The European platform for ITS deployment
ne of the primary objectives of European transport policy is to achieve an integrated transport system which underpins EU-wide inclusion, economic progress and competitiveness. In order to achieve sustainable mobility, transport has to be efficient, smart, predictable, safe and clean. While the TEN-T network constitutes the backbone of our European transport infrastructure, Intelligent Transport Systems are key to better interconnect individual modes of travel, to improve the use of existing capacities and to support the provision of user-oriented, safe and continuous services. Intelligent Transport Systems (ITS) indeed have become fundamental in tackling today’s challenges with regard to our transport system. The ITS Directive (2010/40/EU), adopted in August 2010, provides the framework for fostering and supporting the coordinated and interoperable deployment and use of ITS within Europe. It focuses on the development and adoption of European specifications to enhance interoperable and continuous roll-out of ITS services. The Directive addresses 4 priority areas: the optimal use of road, traffic and travel data; the continuity of traffic and freight management ITS services; ITS road safety and security applications; and the integration of the vehicle in the transport system. Within this context it should be clear that EasyWay and any future European ITS deployment programme should align their deployment priorities with those defined in the ITS Directive.

The EasyWay project, supported under the EU’s TEN-T programme (Trans-European Network for Transport), focuses on concerted deployment of interoperable services and smart solutions such as real travel-time information, traffic management and freight logistics services. Coordinated ITS deployment is important in order to achieve cost-effective and user-oriented roll-out of seamless ITS core services across Europe. With the complex value chain associated with the successful delivery of ITS systems and services, concerted efforts are needed to secure cooperation between Member States and other stakeholders, including industry, towards interoperable and cost-effective deployment and door-to-door continuity of ITS services. The project has the potential to accelerate deployment of ITS systems and services, based on a shared vision, road map and agreed minimum requirements in anticipation of the European specifications and standards.

The “Guides for deployment” will constitute, when adopted by the project, important deliverables of the project, achieved through cooperation between the Member States and their partners, thereby providing real added value to operators, service providers and end users.

**The EasyWay password: efficient cooperation**

EasyWay is a European project involving more than 150 partners from 27 Member States (22 active and 5 observers) and 3 other European countries, for fostering and harmonising the deployment of Intelligent Transport Systems (ITS) on the major European road networks. The main objectives of EasyWay are to improve safety, to reduce congestion and to reduce environmental impacts through the coordinated deployment of real-time information and traffic management services. EasyWay is a unique platform gathering National road authorities with public and private road operators across Europe. EasyWay partners have invested 500 M€ during the period 2010-2012 to deploy harmonised Intelligent Transport Services on the TEN-T road network. The European Commission provides a financial support of 100 M€.

**A coordination at all levels**

Cooperation between Member States is guaranteed at all levels of the project:

- High level representatives from Member State provide guidance and vision to the project through the Supervisory Programme Board.
- Road authorities and road operators monitor the deployments, share experiences and prepare the decisions to manage the overall project through the Steering Committee.
- The experts from all participating Member States provide recommendations, at European level, coming from operational experiences.

As one concrete example of this efficient cooperation, concrete requirements for harmonised deployment and interoperable ITS services were incorporated into an improved set of EasyWay Deployment Guidelines in 2011. A large consultation and mediation have been successfully carried out in 2012 to validate these guidelines and seek formal approval from the participating Member States.

**Fotis Karamitsos**
Acting Deputy Director General DG MOVE
On behalf of the European Commission
The European policy papers “Europe 2020” and the White Paper “Roadmap to a single European Transport Area” (COM 2011/144/EC final) state that the European transport sector is a backbone for the European Economy, but it is also contributing to the mitigation of adverse impacts on safety, the environment, and efficiency. A common effort is needed to link and optimize the different modes in all aspects, plus to integrate them into a single European Transport Area. Besides extending hard infrastructures, the application of ITS is the only outstanding instrument to make existing infrastructures more efficient, safer and more environmentally friendly and to provide the information which enables integration of different infrastructures and modes. The ITS Action Plan, the ITS Directive and the TEN-T Guidelines are instruments to help execute the White Paper.

