Program Supporting Action Datex II

GNSS Enhanced Location

User Consultation Platform
Road/Automotive Session
Sub topic:
Cooperative, connected and automated mobility (CCAM)
About DATEX II

- E-language for road-traffic and travel related information
- For all road-networks (motorway, trunkroads and urban/local roads)
- Like a natural language: grammar and dictionary
- Maintained by stakeholder community
- Standardized stepwise in CEN and ISO
- Local additions are facilitated
DATEX II Components

Common: Reusable Data

Location referencing

Subdomains

1. DATEX II Methodology – Object Oriented UML
2. High Precision Referencing GNSS
3. Road Situation
4. Variable Message Signs
5. Road Data
6. Parking
7. TMPlan
8. Traffic Signals
9. Energy
10. METR
11. Facilities
12. UVAR
13. TPEG LOC
14. RDS TMC
15. 19148 Linear
16. Open LR
17. GML

Communication Protocol Specification / Exchange

European Space Week 2020 - User Consultation Platform - Road/Automotive Session Sub topic: Cooperative, connected and automated mobility

December, 1st

3
Examples of use

**DATEX II – Road operator, VMS**

- Internal TMC-client based on DATEXII - Variable Message Sign (VMS) part 4.
- Map is showing VMS-signs in urban area of Oslo.

25th November 2020
Policy & regulatory context linked to DATEX II

**DATEX II direct links:**
- European Electronic Toll Service (EETS)
- Smart tachograph
- Cabotage rules
- Cooperative ITS
- Dangerous Goods – eFTI

**DATEX II indirect links:**
- eCall
- 112 caller location
Changes done for GNSS extension

Based on:
CEN workshop agreement 16390 and revision
Galileo Navigation Authentication Specification for Signal-In-Space Testing V1.1
Added classes and attributes

• Method and process used for the calculation
• Capability to provide HPL and VPL like for aviation/customized for road which give the level of confidence and alert
• If needed for control, raw data
Content | Platform-independent models

Release 3.0 (2018)
Common elements
Location referencing
Traffic situation

Release 3.1 (2020) adds
VMS
Road traffic data
Extensions:
• Urban
• Traffic management plans
• Enhanced rerouting
• Traffic signal applications

Release 3.2 (2021) to add
Parking
Vehicle energy infrastructure
Device status and faults
Traffic regulations
Enhanced satellite positioning
Path followed to achieve this extension

• National and European R&D effort/initiatives, in order to develop enablers:
  • Technology development and proves of concept,
  • Validation in real use cases and cross border operations
    • urban mobility,
    • road tolling
    • transport of dangerous goods

• Support of EC, GSA and national authorities since 2008
Thank you for your attention

Jean-philippe.mechin@cerema.fr
Antonella.difazio@fdc.eu

Thanks Bard de Vries, Ian Cornwell, Paal Aaserud and all Datex II PSA partners who provide inputs for this presentation
Back-up
Link with ITS Directive and NAP deployment

**DATEX II in the NAP ecosystem**

Data accessible via NAP’s

**COMMISSION DELEGATED REGULATION (EU) 2013/362**

of 18 December 2014

supplementing Directive 2010/40/EU of the European Parliament and of the Council with regard to the provision of EU-wide real-time traffic information services

**REGULATIONS**

COMMISSION DELEGATED REGULATION (EU) 2017/1926

of 31 May 2017

supplementing Directive 2010/40/EU of the European Parliament and of the Council with regard to the provision of EU-wide multimodal travel information services
Link with ITS Directive and NAP deployment

**DATEX II in the NAP ecosystem**

Data accessible via NAP’s

---

**DATEX II**

COMMISSION DELEGATED REGULATION (EU) 2013/796
of 18 December 2014
supplementing Directive 2010/40/EU of the European Parliament and of the Council with regard to the provision of EU-wide real-time traffic information services.

REGULATIONS

COMMISSION DELEGATED REGULATION (EU) 2017/1926
of 18 May 2017
supplementing Directive 2010/40/EU of the European Parliament and of the Council with regard to the provision of EU-wide multimodal travel information services.
Link with ITS Directive and NAP deployment
Path followed to achieve this extension (2)

• Some projects contributing to the path since 2008
  • Dynamic cartography (National)
  • COVEL (European)
  • MENTORE (European)
  • EGNOS on the road (National)
  • EGNOS to Road (European)
  • SCUTUM (European)
  • GeoTransMD (National)
  • CONTAIN (European)
  • CORE (European)