Austrian experience in the implementation of the ITS Directive

NAPCORE

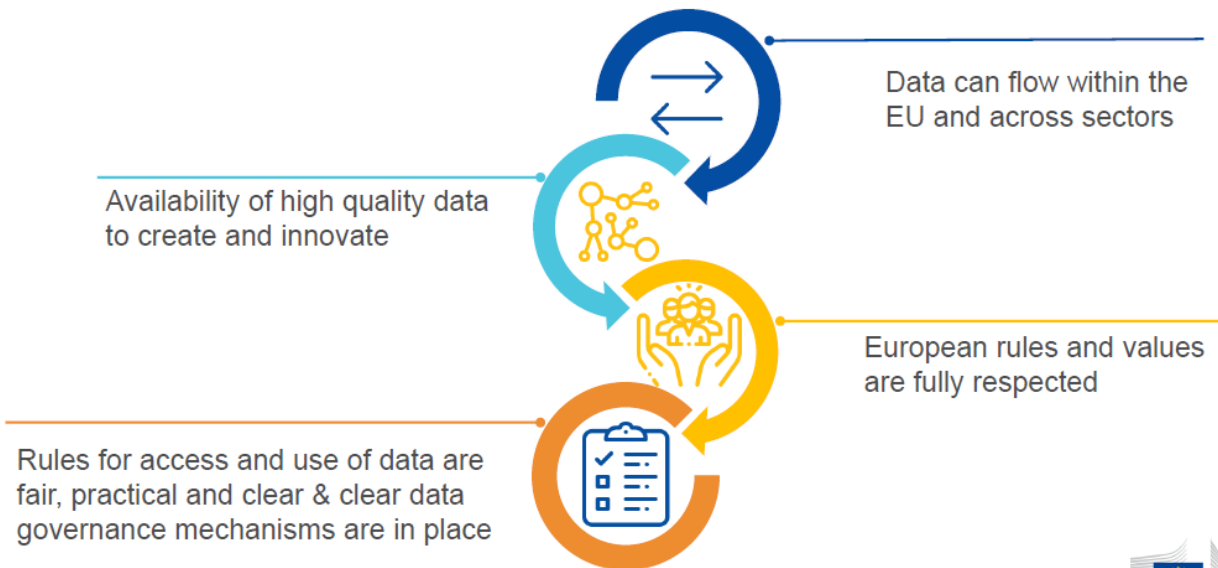**Martin Böhm; AustriaTech**

Agenda

- European Framework for data access in the mobility sector

- The Austrian access point to mobility data

- Data standards in accordance to the European ITS Directive (2010/40/EU)

- NAPCORE - European harmonization

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European Framework for data access in the mobility sector

A European strategy for data (COM(2020)66)

A common European data space, a single market for data

Data can flow within the EU and across sectors

Availability of high quality data to create and innovate

European rules and values are fully respected

Rules for access and use of data are fair, practical and clear & clear data governance mechanisms are in place

Needs to be seen in conjunction with the PSI Directive

A European strategy for data (COM(2020)66)

Deploying the strategy through 4 pillars

A governance framework for data access & use

including a legislative framework for the governance of European data spaces and other cross-sectoral measures for data access and use for specific situations

Enablers

investments of € 2 billion on European data spaces, including data sharing architectures and governance mechanisms as well as federating cloud infrastructures and services

Competences

User empowerment, investments in general data literacy, addressing lack of skilled labour, up/reskilling of our work forces as well as dedicated capacity building for SMEs.

Rollout of common European data spaces

in crucial economic sectors and domains of public interest, looking at data governance and practical arrangements.

A European strategy for data (COM(2020)66) – mobility focus

- **Cross-sector governance** frame for data access and data usage

- Setup of European data spaces – including a **Common European mobility data space** – focusing on the development of an intelligent transport system, including connected cars as well as other modes of transport. Such data space will facilitate access, pooling and sharing of data from existing and future transport and mobility databases.

- **Use of privately-held data** by government authorities (business-to-government – B2G – data sharing) and setup of 'federated platforms' to facilitate data-sharing/re-use by connecting different public and private platforms.

- **Networks of national access points** to make data available exist in the Member States.

- Wide **availability and use of data in public transport systems** has the potential to make them more efficient, green and customer friendly. Data use to improve transport systems is also a central feature of smart cities.

