Framework for the deployment of ITS in Europe – State of Play

ITS Action Plan
Directive 2010/40/EU

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Outline

- The European Transport policy
- ITS deployment - Situation today
- Policy framework for ITS deployment
EU 2020 Strategy

- Lead Europe out of the economic and financial crisis
- More jobs and higher quality of life in the long-term
- **3 mutually reinforcing priorities**:
  - **Smart growth**: Knowledge and Innovation
  - **Sustainable growth**: ecology and competitiveness
  - **Inclusive growth**: employment and social / territorial cohesion
EU 2020 – Flagship Initiatives

Seven flagship initiatives:

» **Innovation Union**: better conditions and funding for research and innovation

» **Digital Agenda for Europe**: extension of fast Internet access and digital common market

» **Resource-efficient Europe**: decoupling of growth and resource use, renewable energies and energy efficiency, modernisation of the transport sector

» **An industrial policy for the globalisation era**: to improve the business environment and to support the development of a strong and sustainable industrial base

» **Youth on the move**

» **An agenda for new skills and jobs**

» **European platform against poverty**
White Paper 2011 on Transport: a roadmap to a Single European Transport System

...that is
- Sustainable
- Integrated (all modes)
- User-friendly
- Technology led (ITS)

and that enhances
- Economic progress
- Competitive growth (Single Market)
- Efficient use of Resources
- Use of cleaner fuels, reduction of oil dependency
White Paper 2011 on Transport (2)
a vision for the transport system of 2050

Establishing
- A global level-playing field for long-distance travel and intercontinental freight
- An efficient core network for multimodal intercity travel and transport, well connected to local systems
- Clean urban transport and commuting

> Focus on a single, integrated & intelligent infrastructure

- 10 goals formulated related to:
  » develop & deploy new & sustainable propulsion systems
  » optimising performance of multimodal logistic chains
  » increasing the efficiency of transport & infrastructure use

- 40 actions clustered around 4 “I” s:
### How to do it – The 4 “i”s and 40 actions

<table>
<thead>
<tr>
<th><strong>Internal market:</strong></th>
<th>Create a genuine Single European Transport Area by eliminating all residual barriers between modes and national systems.</th>
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<tbody>
<tr>
<td><strong>Innovation:</strong></td>
<td>EU research needs to address the full cycle of research, innovation and deployment in an integrated way.</td>
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<td><strong>Infrastructure:</strong></td>
<td>EU transport infrastructure policy needs a common vision and sufficient resources. The costs of transport should be reflected in its price in an undistorted way.</td>
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<td><strong>International:</strong></td>
<td>Opening up third country markets in transport services, products and investments continues to have high priority.</td>
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Internal market

- **Single European Railway Area**
- Complete modernisation of Europe’s air traffic control system by 2020 (**SESAR**)
- Ensure the full interoperability between ICT systems in the waterborne sectors, guarantee the monitoring of vessels and freight (**Blue Belt**)
- **e-Freight** initiative for paperless and intelligent logistics
- Towards a ‘zero-vision’ on road safety
- Access to real time **travel and traffic information** to facilitate multi-modal travel planning and integrated ticketing
- Further consolidation of **passengers’ rights** legislation
Innovation

- **Technology Roadmap**: in the areas of clean, safe and silent vehicles for all different modes of transport, integrated transport management and information systems, Intelligent infrastructure (both land and space-based)

- **An innovation and deployment strategy**: measures for the deployment of smart mobility systems, definition and deployment of an open standard electronic platform for vehicle on board units, European Integrated Multimodal Information and Management Plan

- **Regulatory framework for innovative transport**: Interface standards for infrastructure-to-infrastructure, vehicle-to-infrastructure, and vehicle-to-vehicle communications

- **Eco-driving and speed limits**
Infrastructure

- Core infrastructure – a European Mobility Network: Deploy large scale intelligent and interoperable technologies (SESAR, ERTMS, RIS, ITS, etc.) to optimise the capacity and the use of infrastructure.

- Single framework for coherent funding: TEN-T, cohesion and structural funds, including the deployment of new technologies (ITS).

- Single management structures for rail freight corridors.