Physically most system deployments are largely investments by and located in Member States. European systems and services will be built with those national components as fundaments. The relevant national components have therefore to be implemented according to European Standards, specifications and Deployment Guidelines requirements.

The acceleration of ITS deployment saves lives, money and the environment. It strengthens the European economics through an improved co-modal and continuous mobility which serves the European traveller. A strong cooperation between road operators and other public and private stakeholders working together towards fully harmonised and continuous services is needed to speed up the ITS deployment. Harmonisation increases and makes deployment more cost-effective, leading to significant savings of public and private money.

The current national and cross-border services will evolve to one integrated set of European Mobility Services in 2020 and beyond. European financial support strengthens international cooperation. Support received to date has led to significant achievements clearly demonstrating the large European Added Value of EasyWay project, where 150 road authorities and road operators, both public and private, from EU Member States plus other European countries have been cooperating on the harmonised deployment of Intelligent Transport Systems and Services (ITS) since 2007.
**EasyWay,** harmonized ITS service delivery on the network

### The EasyWay 2 Milestones

In all, 90% of the total EasyWay 2 budget (around €450M) is dedicated to the coordinated and harmonized deployment of core ITS services on the EasyWay network through a Work Programme which comprises over 1,000 discrete deployment projects. In order to assess the progress, the attainment and the impact of these deployment projects across the network, the EasyWay 2 Strategic Action Plan (SAP) identifies over 70 pan-European Milestones relating to the roll out of specific ITS services on the European network. Each individual deployment project contains key performance indicators which are used to measure the real progress of each core service on the road in terms of, for example, the number of network km covered, the number of inhabitants impacted, etc.

### The EasyWay 2 Core Services

The 10 EasyWay Core ITS Services are divided into the 4 EasyWay activity areas as follows:

<table>
<thead>
<tr>
<th>EasyWay Activity</th>
<th>Core ITS Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traffic Information Services</td>
<td>Pre-trip and On-trip Traveller Information</td>
</tr>
<tr>
<td></td>
<td>Co-modal Traveller Information</td>
</tr>
<tr>
<td>Traffic Management</td>
<td>Management of Sensitive Road Segments</td>
</tr>
<tr>
<td></td>
<td>Traffic Management on Corridors</td>
</tr>
<tr>
<td></td>
<td>Incident Management</td>
</tr>
<tr>
<td>Freight and Logistics</td>
<td>Intelligent Truck Parking</td>
</tr>
<tr>
<td></td>
<td>Access to Abnormal and Hazardous Goods Regulations</td>
</tr>
<tr>
<td></td>
<td>Other Freight and Logistics Services</td>
</tr>
<tr>
<td>ICT</td>
<td>Traffic Centres and Monitoring</td>
</tr>
<tr>
<td></td>
<td>Data Exchange</td>
</tr>
</tbody>
</table>

### EasyWay 2 Progress in 2011

At the end of 2011 - the mid-point of the EasyWay 2 deployment phase - a comprehensive review of the programme was undertaken and progress towards the EasyWay 2 Milestones was assessed. This demonstrated that, at the end of 2011, EasyWay 2 was exceeding the expected progress of its plan to deliver harmonised services. Furthermore, it indicated that - by the end of 2012 - EasyWay 2 would have ultimately made a greater contribution to network efficiency and road safety than that had originally anticipated. EasyWay’s commitment to deploy harmonised and seamless ITS services on the network in conjunction with the EasyWay Deployment Guidelines have thus demonstrated a considerable range of achievements by the midway stage of the programme.

### Notable achievements

**Traveller Information Services**
- More than 230,000 km covered and improved with pre-trip and on-trip real-time traveller information services.
- 100 Millions of European citizens targeted through co-modal information services.

**Traffic Management Services**
- 15,000 km of sensitive roads improved with traffic management services (including speed control, ramp metering, lane control).
- 100 new or improved Traffic Management Plans across Europe.
- More than 20,000 km covered with incident management services.