Sustainable and Smart Mobility Strategy (COM(2020)789)

VISION

- **Digitalisation** will become an indispensable **driver for the modernisation of the entire mobility system**, making it seamless and more efficient. Europe also needs to use digitalisation and automation to further increase the levels of safety, security, reliability, and comfort.

- Overall, we must shift the existing paradigm of incremental change to **fundamental transformation**. Thus, this strategy sets out a roadmap for putting European transport firmly on the right track for a sustainable and smart future. To make our vision a reality, it identifies **10 flagship areas** with an action plan that will guide our work in the years to come.

Sustainable and Smart Mobility Strategy (COM(2020)789)

FLAGSHIP 6 – MAKING CONNECTED AND AUTOMATED MULTIMODAL MOBILITY A REALITY

- The EU needs to take full advantage of **smart digital solutions and intelligent transport systems** (ITS).

- Europe must seize the opportunities presented by **connected, cooperative, and automated mobility** (CCAM).

- The Commission will explore options to further support safe, smart and sustainable road transport operations under an existing agency or another body. This body could **support the deployment and management of ITS and sustainable connected and automated mobility** across Europe. It could facilitate the preparation of relevant technical rules.

Sustainable and Smart Mobility Strategy (COM(2020)789)

FLAGSHIP 7 – INNOVATION, DATA AND ARTIFICIAL INTELLIGENCE FOR SMARTER MOBILITY

- The Commission will drive the **research and deployment of innovative and sustainable technologies** in transport.

- the EU needs to ensure that the **key digital enablers** are in place

- The digital transformation of the transport and mobility sector requires further efforts related to **data availability, access and exchange**. […] The availability of data and statistics is also essential, in particular real time data, as it enables better services to citizens or transparency of supply chains in freight transport.

- That is why the Commission will propose further actions to build a **European Common Mobility Data Space**.

ITS Directive (2010/40/EU) and its Delegated Regulations

Priority actions	Title	Status
a	The provision of EU-wide multimodal travel information services	Delegated Regulation No 2017/1926
b	the provision of EU-wide real-time traffic information services	Delegated Regulation No 2015/962 Delegated Regulation No 2022/670
c	data and procedures for the provision, where possible, of road safety related minimum universal traffic information free of charge to users	Delegated Regulation No 886/2013
d	the harmonised provision for an interoperable EU-wide eCall	Delegated Regulation No 305/2013
e	the provision of information services for safe and secure parking places for trucks and commercial vehicles	Delegated Regulation No 885/2013
f	the provision of reservation services for safe and secure parking places for trucks and commercial vehicles	frozen

# ITS Directive (2010/40/EU) and its Delegated Regulations

- Goal: „Access to data" in machine-readable formats

- Data-owners provide access to data

- Description of data that need to be accessible (Annexes are describing static and dynamic data sets)

- Provision of technical specifications with regard to accessibility, exchange and re-use

- Requirement to provide national minimum profiles for NeTEx, SIRI and DATEX II

- Timeframe to make data accessible

- Accessibility via national access points at least as meta-data

- Definition of a national body to assess whether the requirements set out in the delegated regulations are complied with by the transport authorities, transport operators, transport on demand service providers and travel information service providers

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The Austrian access point to mobility data

