Deployment of Intelligent Transport Systems (ITS)

ITS Action Plan and proposed Directive

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Challenges in Road Transport

- **Road congestion** leads to economic losses of about 1% of the GDP (~115 billion €).
- Each year still more than 40,000 citizens are **killed** on the road.
- Road transport accounts for 72% of transport-related **CO₂ emissions**. Transport is the only sector where CO₂ emissions still grow (2010-20: +15%)
Intelligent Transport Systems (ITS)

Examples in road transport

- dynamic traffic management
- real-time traffic information
- satellite navigation, tracking & tracing
- multi-modal journey planners
- electronic toll collection
- in-vehicle safety systems

Use of information and communication technologies in transport, e.g. phones, satellites, computer, sensors
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% **CO$_2$ emissions**
  - road charging, access management, eco-driving support, multi-modality
Current Status of ITS Deployment

- Fast technical development > high number of mature applications
- Benefits and return on investments highly depending on the scale of deployment
- Slow and fragmented uptake across Europe
- Large differences between countries
- Low degree of intermodality

> Patchwork of national, regional and local solutions

Consequently:
- ITS not effectively being used
- Potential remains largely untapped
24 Actions in 6 Priority Areas

- Optimal Use of Road, Traffic and Travel Data
- Continuity of Traffic and Freight Management
- Road Safety and Security
- Integration of Vehicle and Transport Infrastructure
- Data Protection and Liability
- European ITS Coordination
Area 1  Optimal Use of Road, Traffic and Travel Data

1. EU-wide real time travel information (public and private roles)
2. Collection and provision of road data
3. Accurate public data for digital maps
4. Free minimum information service
5. Promotion of multi-modal journey planners
Area 2  Continuity of Traffic and Freight Management

1. Continuity of ITS services (corridors and urban/interurban)

2. Services for freight transport and logistics (eFreight)

3. European ITS framework architecture (especially urban)

4. Implementation of the interoperability of electronic toll systems
Area 3  Road Safety and Security

1. Promotion of in-vehicle safety systems
2. Introduction of Europe-wide eCall
3. Regulatory framework on safe human-machine interfaces including nomadic devices
4. Best-practice guidelines: impact of ITS on vulnerable road users
5. Best-practice guidelines: secure parking places for trucks (ITS support)
Area 4 Integration of Vehicle and Transport Infrastructure

1. Open in-vehicle platform architecture
2. Development and evaluation of cooperative systems
3. Specifications for communication:
   » infrastructure-to-infrastructure
   » vehicle-to-infrastructure
   » vehicle-to-vehicle
4. Mandate for European standardisation
Area 5  Data Protection and Liability

1. Assessment and measures on security and data protection
2. Addressing of liability issues, especially in-vehicle safety systems
Area 6  European ITS Coordination

1. Legal framework for European ITS cooperation > proposed Directive
2. Decision support toolkit for ITS investments
3. Guidelines for public funding for ITS (EU and national)
4. Collaboration platform on urban ITS

- Framework for the implementation of the Action Plan
- Deployment: Obligations for Member States (Art.3)
  - necessary measures for coordinated deployment and use of interoperable ITS services
  - make reliable and updated road transport data available
  - ensure data exchange between traffic centres (across borders)
  - take measures to integrate different safety systems in the vehicle and develop safe human-machine interfaces
  - take measures to integrate ITS applications on a single platform
  - use satellite-based infrastructure (or equivalent technology)
- Specifications for the Deployment: (Art. 4 + Annex II)
- Reporting: (Art. 10)
  - Activity report by Member States after 6 months
  - National Action Plans (5-year) by Member States and annual progress reports
  - European Commission reports every 2 years to European Parliament and Council
European ITS Committee

Member States

Chair: EC

Member States

European Commission

European ITS Advisory Group

20 High Level Members

Chair: EC

Service providers

User associations

Transport operators

Industry

Social partners

Professional organisations

Local authorities

European Commission

- advise on business and technical aspects
- formulate stakeholder interests

establish specifications in priority areas

information exchange
Implementation of the Action Plan

- 2009-2014 (target date for each action)
- inter-service cooperation will continue
- progress report in 2012
- monitoring indicators have been identified

Discussion in European Parliament and Council started in January 2009 and ongoing:
  - EP TRAN Committee to vote on 31 March
  - EP Plenary vote scheduled on 22 April
  - Council Conclusions on ITS AP to be adopted on 30 March

- co-decision procedure for the Directive
Conclusion

- Intelligent Transport Systems (ITS) have a good potential to make transport safer, more efficient and greener
  - 5000 less fatalities on the road
  - 10% less congestion (€ 10 billion in time savings)
  - Substantial reduction of CO$_2$
- … but deployment and use is slow and fragmented

The **ITS Action Plan and Directive** aim to accelerate and coordinate ITS deployment on the roads including interfaces to other modes.
The EasyWay project

- Financially supported by the EC under the Multi Annual TEN-T Programme (2007-2013): €300 Millions in three cycles on a total budget of €1.5 Billion
- EasyWay project focuses on a Europe-wide harmonized deployment of "Core ITS services" on the trans-European road network
- This deployment is in 3 thematic ITS domains, in addition to the ICT infrastructure:
  » Traffic management
  » Travel & traffic information services
  » Freight & logistics services
- Importance of involvement of new MS: today 21 Member States (with 2 observers) are participating in EasyWay. (Countries currently not participating in EasyWay are: Estonia, Latvia, Malta, Luxembourg, Poland, Bulgaria.)
- This is an opportunity to be involved in ITS deployment at European level.
More information

ITS Action Plan and Directive

http://ec.europa.eu/transport/its/road/action_plan_en.htm

Thank you for your attention!