THE FUTURE OF DATEX II

DATEX II AND THE
ITS DEPLOYMENT GUIDELINES
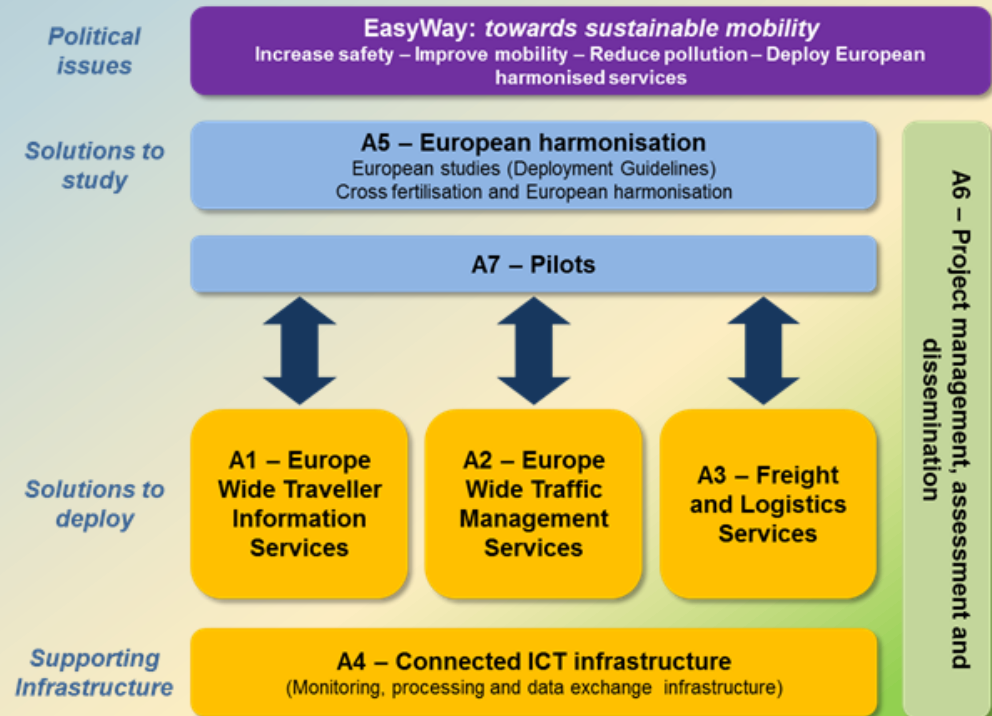
HANFRIED ALBRECHT, EIP ACTIVITY 2

European Commission
Mobility & Transport

The roots: the EasyWay project

- <u>was</u> a cooperation project of road authorities and road operators from 27 European countries
- <u>intended</u> to unlock the benefits of cooperation and harmonisation in the deployment of Intelligent Transport Systems (ITS) on Europe's major road network
- <u>was no</u> standardisation body
- <u>did not</u> have any power to legally constrain the Member States in their national deployment activities

Political issues

EasyWay: *towards sustainable mobility*
Increase safety – Improve mobility – Reduce pollution – Deploy European harmonised services

Solutions to study

A5 – European harmonisation
European studies (Deployment Guidelines)
Cross fertilisation and European harmonisation

A7 – Pilots

Solutions to deploy

A1 – Europe Wide Traveller Information Services

A2 – Europe Wide Traffic Management Services

A3 – Freight and Logistics Services

Supporting Infrastructure

A4 – Connected ICT infrastructure
(Monitoring, processing and data exchange infrastructure)

A6 – Project management, assessment and dissemination

Overview of EasyWay Activities

ITS Deployment Guidelines …

- <u>were</u> developed as one of the major achievements of the EasyWay project (to versions: 2010 and 2012)

- <u>are neither</u> technical standards <u>nor</u> specifications (as currently developed by the European Commission as their part of the implementation of the ITS Directive 2010/40/EU)