The Austrian National Access Point

- www.mobilitydata.gv.at and www.mobiltaetsdaten.gv.at

- operative since November 2016

- covers Del. Reg. 885/2013; 886/2013, 2015/962 and 2017/1926

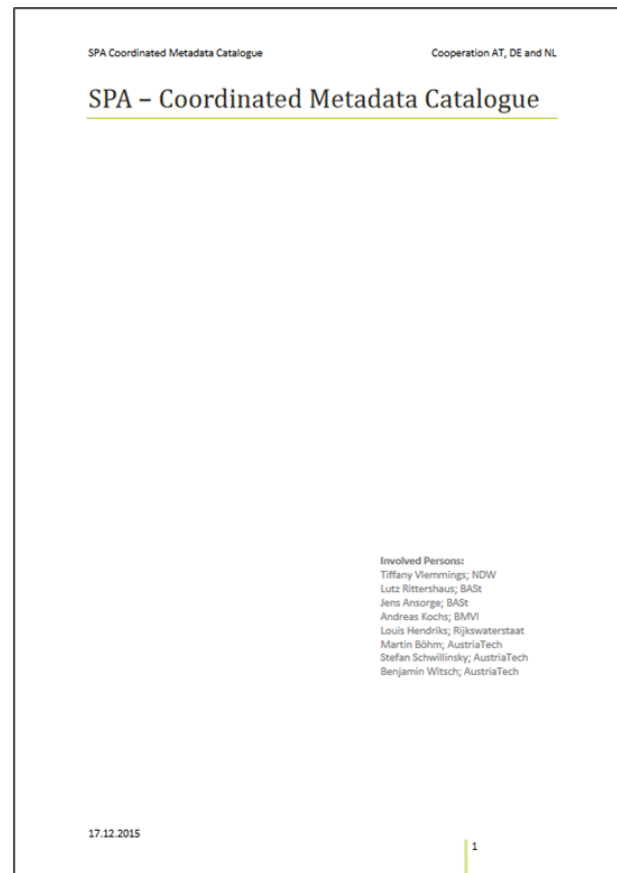- currently 44 datasets from 12 data holders are listed
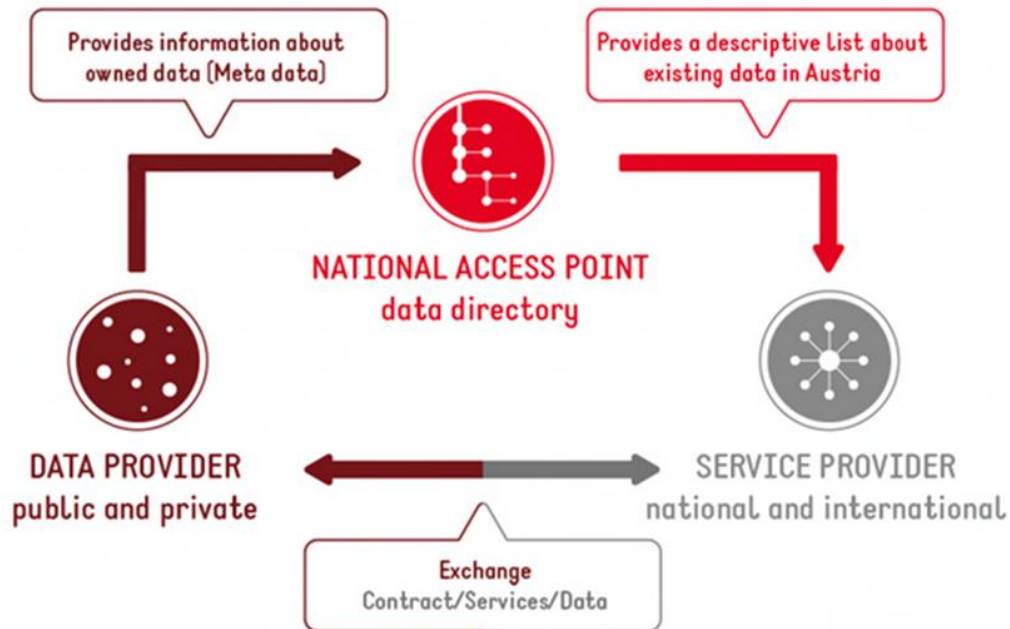
The Austrian National Access Point

- it follows the European ITS Framework Architecture FRAME V5.1

- based on Enterprise Architect

- https://frame-online.eu/
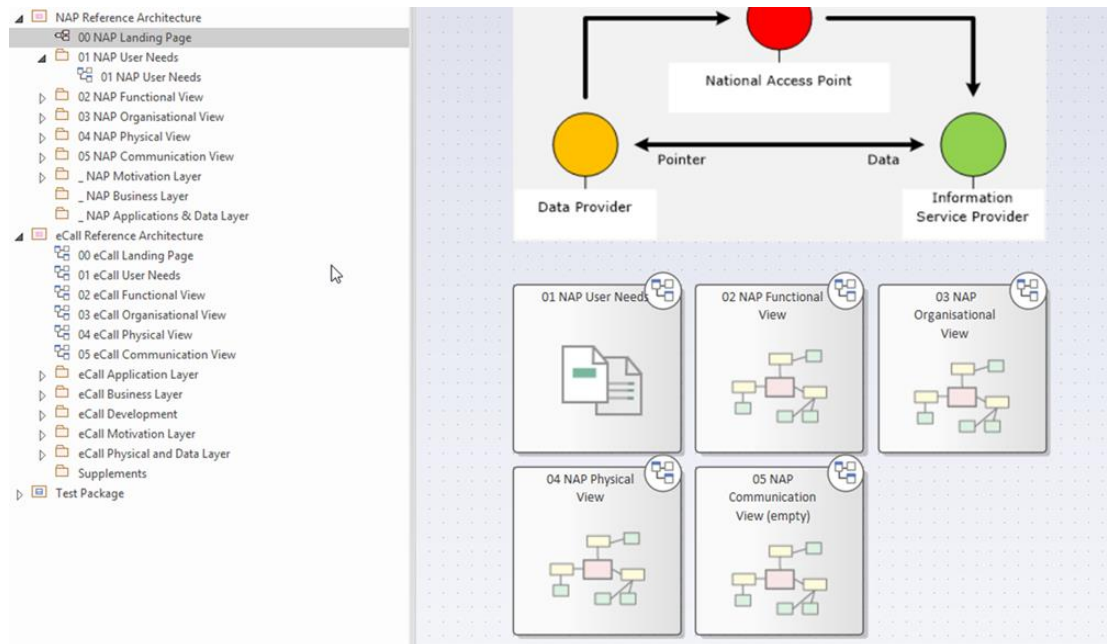
The Austrian National Access Point

