Deployment Guideline Introduction

European road authorities and road operators have teamed up to unlock the benefits of cooperation and harmonisation in the deployment of Intelligent Transport Systems (ITS) on Europe's major road network. Fragmented deployment on a national level will fail to deliver seamless European services and will not contribute to a coherent European Transport network at the end. The Member States – co-financed by the European Commission – have consequently developed a set of Deployment Guidelines (DG) created jointly by ITS experts and practitioners. The guidelines have undergone a thorough review by international domain experts in an intense peer review and they have been validated by the Member States in an extensive formal Member State consultation and mediation process, which finally led to their adoption as basis for all future European harmonised ITS deployment activities.

The harmonisation concept

Based on a Pan-European accepted understanding of the nature and the benefit of each ITS-service, European Added Value is generated through three main elements:

1. **Interoperability** in terms of functional, organisational and technical features to harmonise cooperation and collaboration between different road operators and other third parties involved in the deployment and operation of an ITS-service;
2. **Common Look & Feel** to present ITS-services to the road user in a harmonized European way;
3. **European-wide accepted assessment criteria** to offer assessment against the background of harmonized level of service and operational environment criteria.

The structure

All EasyWay Deployment Guideline consists of four parts:

The **Introduction** gives an overall explanation of the ITS service to find all general information about the particular ITS-service.

Part A contains requirements from the operator perspective (especially where operation involves several authorities) that stipulate what is needed to harmonise core EasyWay ITS services:

• to ensure interoperability/continuity on the organisational and technical level with a similar neighbouring ITS-service provided by another organisation;
• to present itself to the road user with a common harmonized European look and feel;
• to offer assessment based on harmonised level of service and operational environment criteria.

Part B includes optional features and additional information. In essence, these are given via examples of deployments, cost/benefit analysis, evaluation reports or similar means.

Annex A lists mandatory features required for ITS service harmonisation in the form of a table.
The TIS guidelines furthermore share a reference document that collects content that is common to all TIS guidelines.

The comply or explain principle

The content of Part A is prescriptive by nature and users are expected to ensure that their ITS-service deployments are compliant to the specifications (numbered requirements) in this section. Wherever concrete circumstances in a project do not allow these recommendations to be fully followed, users are expected to provide a substantial explanation for the necessity for this deviation. This concept is known as the "comply or explain" principle. There are two levels to address:

• the technical process;
• the political/administrative/financial process.

The key words ("MUST", "MUST NOT", "SHOULD", "SHOULD NOT", "May") in this document are to be interpreted as described in RFC 2119 (http://www.ietf.org/rfc/rfc2119.txt).

Requirement wording	Meaning in RFC 2119	Meaning in EasyWay	Possible checklist answers
MUST (REQUIRED, SHALL)	the definition is an absolute requirement	there may exist insurmountable reasons to not fulfill (e.g. legal regulations…)	**fulfilled: yes** or **Fulfilled: no - explanation of insurmountable reasons**
MUST NOT (SHALL NOT)	the definition is an absolute prohibition		
SHOULD (RECOMMENDED)	there may exist valid reasons in particular circumstances to ignore a particular item, but the full implications must be understood and carefully weighed before choosing a different course.	The Definition is very close to a "MUST", "MUST NOT" Meaning in EasyWay conform to RFC 2119	**fulfilled: yes** or **Fulfilled: no - with explanation**
SHOULD NOT (NOT RECOMMENDED)	there may exist valid reasons in particular circumstances when the particular behavior is acceptable or even useful, but the full implications should be understood and the case carefully weighed before implementing any behavior described with this label		
MAY (OPTIONAL)	The item is truly optional. One deployment may choose to include the item because of particular local circumstances or because it is felt to deliver a special added value	Meaning in EasyWay conform to RFC 2119	**fulfilled: yes - with explanation** or **Fulfilled: no**

ITS DEPLOYMENT GUIDELINES
FACT SHEET - UPDATE 2015

The importance of the DGs for the ITS Action plan and the ITS Directive

ITS can significantly contribute to a cleaner, safer and more efficient transport system. The European Commission ITS Action Plan suggests a number of targeted measures. The goal is to create the momentum necessary to speed up market penetration of rather mature ITS applications and services in Europe. The DGs provide input to the EC for the realisation of the ITS Action Plan. In order to speed up coordinated ITS deployment, the Action Plan has been complemented with a Directive and Delegated Regulations defined by the Commission with the ITS Advisory Group to provide a legal framework. The DGs support the Member States in fulfilling these legal obligations.

EasyWay ITS Core Services

Traveller Information Services with European dimension should provide continuity across regions and between Member States. The Guidelines facilitate the development of the existing provision of services to deliver a truly pan-European dimension, not just by combining the different services, but also by providing travellers with a consistent, predictable quality level of ITS services across the TEN-T road (trans-European road network). TIS provide the European traveller with comprehensive real time traffic information allowing for well-informed travel decisions (pre-trip information) and during the journey (on-trip). They include real time information concerning the TERN as well as interfaces with peri-urban networks and other transport modes, especially in urban areas.

Traffic Management is defined as an overall plan of strategies and tactical actions for accommodating traffic flow in an efficient, effective and safe manner during recurrent or non-recurrent events on the transportation network. In this context, **Traffic Management Services** provide real time guidance and control for the European traveller and haulier, avoiding overload as well as detecting incidents and emergencies, and thus ensuring safe and efficient use of the available road network.

Freight and Logistics Services focus on actions where cooperation between the road operators, the road transport industry and related stakeholders has the potential to improve the efficiency of road transport, reduce the negative impact of road transport, support co-modality and contribute to intermodal services, mitigate risks due to driver behaviour and transport tasks and to manage conflicts between freight transport and other types of vehicles.
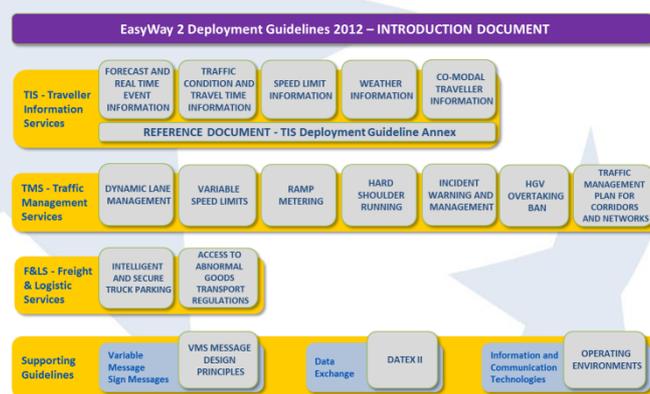
VMS design principles build up a general structure for the composition of international messages. The main informative elements (pictograms, abbreviations, alphanumeric, text) are globally considered and priorities for selecting, structuring, combining and using them are explained and fixed in written form.

The **DATEX II** DG has been designed to describe the general framework for the application of the CEN/TS 16157 series of standards in the framework of harmonised European ITS Deployment programme and the ITS directive. Other DGs refer to this DG and include the concrete data profiles to be used for each specific service.

ITS Core Services are harmonized in content and functionality, but also in their availability: The road users shall be able to expect availability of a certain service in a specific road environment. In order to provide a basis for the harmonization process, the EasyWay project defined as a tool the **Operating Environments** (OE) – a set of pre-defined road environments combining physical layout of the road and network typology with traffic characteristics. Each OE is a combination of physical characteristics (e.g. Motorways or 2-lane roads), network typology (e.g. Corridor, Critical spot) and traffic characteristics (e.g. Traffic flow, road safety).