- <u>intend to be</u> user supporting guidelines to foster harmonisation and interoperability of ITS-services in Europe, written in a way that clearly defines criteria that deployments have to fulfil in order to claim overall compliance with the guideline
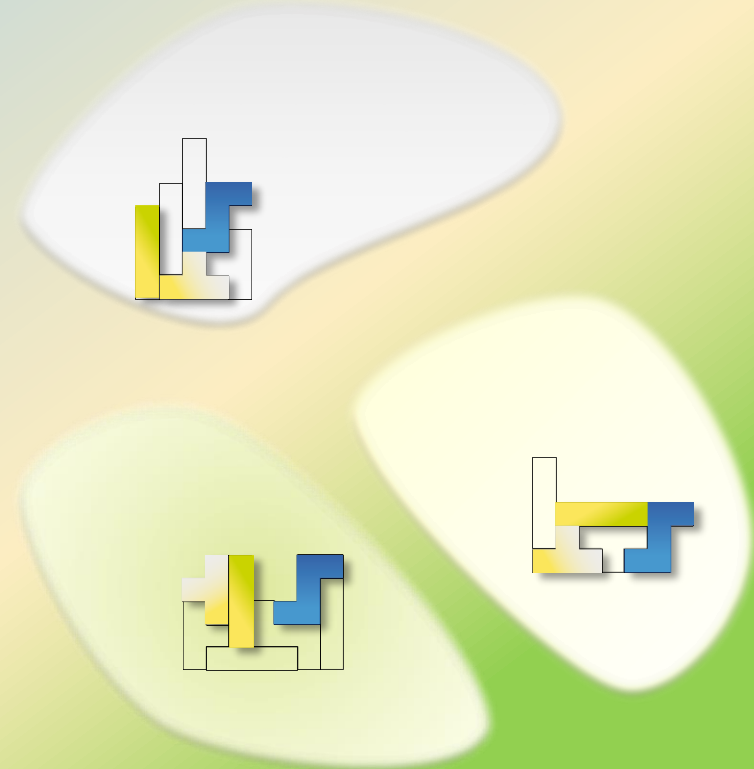
Harmonisation leads to a European added value