- Data is accessible as Metadata (the metadata catalogue is available at: https://mobilitydata.gv.at/sites/default/files/pictures/SAP_Coordinated_Metadata_Catalogue_V2.0.pdf

- The data itself stays with the data owner

- Data access is required in DATEX II, NeTex or SIRI or any compatible format

- Access to services via openAPI (OJP) is in preparation

SPA Coordinated Metadata Catalogue   Cooperation AT, DE and NL

SPA – Coordinated Metadata Catalogue

Involved Persons:
Tiffany Vlemmings; NDW
Lutz Rittershaus; BASt
Jens Ansorge; BASt
Andreas Kochs; BMVI
Louis Hendriks; Rijkswaterstaat
Martin Böhm; AustriaTech
Stefan Schwillinsky; AustriaTech
Benjamin Witsch; AustriaTech

17.12.2015   1

The Austrian National Access Point

- the trigger was set with the Delegated Regulations

- The driver is a one-stop-job for mobility relevant data (even more than covered by the Delegated Regulations)

- Goal is to get data as well from private stakeholders accessible

- Future goal: quality-seal for mobility data

- www.mobilitaetsdaten.gv.at / www.mobilitydata.gv.at

- Data directory with search and filter function

- No data market place or data exchange

- No contractual obligations with data holders or data retrievers
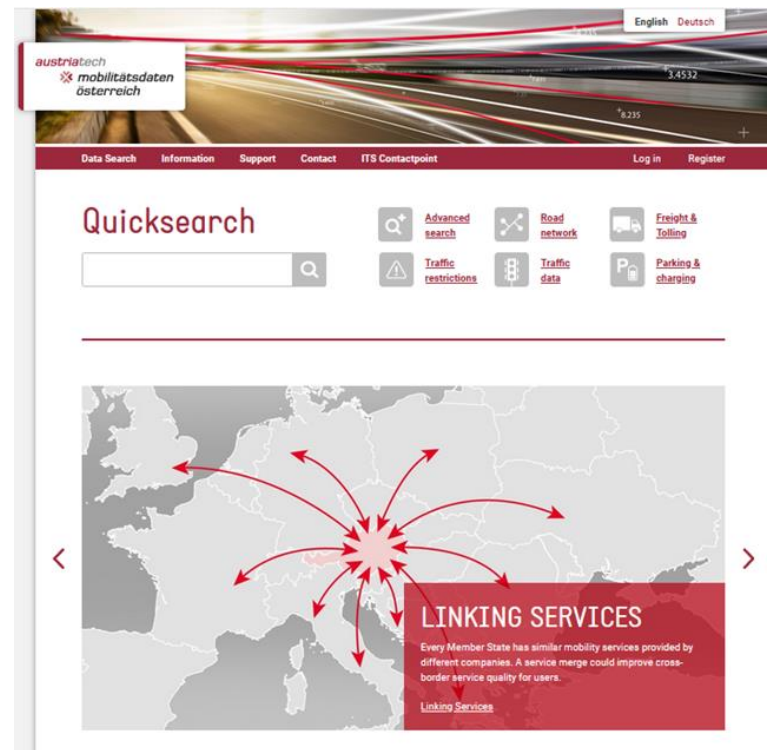
Austrian NAP Functionality
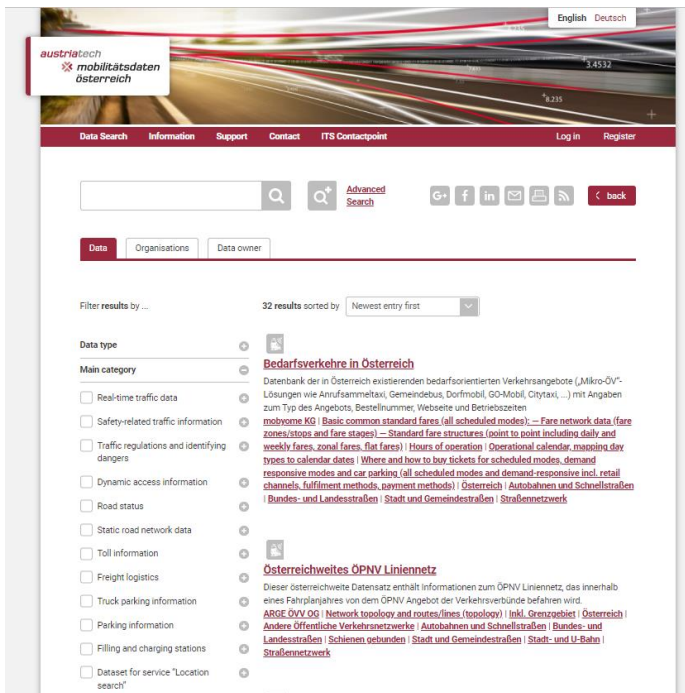
- Dual Language (EN/DE)