- Guidelines for the application of infrastructure costs to passenger cars (2012). In a second stage, a framework for the internalisation of costs to all road vehicles.
Potential of ITS for road transport

- reduction of **congestion** by 5-15%
  - dynamic traffic & freight management, dynamic navigation, electronic toll collection

- 5-15% less **fatalities** and 5-10% less **injuries**
  - electronic stability control (ESC), lane keeping support, speed alert, emergency call (eCall)

- possible savings of 10-20% **CO₂ emissions**
  - road charging, access management, eco-driving support, multi-modality
Status of ITS Deployment

- Fast technical development > high number of mature applications
- But slow and fragmented uptake across Europe
- Large differences between countries
- Low degree of intermodality

➔ Patchwork of national, regional and local solutions

*main problem drivers identified:*

- lack of interoperability
- lack of effective cooperation
- privacy and liability issues
Policy framework for the deployment of ITS in Europe


**Directive 2010/40/EU**: Framework for the Coordinated and Effective Deployment and Use of Intelligent Transport Systems

Road transport and interfaces with other modes

- coordinate and accelerate deployment of ITS
- make road transport more sustainable
ITS Action Plan

Area 1: Optimal Use of Road, Traffic & Travel Data
- EU-wide real time travel information
- Collection & provision of road data
- Accurate public data for digital maps
- Free minimum information service
- Promotion of multi-modal journey planners

Area 2: Continuity of Traffic & Freight Management
- Continuity of ITS services
- Services for freight transport & logistics
- European ITS Framework architecture
- Interoperability of electronic toll systems

Area 3: Road Safety and Security
- Promotion of in-vehicle safety systems
- Introduction of Europe-wide eCall
- Regulatory Framework on HMI
- Guidelines: Impact on Vulnerable road users

Area 4: Integration of Vehicle & Transport Infrastructure
- Open in-vehicle Platform architecture
- Development & evaluation of coop. systems
- Specifications for V2X, I2X communication
- Guidelines: Secure parking places for trucks

Area 5: Data Protection & Liability
- Security & data protection
- Addressing liability, esp. in-vehicle safety systems
- Mandate for European standardisation

Area 6: European ITS Coordination
- Legal framework for EU ITS cooperation
- Decision support toolkit for ITS investments
- Guidelines for public funding for ITS
- Collaboration platform on urban ITS

European ITS Coordination
- EU-wide real time travel information
- Collection & provision of road data
- Accurate public data for digital maps
- Free minimum information service
- Promotion of multi-modal journey planners
Directive 2010/40/EU

Framework for the Coordinated and Effective Deployment and Use of Intelligent Transport Systems

Objectives

- Establishing a framework for coordinated and effective deployment and use of ITS
- Setting common priorities
- Development of specifications and standards focused on interoperability and continuity

in force since 26 Aug 2010
ITS Directive: Specifications

● Aims: compatibility, interoperability and continuity

● Binding Measures:
  » Adopted as “delegated acts” (Art 290 TFEU)
  » Functional, technical, organisational, service provisions
  » Based on standards (where appropriate)
  » Impact assessment prior to adoption

● Obligations for Member States
  » ensure use of specifications when ITS is deployed
  » cooperate in respect to priority areas
  » deployment obligation only after adoption of co-decision proposal
EU-wide Multi-Modal Travel Information

EU-wide Real-Time Traffic Information

Free safety-related minimum Traffic Info

Interoperable EU-wide eCall

Information & Reservation systems for Truck Parking

SOURCE: European Commission
European ITS Advisory Group
- Service providers
- User associations
- Transport operators
- Industry
- Social partners
- Profess. organisations
- Local authorities
- Other relevant forums

High Level Representatives
- advice on business and technical aspects
- stakeholder interests

Member States

European ITS Committee
- established in Dec 2010
- Chair: Commission

- adoption of work programme
- reporting guidelines
- standardisation mandates
- non-binding measures
- consultation for specifications
- information exchange

Call for application closed
- Chair: Commission
Timeline

- **2010**: Directive in force
  - 27 Aug
  - Work Programme

- **2011**: National Reports
  - Feb
  - Trans-position

- **2012**: First specs to be ready
  - National ITS Plans

- **2013**: COM report
  - Aug
  - Multi-modal travel information

- **2014**: COM Report on Delegation
  - Aug
  - National Reports

- **2015**: COM Report
  - Aug
  - Delegation ends

- **2016**: National Reports
  - Aug
  - eCall
  - Real-time information
  - Free min traffic information
  - Truck parking information

- **2017**: National Reports
  - Aug
  - Truck parking reservation

- **2018**: National Reports
  - Aug
  - Multi-modal travel information
More information

- Directorate-General for Mobility and Transport
  http://ec.europa.eu/transport/index_en.htm
- ITS Action Plan and Directive
  http://ec.europa.eu/transport/its/road/action_plan_en.htm
- White Paper 2011

Thank you for your attention!