DG2012

local ITS-Service instances

Use

ITS Deployment Guidelines
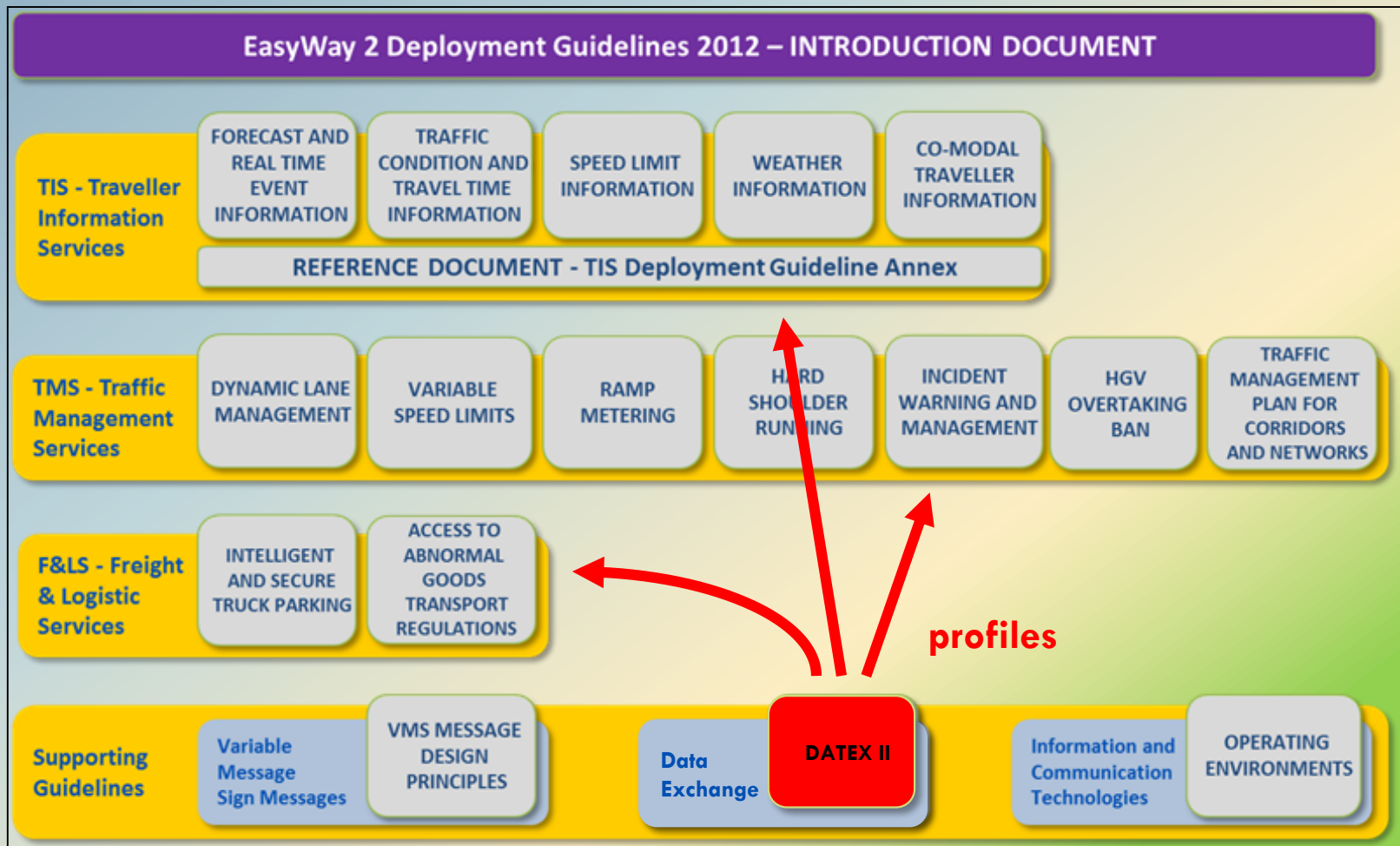## The development process

19th Nov SPB ⭐

Adoption

1st Nov

Finalisation

7th Oct

Final enquiry based on 2nd draft

15th Sep

Mediation / amendment in cooperation with MS

1st May

Formal MS consultation & stakeholder participation

31st Dec

Finalisation of 1st Draft

1st Nov

External peer review

1st Oct

Initial creation based on 2010 Version

Sep / Oct / Nov / Dec / Jan / Feb / Mar / Apr / May / Jun / Jul / Aug / Sep / Oct / Nov / Dec

2011   **2012**

ITS Deployment Guidelines
Document set structure

EasyWay 2 Deployment Guidelines 2012 – INTRODUCTION DOCUMENT

TIS - Traveller Information Services
- FORECAST AND REAL TIME EVENT INFORMATION
- TRAFFIC CONDITION AND TRAVEL TIME INFORMATION
- SPEED LIMIT INFORMATION
- WEATHER INFORMATION
- CO-MODAL TRAVELLER INFORMATION

REFERENCE DOCUMENT - TIS Deployment Guideline Annex

TMS - Traffic Management Services
- DYNAMIC LANE MANAGEMENT
- VARIABLE SPEED LIMITS
- RAMP METERING
- HARD SHOULDER RUNNING
- INCIDENT WARNING AND MANAGEMENT
- HGV OVERTAKING BAN
- TRAFFIC MANAGEMENT PLAN FOR CORRIDORS AND NETWORKS

F&LS - Freight & Logistic Services
- INTELLIGENT AND SECURE TRUCK PARKING
- ACCESS TO ABNORMAL GOODS TRANSPORT REGULATIONS

profiles

Supporting Guidelines
- Variable Message Sign Messages
- VMS MESSAGE DESIGN PRINCIPLES
- Data Exchange
- DATEX II
- Information and Communication Technologies
- OPERATING ENVIRONMENTS

ITS Deployment Guidelines
What are the pillars?