- Registration needed only for data owner

- Standardized format for entering new data sets (meta-data-catalogue)

- Searching and filtering according to specific criteria

- Getting in contact with data owner for retrieving data

Available data on Austrian NAP

DR No. 2017/1926 (a) Multimodal travel information services
Public transport network and timetable, car sharing provider, OJP exchange points, geo information, charging points e-cars, parking information

DR No. 886/2013 (b) Safety relevant free traffic information
planned and unplanned events, toll information, traffic status, dynamic traffic signs, construction sides

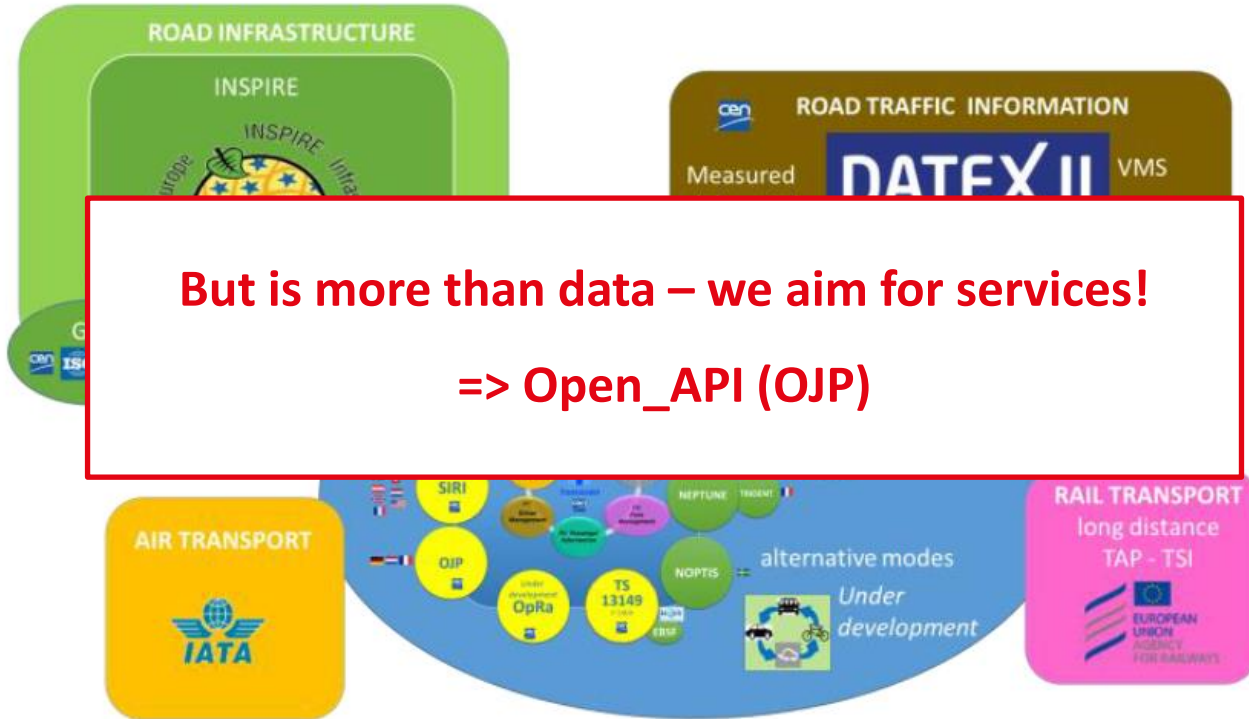| DR No. 2015/962 (c)
Real-time traffic information services |
|---|
| Road traffic news feed (Road operator), Events, Traffic information channel |

