

ITS DEPLOYMENT GUIDELINES

FACT SHEET - UPDATE 2015

Traffic Condition and Travel Time Information

"Traffic condition and travel time information service" means, both pre-trip and on-trip, the provision of traffic condition (Level of Service) and travel time information on identified road segments of the TEN-T network and interfaces, thus enabling road users to optimize and better anticipate their journey ahead. This predictive or real-time information will use different information channels, accessible by the road user via different end-user devices. The service may comprise common as well as individual (personalised, on-demand) information.

The Deployment Guideline (DG) sets clear targets, identifies the set of necessary European ITS services to deploy and is an efficient platform that allows the European mobility stakeholders to achieve a coordinated and combined deployment of these pan-European services.

General Service Definition

The intention of the service is to make road users react and adapt their driving behaviour to the traffic conditions they are going to meet, by informing them about the current and the expected development of traffic conditions and travel times. The vision is that a user provided with high quality information will react and adapt his travelling and driving behaviour to include a change of

routes, modes or trip schedule (time of departure) as well as changes in the way of driving. Thus the road traffic network is used in a more efficient and safer way with significant contributions to improving environmental performance, energy efficiency and security of road transport.

Harmonization focus

A main focus of this EasyWay-deployment guideline is the Internet-based pre-trip and on-trip traffic information on dynamic maps, with road sections coloured according to defined categories of Level of Service and additional information about travel times. This type of display is already used by many information providers but sometimes with slight differences.

A second main focus is placed on providing such information on-trip on Variable Message Signs (VMS), which are operated along the

route by road operators or private operators on behalf of a road authority.

Yet another attention is on the interface between road operators and national, regional or local broadcasters, which provide traffic forecasts to mass audiences. Through the rapid evolution of end-user devices based on mobile phone technology, the provision of individual (personalised, on-demand) information services is also increasing.

Current status of deployment

There are various European services in operation which can be distinguished according to the information providers, i.e. public road authorities, private road operators, broadcaster and other private service providers. Different information channels could be used for the provision of the service to the road user as there are roadside information infrastructure, Internet, broadcasting facilities used by media, data communication, mobile radio or infrastructure to vehicle facilities.

End-user access is possible by different end-user devices. The table shows the different end-user devices with the reference to some attributes.

	Roadside Information Panels (VMS)	Internet based Devices		Navigation Systems	RDS-TMC/ TPEG based devices	Radio (spoken)	Television
		Stationary devices	Mobile Devices				
Pre-trip use	n	y	y	y	n (y)	y	y
On-trip use	y	n	y (n)	y	y	y	n
Language independent	n (y)	n	n	y	y	n	n
Information provision by road operators	Y	Y	y	n	n (y)	n (y)	n
Information provision by other parties	n	y	y	y	y	y	y

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European Dimension

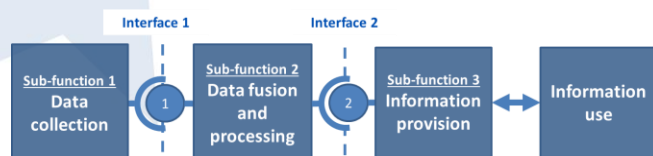
Ideally, traffic condition and travel time information should have a European dimension and provide continuity across neighbouring regions and between member states. Thus the purpose of this Deployment Guideline is to develop the existing services towards a truly European (pan-European) service and to assure an adequate service quality (Level of service).

Provision of information by means of pictograms or colours on a digital map tends to be language independent, but the pictograms and colours are not uniform across Europe at present.

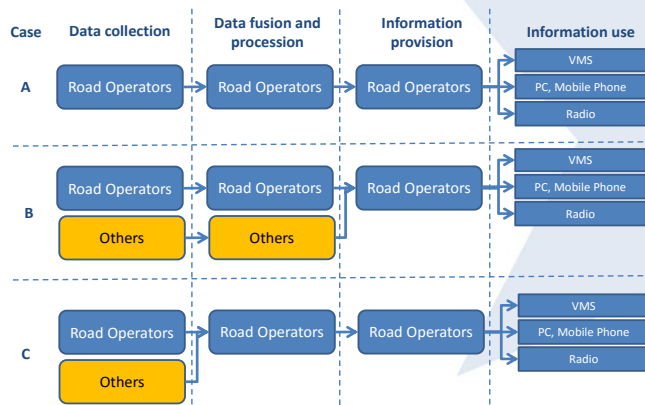
Harmonization Requirements

Functional, operational, technical as well as look and feel requirements are proven to contribute to successful deployment and have been agreed by the European road operators as elements that should be part of all deployments of this particular service within the scope of the European ITS Deployment Corridors.

The following figure shows the typical functional architecture of a "Traffic condition and travel time information service".



These sub-functions and the provision of interfaces must be carried out to enable interoperability in those cases that the service is provided by more than one organisation. Functional decomposition is recommended in any case to be prepared to involve yet further parties as may be the case in the future



Where different autonomous parties are involved, clear definitions of organisational aspects are a crucial precondition for a successful implementation. The organisational and operational structure of the service, as well as the role of each public organisation/body and its exact roles and tasks in the chain must be defined. The picture shows the organisational architecture from the road operator point

Complementary information (spoken or text) requires translation and provision in different languages.

With Delegated Regulation (EU) 2015/962, supplementing Directive 2010/40/EU, new rules have been adopted to improve EU-wide traffic information services. Real-Time Traffic Information services should be better available to more users by increasing EU-wide interoperability and continuity of data like travel-times and services.

of view. Currently, the models for distribution of data are changing dramatically to miscellaneous combinations of cooperation between road operators and others parties. There is a different focus on deploying services for the forecast and real time event information as well from private companies as from national authorities and road operators.

As technical requirement there is the need for a standard. Interoperable interfaces between systems are essential for the delivery of many European ITS objectives like continuity of services and cross-border traffic management cooperation. Hence, the European road operators have themselves decided to actively contribute to the establishment of the required standardisation effort by launching a dedicated working group and liaising with the relevant European standardisation body, namely with CEN TC278 WG8 ("Road Traffic Data"). The result of this cooperation is the "DATEX II" specification for interoperable machine-to-machine communication of ITS services, available as European Standard CEN/TS 16157.

The common Look & Feel advice is that the core message of information provided for the end-user should always be consistent, whatever media or device is used for distribution.

The scope of the European ITS Deployment Corridors is to provide Core European Services to the European road users. These services are harmonized in content and functionality, but also in their availability: The road users shall be able to expect a certain services offer in a specific road operating environment. In order to provide a basis for the harmonization process the EasyWay project had defined such environments in an agreed manner. This tool is the Operating Environments (OE) – a set of pre-defined road environments combining physical layout of the road and network topology with traffic characteristics.

In essence, EasyWay had agreed on a set of 18 pre-defined OE where each OE is a combination of three criteria:

- Physical characteristics – Motorways, other 3/4 lane roads or 2-lane roads
- Network typology – Corridor, Network, Link or Critical spot
- Traffic characteristics – Traffic flow and road safety situations (with optional additions)

Further Information

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Questions and help

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