European Added Value

Interoperability
- **functional**
- **organisational**
- **technical**

**Common
Look & Feel**

**EU
Assessment
Criteria**

**Pan-European understanding
of the nature and the benefit of each ITS-service**
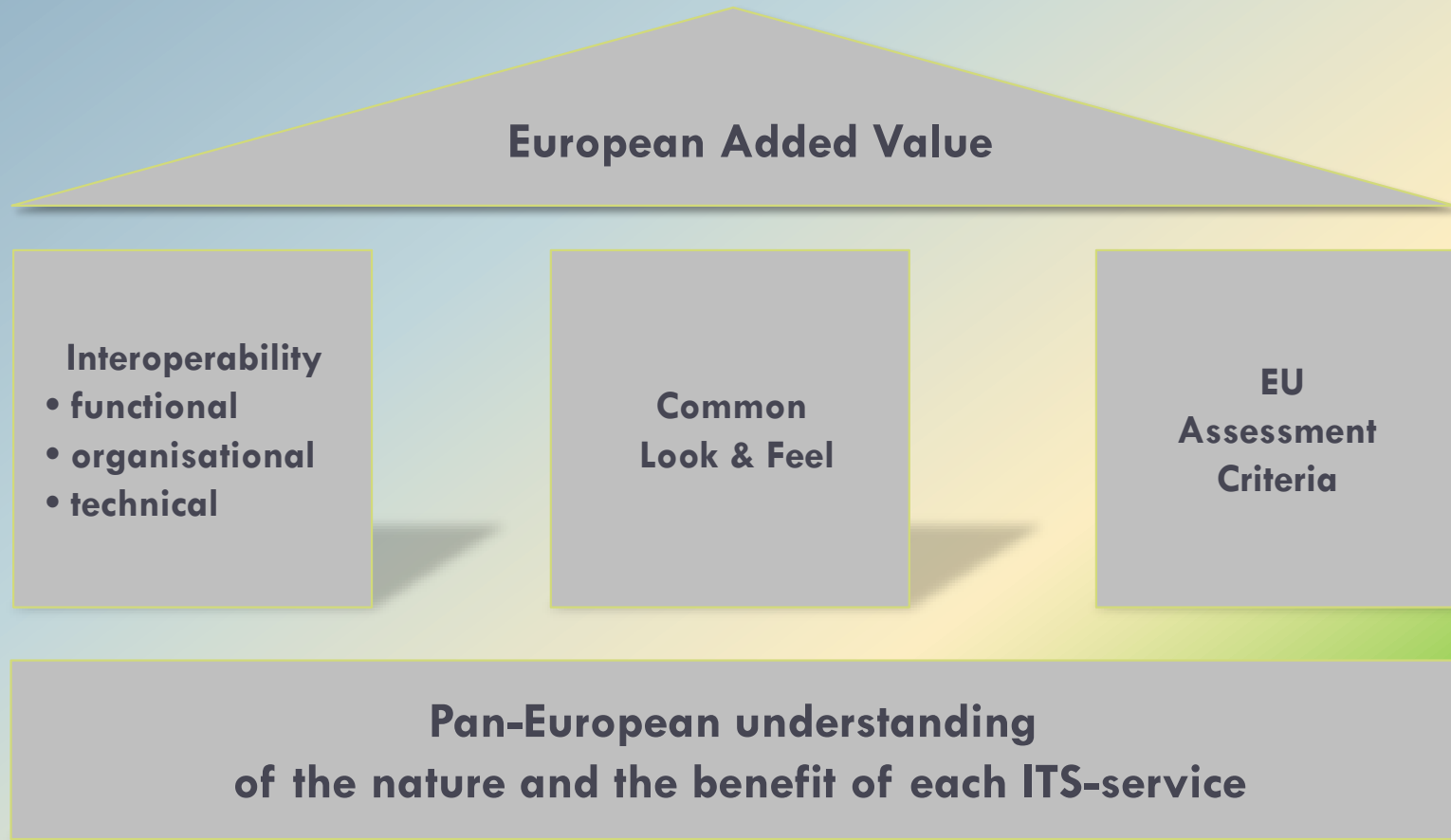
ITS Deployment Guidelines
Requirement categories

