sufficient and calls for binding provisions at European level.

A regulation would be too prescriptive, considering that many of the required actions for the optimal levels of deployment of ITS may vary from country to country. On the other hand, soft measures, including recommendations and support to co-ordination, would not directly result in a general improvement of accelerated and coordinated deployment and use of Intelligent Transport Systems applied to road transport, including interfaces with other transport modes.

Users as well as manufacturers of hardware and software require a certain level of "security" with respect to the services to be provided, and the related equipment to deliver or consume these.

Therefore the issue calls for a legal framework at European level, where a Directive will enable Member States to adjust the established and agreed framework according to their individual needs.

A Directive is the most appropriate instrument, as the obligations imposed to the Member States recognise the different levels of ITS use and deployments, allowing them to concentrate on their priorities for implementing, while at the same time, leaving the power and responsibility to the Commission to define, with the European ITS Committee, the technical details (i.e. procedures and specifications) in support of the implementation of the Directive.

4. BUDGETARY IMPLICATION

Reimbursement of travel expenses (European ITS Committee and the Advisory Group 4 meetings a year each): 122.200,00 €

5. ADDITIONAL INFORMATION

- **European Economic Area**

The proposed act concerns an EEA matter and should therefore extend to the European Economic Area.

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 Commission ³,

Having regard to the opinion of the European Economic and Social Committee ⁴,

Having regard to the opinion of the Committee of the Regions ⁵,

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.
- (3) 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 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,

³ OJ C , , p . .

⁴ OJ C , , p . .

⁵ OJ C , , p . .

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 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 initiative⁶, 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.
- (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 data⁷ 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 sector⁸.
- (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.⁹
- (11) Directive 2007/46/EC¹⁰ 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/EC¹¹ and 2003/37/EC¹² relate to the type approval of two or three-wheel motor vehicles and agricultural or forestry

⁶ http://www.esafetysupport.org/download/European_Commission/048-esafety.pdf

⁷ OJ L 281, 23.11.1995, p. 31.

⁸ OJ L 201, 31.7.2002, p. 37.

⁹ OJ L 345, 31.12.2003, p.90

¹⁰ OJ L 263, 09.10.2007, p. 1

¹¹ OJ L 124, 09.05.2002, p. 1

¹² OJ L 171; 09.07.2003, p. 1

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.

- (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 used ¹³.
- (13) Major stakeholders such as ITS service provider s, 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. ¹⁴
- (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.
- (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 Community ¹⁵, the Committee set up by Council Regulation (EEC) (No) 3821/85 on recording equipment in road transport ¹⁶, 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 vehicles ¹⁷.
- (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,

¹³ 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.

¹⁴ OJ L 184, 17.7.1999, p. 23.

¹⁵ OJ L 166, 30.04.2004, p. 124.

¹⁶ OJ L 370, 31.12.1985, p. 8.

¹⁷ OJ L 263, 9.10.2007, p. 1,

HAS ADOPTED THIS DIRECTIVE:

Article 1

Subject matter and scope

This Directive establishes a framework for the coordinated deployment and use of intelligent transport systems within the Community and the development of the specifications necessary for that purpose.

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

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 support of road transport (including infrastructure, vehicles and users) and for 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 deployment 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 to be used while driving, such as a mobile phone, navigation system or pocket personal computer;
- (h) "platform" means the encompassing functional, technical and operational environment enabling the deployment, provision or exploitation of ITS applications and services.

Article 3

Deployment of ITS

1. Member States shall take the necessary measures to ensure the coordinated deployment and use of interoperable ITS applications and services within the Community.
2. Member States shall in particular:
 - (a) ensure that reliable and regularly updated relevant road transport data is made available to ITS users and ITS service providers;
 - (b) ensure that 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;
 - (c) take the necessary measures to integrate 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.
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.
4. When adopting the measures provided for in paragraphs 1 and 2 Member States shall take into account the principles set out in Annex I

Article 4

Specifications

1. The Commission shall define specifications for the deployment and use of ITS, in particular in the following priority areas:
 - (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 ;
 - (c) road safety and security;
 - (d) integration of the vehicle into the transport infrastructure .
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.

3. Those 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).

Article 5

Type-approval of road infrastructure related ITS equipment and software

1. Where necessary for efficiency, including energy efficiency, safety or security, or environmental protection reasons 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.
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.

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 ITS data and records are protected against misuse, including unlawful access, alteration or loss.
3. Directive 2003/98/EC¹⁸ shall apply.

Article 7

Amendment procedure

The Commission may amend the Annexes in order to reflect the experience gained from the application of this Directive and may further adapt the Annexes to technical progress.

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

¹⁸ OJ L 345, 31.12.2003, p. 90

Article 8

Committee

1. The Commission shall be assisted by a committee, called the *European ITS Committee (EIC)*, hereafter referred to as "the Committee", composed of representatives of the Member States and chaired by a representative of the Commission.
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.