**Freight and Logistics Services**
- 150 new or improved Truck Parks with static or dynamic information.
- 25,000 km covered with services dedicated to Freight drivers.

**Connected ICT infrastructure**
- More than 5,000 monitoring stations deployed.
- 700 traffic centres communicating through DATEX nodes.
The objective of evaluation in EasyWay 2, which has reconfirmed the benefits already delivered, is to demonstrate how the co-ordinated delivery of integrated services within EasyWay provides tangible benefits in terms of impacts on safety, network efficiency and environmental impact. The EasyWay Evaluation Experts Group provides guidance for the deployment activities evaluation works and analyses the reports.

Objectives and Results

EasyWay project’s objectives expected to be achieved by 2020 are 25% improvement in road safety, 25% decrease in congestion and 10% reduction in the negative environmental impact of transports. Target reductions up to 2012 are reductions in accidents and congestion of around 4% and a reduction in environmental impact of around 2%.

Positive impacts

- Safety - injury accident savings of between 10% and 20%, rising to approximately 60% on some safety critical roads sections.
- Congestion - capacity throughputs increased by up to 20% where lanes are dynamically managed.
- Environment - reduced congestion resulted in CO₂ savings of up to 4%.

Positive effects of the applications

- **Dynamic Lane Management**
  - Capacity rates around 10%
  - Accidents reduction up to 60%
  - CO₂ emission reduction around 4%
  - Benefit-cost ratio: in excess of 20%

- **Variable Speed Limits**
  - Traffic flow improvement up to 20%
  - Accidents reduction up to 20%-30%
  - Speed reduction of 10 km leads to PM10 13%

- **Ramp Metering**
  - Reduction in vehicle-hours lost 10%
  - Reduction in travel time lost 50%
  - Accidents reduction up to 60%
  - CO₂ emission reduction around 4%
  - Benefit cost-ratio: between 1.5 and 2.2

- **Cross Border Traffic Management**
  - High impact in mobility
  - Traffic diversion 25-70%

- **Co-ordinated Data Exchange/Real Time Traffic Information Provision**
  - Reduction in injury accidents in adverse conditions 11%
  - Reduction in travel times up to 20%
EasyWay benefits for the European Community

EasyWay is an efficient and unique platform to coordinate and harmonise the ITS deployment through Europe: 27 Member States, 3 other European countries and more than 150 road operators are involved in EasyWay.

Benefits for European Road Users
Approximately 95 million inhabitants benefit of the ITS deployed on the 300,000 km of roads covered by EasyWay:
- Less congestion: reduction of 6% amounting to economical savings of at least 1 billion €/year.
- Safer networks: 5% less accidents amounting to at least 1,000 less fatalities and 10,000 less seriously injured people per year.
- Less environmental damage.
- More road services with the same look-and-feel.

Benefits from European Commission support for EasyWay community
EasyWay receives financial and policy support from the EC:
- 20% co-funding of the deployment activities, 50% co-funding of the horizontal activities.
- Commitment to oblige EasyWay Partners to harmonise and to foster cooperation with external stakeholders.
- Contribution to increase national awareness of European ITS deployment.
- Contribution of EC experts in EW Groups.
- Recommendations from TEN-TEA project management to the EasyWay project management.

Benefits for the European Commission
- Almost all TEN-T road operators cooperate in EasyWay and contribute to the ITS Action Plan.
- The EW Deployment Guidelines - based on real-life best practices from all Member States - provide a valuable input to the ITS Directive specifications.
- Easy access to high-level ITS policy makers in the Member States via the EasyWay Supervisory Program Board.