- Functional requirements
  - Architectural aspects: decomposition into functions and interfaces
    (with Reference to DATEX II-Profiles)
- Organisational requirements
  - Organisational aspects for the cooperation of partners of service deployment and operation
    (have to agree on basic interoperability features, incl. DATEX II-Profiles)
- Technical requirements
  - ICT-Infrastructure requirements
  - Standards and Agreements: existing and required
    - **DATEX II (plus Profiles and potentially exchange specifications)**
    - Need for Additional Specifications (potentially including DATEX II extensions)
- Common Look & feel
- Level of Service Definitions

ITS Deployment Guidelines
DATEX II elements for **traveler information** services

- static information:
  - measurement site information
  - predefined locations (e.g. segments)
- dynamic information:
  - measured traffic data:
    - traffic flow
    - traffic speed
    - occupancy rate
  - elaborated data
    - level of service
    - travel times
  - operator actions
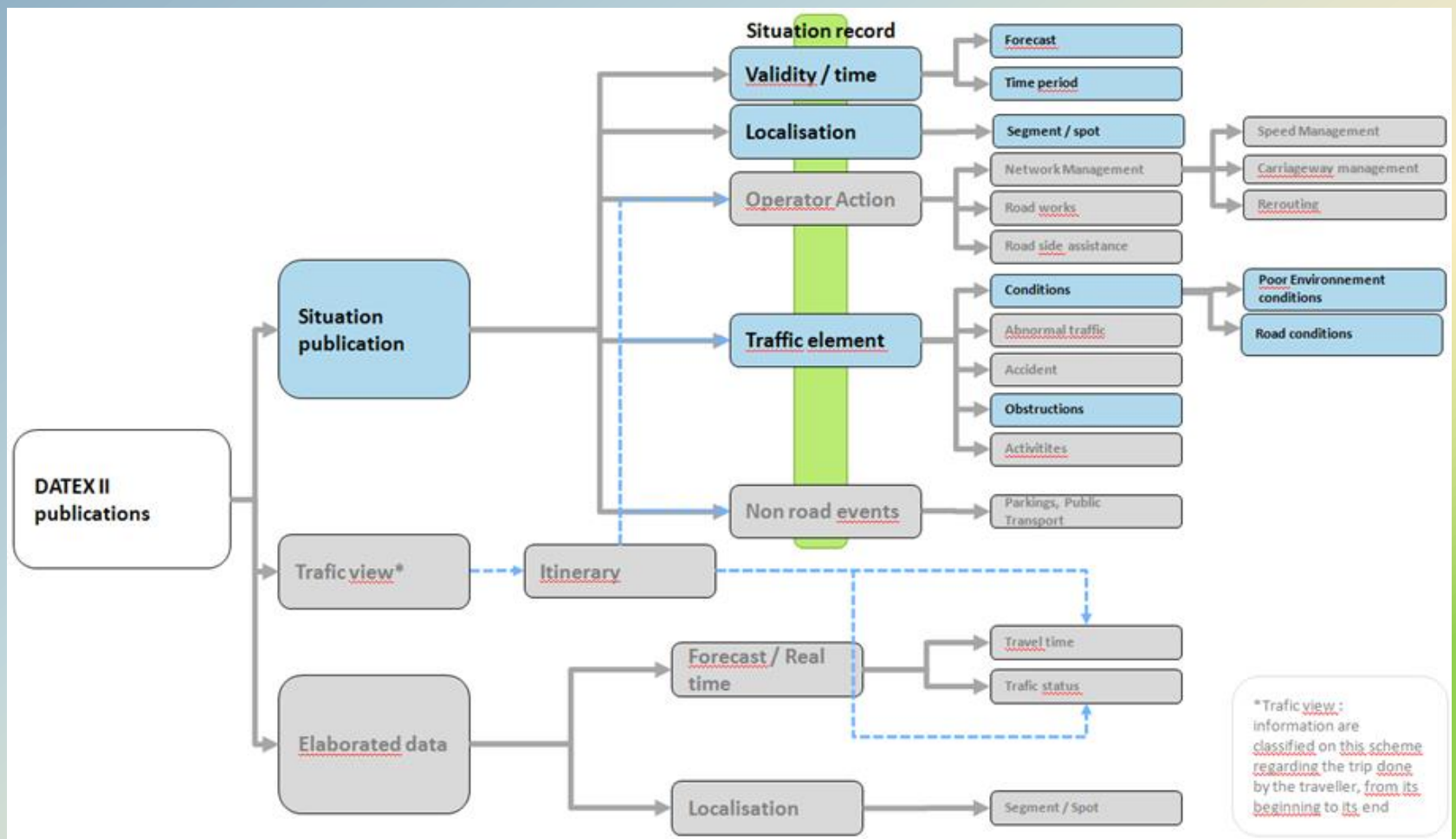   - road works & closures
    - recommended routes
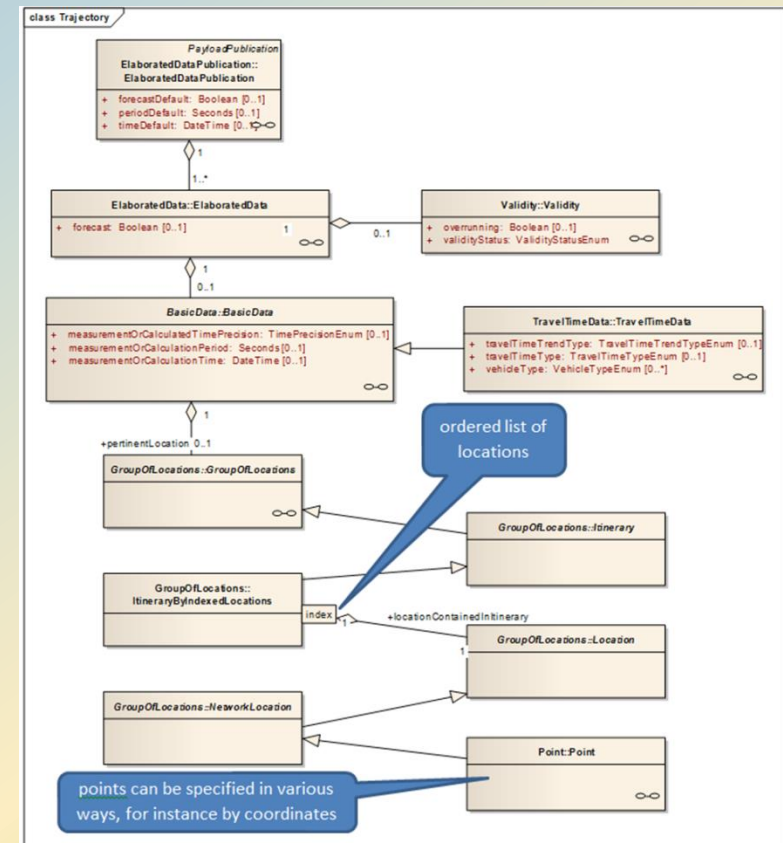
Example: Diagram of the trajectories profile