DR No. 885/2013 (e) Secure truck park spaces
Truck parking information (road operator)

Data standards in accordance to the European ITS Directive (2010/40/EU)

Standardisation

But is more than data – we aim for services!

=> Open_API (OJP)

Support to Austrian Stakeholders

Active Stakeholder-Engagement

**Extension of NAP**

Compliance checks (NAP)

Deployment of standards in Austria

National profiles (e.g. NeTEx)

Compliance checks – DATEX II

1. User registration
2. DATEX II profile Upload by the User (e.g. Member State)
3. Format verfication (preparsing XML)
4. Provision of validation rules (based on minimum required DATEX II elements describing Priority actions b, c, e
5. Main profile validation/XML parsing procedure, generation of Log-Files
6. Generation of the Final, Downloadable Validation Report
7. End of the Validation process
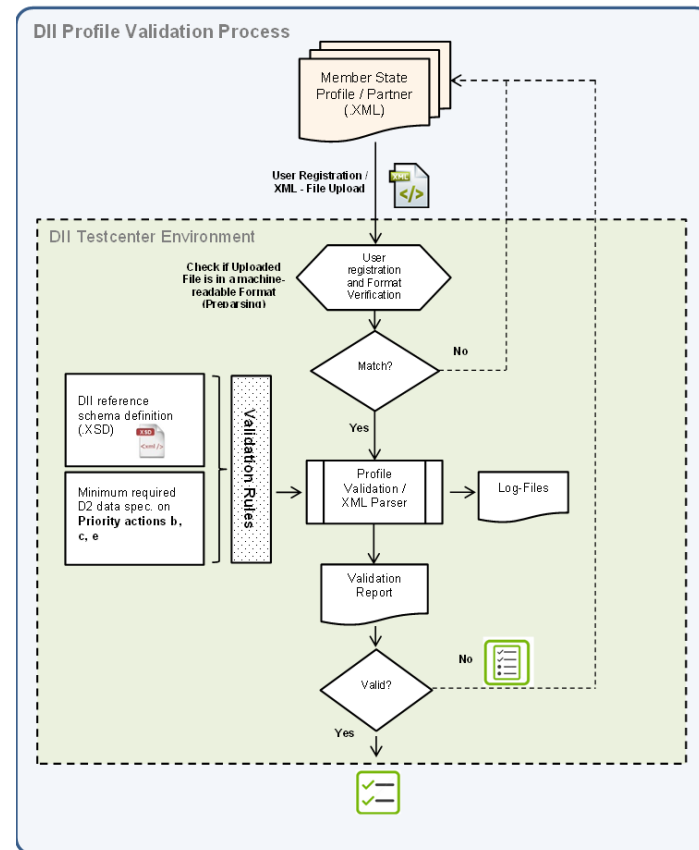
European harmonization

NAPCORE – National Access Point Coordination Organisation for Europe

- Generating a coordination process to harmonize National Access Points (NAP's) and National Bodies (NB's) in Europe

- Standardization EU-wide data for easier usage

- Realization of Delegated Regulations (RL 2010/40/EU)