EasyWay, a shared vision for deploying ITS Services
EasyWay has developed a vision shared by 22 Member States across the European Union for deploying ITS services. This vision relies on 5 interconnected blocks:

- The EasyWay Operating Environment is a classification of the TEN-T Road network. This framework provides a common understanding of the road network all over Europe.
- The EasyWay Core Services structure the implementation programmes of all the partners within EasyWay. These Core Services address Traveller information, Traffic management, Freight and an Interconnected infrastructure.
- EasyWay Deployment Guidelines have been worked out to support a shared approach for Core Services implementation. These Deployment Guidelines provide for continuity and interoperability of ITS Services across the TEN-T road network and they also foster harmonisation from an end-user perspective. The Guidelines are supported by the EasyWay Operating Environments and will be maintained on the basis of feedback and best practice from EasyWay deployments.
- EasyWay ITS services deployments are carried out by the public and private road operators from the 22 active participating EU Member States. ITS services are deployed at local or regional level but based on the Deployment Guidelines they always contribute to the implementation of a coherent European transport network.
- The 2012 EasyWay Roadmap is a prospective document developed by road operators and authorities involved within EasyWay. It provides a balanced European view on ITS expected evolution.
Period 2013-2015: towards EasyWay 3

On-going support is needed to carry forward the development and roll-out of the pan-European ITS services and the current EasyWay prospective plan underlines the need for continuous financial support for 2013-2015.

The next EasyWay phases must take into account what is our current success. New phases must not start from scratch but using what EasyWay has created including current experience. ITS deployment after 2012 will be much more based on and contribute much more to the ITS Action Plan and the ITS Directive. At the same time they must continue to be based on and in line with the national ITS deployment plans. In comparison with EasyWay 1 and EasyWay 2, there is a strong need for more pan-European projects on harmonised ITS services on top of the existing national, regional and cross-border projects and activities. EasyWay needs to concentrate on key services, which have to fulfil the following criteria:

- they serve the core business of the road authorities and operators;
- the road authorities and operators have a central role in their provision;
- they are mature enough for large-scale European deployment;
- travellers and hauliers clearly benefit from their deployment on the European scale.

The number of services should be small enough to ensure sufficient focus and critical mass of the service deployment in optimal service levels throughout Europe as well as the high quality of the European guidance of the service provision.

The service-oriented approach also results in extending the scope of the programme outside the strict TEN-T road network of roads to fulfil the needs of the European travellers and hauliers in their door-to-door journeys. Basically this means that EasyWay needs to devote attention to the interfaces with urban areas and connecting nodes (multimodal nodes such as ports, railway terminals etc.). The key services list could include:

- real-time traffic information;
- co-modal traveller information;
- incident management;
- traffic management on sensitive road segments;
- intelligent truck parking;
- cooperative services (bundle of seven priority services, pilot stage).

Nodes and links: the architecture of the new EasyWay

EasyWay is a key player in European ITS deployment. The program combines resources from all EU Member States and European road operators in a joint effort for the deployment of harmonized ITS services. Their full potential, however, cannot be made a success by the EasyWay partners alone, it requires cooperation with stakeholders external to the project. For this reason EasyWay has engaged in a range of activities in order to facilitate cross-fertilization, including cooperation with organizations external to EasyWay. Cooperation will become even more important for the future. Identifying stakeholders, common priorities and the best way to organize such cooperation will be required. The EC has recently addressed this development in the drafts of the new TEN-T guidelines, which look at the TEN-T as a network of nodes and links. An architectural approach will be beneficial here in order to describe how EasyWay services interact and collaborate with other services. The full potential of ITS in solving transport-related problems and in fulfilling policy objectives is still underestimated. Hence, there is a need to demonstrate that ITS services work and are effective and, at the same time, to provide the road users with “hands on” experience of the ITS services and their potential to increase the quality, safety and efficiency of their daily journeys and life.
EasyWay countries

Andorra  Austria  Belgium  Bulgaria  Cyprus  Czech Rep.
Denmark  Estonia  Finland  France  Germany  Greece
Hungary  Ireland  Italy  Latvia  Lithuania  Luxembourg
Malta  Netherlands  Norway  Poland  Portugal  Romania
Slovakia  Slovenia  Spain  Sweden  Switzerland  United Kingdom