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 *[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 4(1) 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 their plans for national ITS actions over the following five years including at least the information set out in Annex III.
3. Member States shall report annually thereafter on the progress made in the implementation of these plans.
4. The Commission shall report bi-annually to the European Parliament and to the Council.

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. They shall forthwith communicate to the

Commission the text of those provisions and a correlation table between those provisions and this Directive.

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

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

Article 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*

ANNEX I

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. .

ANNEX II

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 of accurate public road and real-time traffic data used for real-time traffic and travel information to ITS service providers
 - 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 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 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
 - The use of standardised information flows or traffic interfaces between the relevant traffic information/control centres
- (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 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 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

(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 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

ANNEX III

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

LEGISLATIVE FINANCIAL STATEMENT

1. **NAME OF THE PROPOSAL: 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**

2. **ABM / ABB FRAMEWORK**

Title 6: Energy and Transport

3. **BUDGET LINES**

3.1. **Budget lines (operational lines and related technical and administrative assistance lines (ex-B..A lines) including headings:**

3.2. **Duration of the action and of the financial impact:**

3.3. **Budgetary characteristics:**

Budget line	Type of expenditure	New	EFTA contribution	Contributions from applicant countries	Heading in financial perspective

4. SUMMARY OF RESOURCES

4.1. Financial Resources

4.1.1. Summary of commitment appropriations (CA) and payment appropriations (PA)

EUR million (to 3 decimal places)

Expenditure type	Section no.		2010	2011	2012	2013	2014	2015 and later	Total
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Operational expenditure¹⁹

Commitment Appropriations (CA)	8.1.	a							
Payment Appropriations (PA)		b							

Administrative expenditure within reference amount²⁰

Technical & administrative assistance (NDA)	8.2.4.	c							
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TOTAL REFERENCE AMOUNT

Commitment Appropriations		a+c							
Payment Appropriations		b+c							

Administrative expenditure not included in reference amount²¹

Human resources and associated expenditure (NDA)	8.2.5.	d	0.101	0.101	0.101	0.101	0.101	0.101	0.606
Administrative costs, other than human resources and associated costs, not included in reference amount (NDA)	8.2.6.	e	0.122	0.122	0.122	0.122	0.122	0.122	0.732

Total indicative financial cost of intervention

TOTAL CA including cost of Human Resources		a+c +d +e	0.223	0.223	0.223	0.223	0.223	0.223	1.338
TOTAL PA including cost of Human Resources		b+c +d +e	0.223	0.223	0.223	0.223	0.223	0.223	1.338

¹⁹ Expenditure that does not fall under Chapter xx 01 of the Title xx concerned.

²⁰ Expenditure within article xx 01 04 of Title xx.

²¹ Expenditure within chapter xx 01 other than articles xx 01 04 or xx 01 05.

Co-financing details

If the proposal involves co-financing by Member States, or other bodies (please specify which), an estimate of the level of this co-financing should be indicated in the table below (additional lines may be added if different bodies are foreseen for the provision of the co-financing):

EUR million (to 3 decimal places)

Co-financing body		2010	2011	2012	2013	2014	2015 and later	Total
.....	f							
TOTAL CA including co-financing	a+c +d +e +f	0.223	0.223	0.223	0.223	0.223	0.223	1.338

4.1.2. Compatibility with Financial Programming

- .. Proposal is compatible with existing financial programming.
- .. Proposal will entail reprogramming of the relevant heading in the financial perspective.
- .. Proposal may require application of the provisions of the Interinstitutional Agreement²² (i.e. flexibility instrument or revision of the financial perspective).

4.1.3. Financial impact on Revenue

- .. Proposal has no financial implications on revenue
- .. Proposal has financial impact – the effect on revenue is as follows:

EUR million (to one decimal place)

		Prior to action [Year n-1]	Situation following action					
Budget line	Revenue		2010	2011	2012	2013	2014	2015
	a) Revenue in absolute terms							
	b) Change in revenue	D						

²² See points 19 and 24 of the Interinstitutional agreement.

4.2. Human Resources FTE (including officials, temporary and external staff) – see detail under point 8.2.1.

Annual requirements	2010	2011	2012	2013	2014	2015 and later
Total number of human resources	0,83	0,83	0,83	0,83	0,83	0,83

5. CHARACTERISTICS AND OBJECTIVES

5.1. Need to be met in the short or long term

5.2. Value-added of Community involvement and coherence of the proposal with other financial instruments and possible synergy

5.3. Objectives, expected results and related indicators of the proposal in the context of the ABM framework

5.4. Method of Implementation (indicative)

X *Centralised Management*

X directly by the Commission

.. indirectly by delegation to:

.. executive Agencies

.. bodies set up by the Communities as referred to in art. 185 of the Financial Regulation

.. national public-sector bodies/bodies with public -service mission

.. *Shared or decentralised management*

.. with Member states

.. with Third countries

.. *Joint management with international organisations (please specify)*

Relevant comments:

6. MONITORING AND EVALUATION

6.1. Monitoring system

6.2. Evaluation

6.2.1. *Ex-ante evaluation*

6.2.2. *Measures taken following an intermediate/ex -post evaluation (lessons learned from similar experiences in the past)*

6.2.3. *Terms and frequency of future evaluation*

7. ANTI-FRAUD MEASURES

Not applicable

8. DETAILS OF RESOURCES

8.1. Objectives of the proposal in terms of their financial cost²³

Commitment appropriations in EUR million (to 3 decimal places)

(Headings of Objectives, actions and outputs should be provided)	Type of output	Av. cost	2010		2011		2012		2013		2014		2015 and later		TOTAL	
			No. outputs	Total cost	No. outputs	Total cost	No. outputs	Total cost	No. outputs	Total cost	No. outputs	Total cost	No. outputs	Total cost	No. outputs	Total cost
OPERATIONAL OBJECTIVE No.1 ²⁴																
Action 1																
- Output 1																
- Output 2																
Action 2																
- Output 1																
Sub-total Objective 1																
OPERATIONAL OBJECTIVE No.2 ¹																

²³ For information: A budget of 300 mio € for ITS Road specific projects has been programmed within the Multi-annual Programme of the Trans-European Transport Network for the years 2007-2013.

²⁴ As described under Section 5.3

Action 1.....																
- Output 1																
Sub-total Objective 2																
OPERATIONAL OBJECTIVE No.n 1																
Sub-total Objective n																
TOTAL COST																

8.2. Administrative Expenditure

8.2.1. Number and type of human resources

Types of post		Staff to be assigned to management of the action using existing and/or additional resources (number of posts/FTEs)					
		2010	2011	2012	2013	2014	2015
Officials or temporary staff ²⁵ (XX 01 01)	A*/AD	0,50	0,50	0,50	0,50	0,50	0,50
	B*, C*/AST	0,33	0,33	0,33	0,33	0,33	0,33
Staff financed ²⁶ by art. XX 01 02							
Other staff ²⁷ financed by art. XX 01 04/05							
TOTAL		0,83	0,83	0,83	0,83	0,83	0,83

8.2.2. Description of tasks deriving from the action

8.2.3. Sources of human resources (statutory)

- .. Posts currently allocated to the management of the programme to be replaced or extended
- .. Posts pre-allocated within the APS/PDB exercise for year n
- .. Posts to be requested in the next APS/PDB procedure
- X Posts to be redeployed using existing resources within the managing service (internal redeployment)
- .. Posts required for year n although not foreseen in the APS/PDB exercise of the year in question

²⁵ Cost of which is NOT covered by the reference amount

²⁶ Cost of which is NOT covered by the reference amount

²⁷ Cost of which is included within the reference amount

8.2.4. *Other Administrative expenditure included in reference amount (XX 01 04/05 – Expenditure on administrative management)*

EUR million (to 3 decimal places)

Budget line (number and heading)	2010	2011	2012	2013	2014	2015 and later	TOTAL
1 Technical and administrative assistance (including related staff costs)							
Executive agencies ²⁸							
Other technical and administrative assistance							
- <i>intra muros</i>							
- <i>extra muros</i>							
Total Technical and administrative assistance							

8.2.5. *Financial cost of human resources and associated costs not included in the reference amount*

EUR million (to 3 decimal places)

Type of human resources	2010	2011	2012	2013	2014	2015 and later
Officials and temporary staff (XX 01 01)	0.101	0.101	0.101	0.101	0.101	0.101
Staff financed by Art XX 01 02 (auxiliary, END, contract staff, etc.) (specify budget line)						
Total cost of Human Resources and associated costs (NOT in reference amount)	0.101	0.101	0.101	0.101	0.101	0.101

Calculation– *Officials and Temporary agents*

²⁸ Reference should be made to the specific legislative financial statement for the Executive Agency(ies) concerned.

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Calculation – <i>Staff financed under art. XX 01 02</i>

8.2.6. *Other administrative expenditure not included in reference amount*

EUR million (to 3 decimal places)

	2010	2011	2012	2013	2014	2015 and later	TOTAL
XX 01 02 11 01 – Missions							
XX 01 02 11 02 – Meetings & Conferences	0.052	0.052	0.052	0.052	0.052	0.052	0.312
XX 01 02 11 03 – Committees ²⁹	0.070	0.070	0.070	0.070	0.070	0.070	0.420
XX 01 02 11 04 – Studies & consultations							
XX 01 02 11 05 - Information systems							
2 Total Other Management Expenditure (XX 01 02 11)							
3 Other expenditure of an administrative nature (specify including reference to budget line)							
Total Administrative expenditure, other than human resources and associated costs (NOT included in reference amount)	0.122	0,122	0,122	0,122	0,122	0,122	0.732

Calculation - <i>Other administrative expenditure <u>not</u> included in reference amount</i>

²⁹ ITS Committee of Comitology

The needs for human and administrative resources shall be covered within the allocation that can be granted to the managing DG in the framework of the annual procedure in the light of budgetary constraints.