- Generate a basis for a harmonized EU mobility data space

All Member States incl. Norway and Switzerland and 3 private organisations

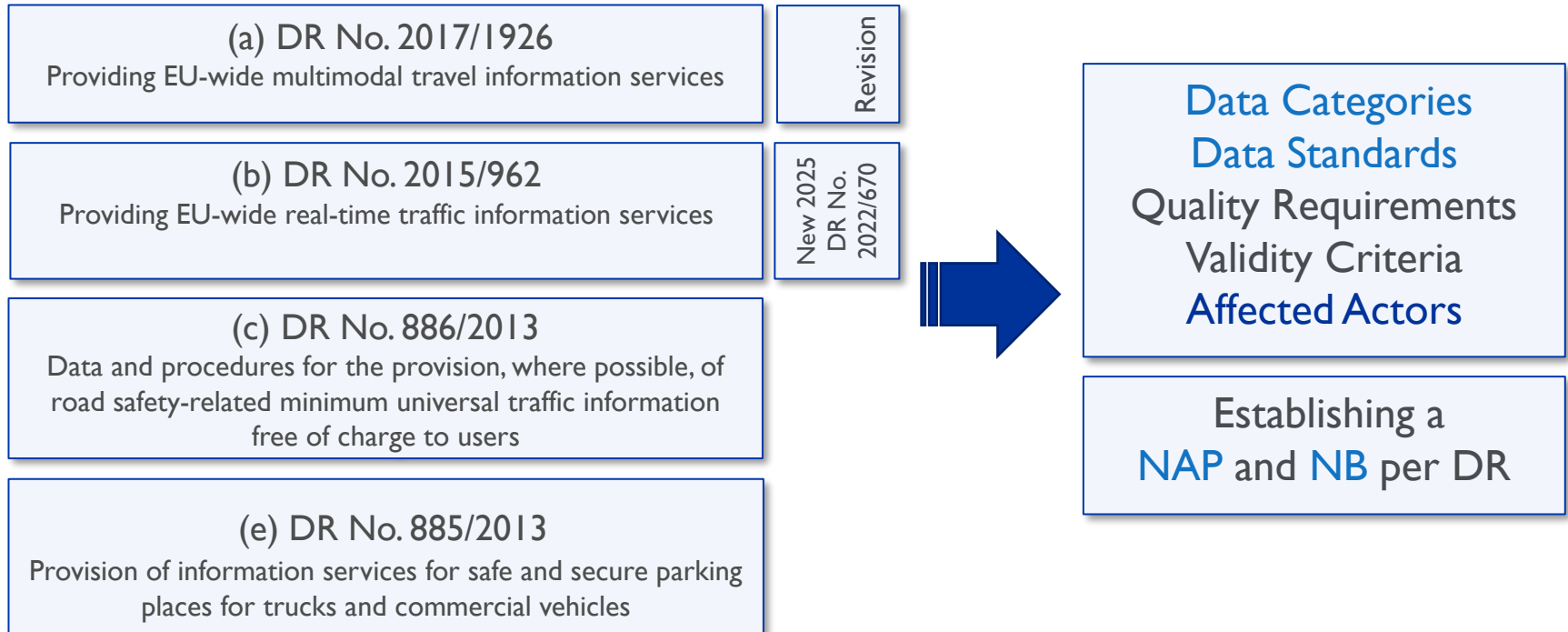33 Partners /37 Implementing Bodies /3 Associated Partners

Connecting Europe Facility (CEF)

Budget: 14 Mio € / EU-Funding: 12 Mio €

Time: 01.04.2021 – 31.12.2024

https://napcore.eu

NAPCORE – Delegated Regulations

(a) DR No. 2017/1926
Providing EU-wide multimodal travel information services

(b) DR No. 2015/962
Providing EU-wide real-time traffic information services

(c) DR No. 886/2013
Data and procedures for the provision, where possible, of road safety-related minimum universal traffic information free of charge to users

(e) DR No. 885/2013
Provision of information services for safe and secure parking places for trucks and commercial vehicles

Revision

New 2025
DR No.
2022/670

Data Categories
Data Standards
Quality Requirements
Validity Criteria
Affected Actors