# DATEX II elements for **weather information** services

ITS Deployment Guidelines
DATEX II elements for **traffic management** services
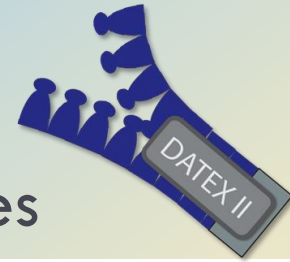
- location and length
- network management type
  - dynamic lane management
  - ramp metering
    - ramp metering in operation
  - dynamic speed limits
    - vehicle type
    - speed limit
  - incident management
    - type of incident
    - actions to react
  - HGV overtaking ban
  - traffic management plans
    - no agreed profile yet
    - important interface to navigation services!
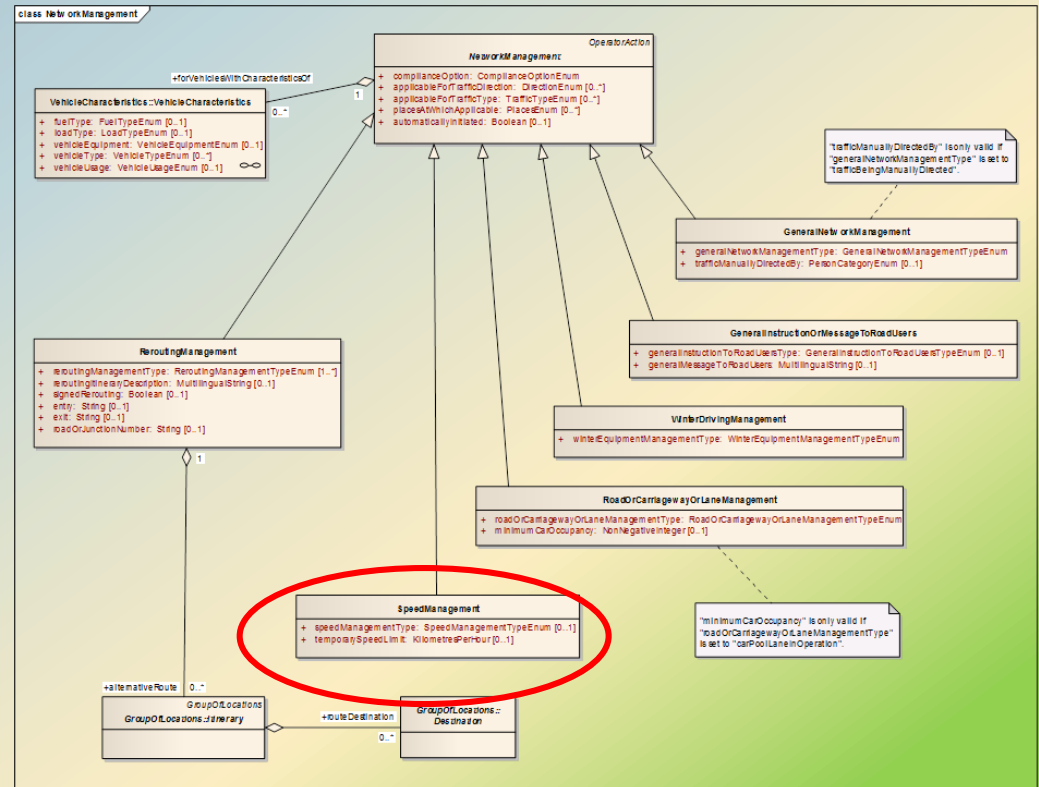
Example: Variable speed limits

ITS Deployment Guidelines
Conclusion

- ITS Deployment Guidelines are the basis of future deployments of ITS-services in Europe
- The usage of DATEX II is a "**must**" requirement
- Common DATEX II profiles **must** be developed and agreed and will come into operation within the next years
- **Questions:**
  - What is the link of harmonised DATEX II profiles in the guidelines to standardisation?
  - How should harmonised profiles be expressed in the guidelines and how detailed do they need to be?
  - How can the cooperation of DG Coordinators and DATEX experts best be organised to support the creation of harmonised DATEX II profiles?

THANK YOU FOR YOUR ATTENTION