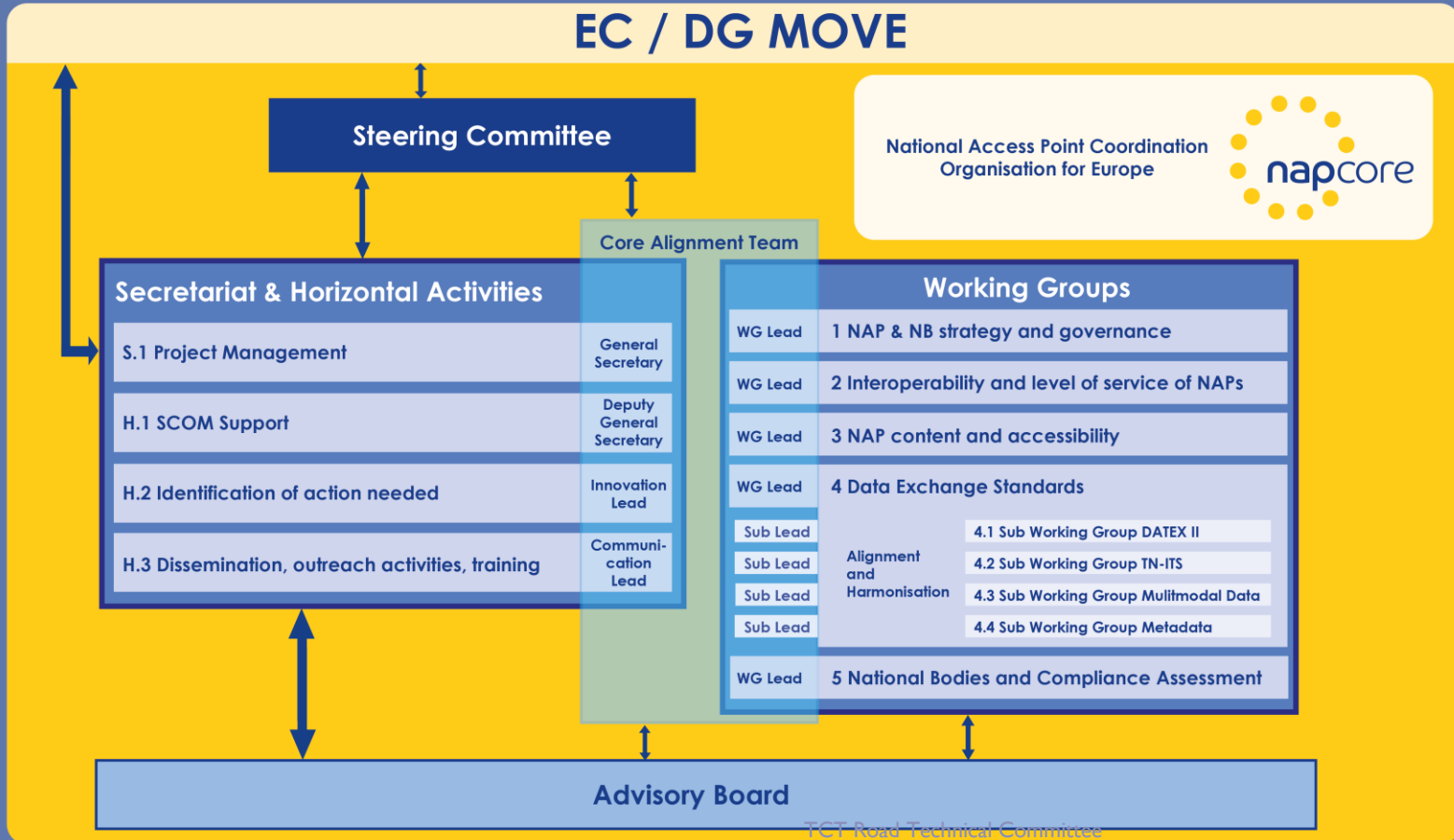Establishing a
NAP and NB per DR

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Implications

- Each NAP provides information regarding DR's related data and data services with different data descriptions, standard usage and data interpretations.

- No interoperability of NAPs & mobility data!

(Hendriks, L., et al. (2021). EU EIP - Annual NAP Report 2020)

# NAPCORE Governance Structure

Harmonization activities

- Generating common understanding of delegated regulations, topics, definitions, and reliabilities
- Standardized data descriptions (Meta Data – DCAT-AP)
  - Comparability of listed data
  - Enable meta data/data harvesting base
- Common definition of data & service quality criteria
- Common use of standards and data profiles
- Common description of NAP functionalities
  - Interface definitions
  - Core functionalities
- Common processes and forms for Compliance Assessment

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Proof of Concept

- Demonstrators
  - Real world use of NAP information
  - Meta Data exchange
  - Exchange to European Access Point (EAP)
  - Alternative Fuels infrastructure data harvesting

- Ambassadors – Data related use- and test cases
  - Cycling infrastructure data
  - Mobility as a Service
  - Parking infrastructure data

- NAPCORE Mobility Data Days
  - Cooperation
  - Creating common understanding
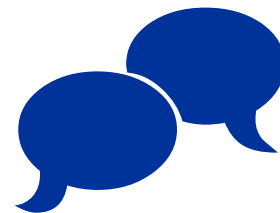 - Exchange with Stakeholders

Stakeholder Involvement – Advisory Board
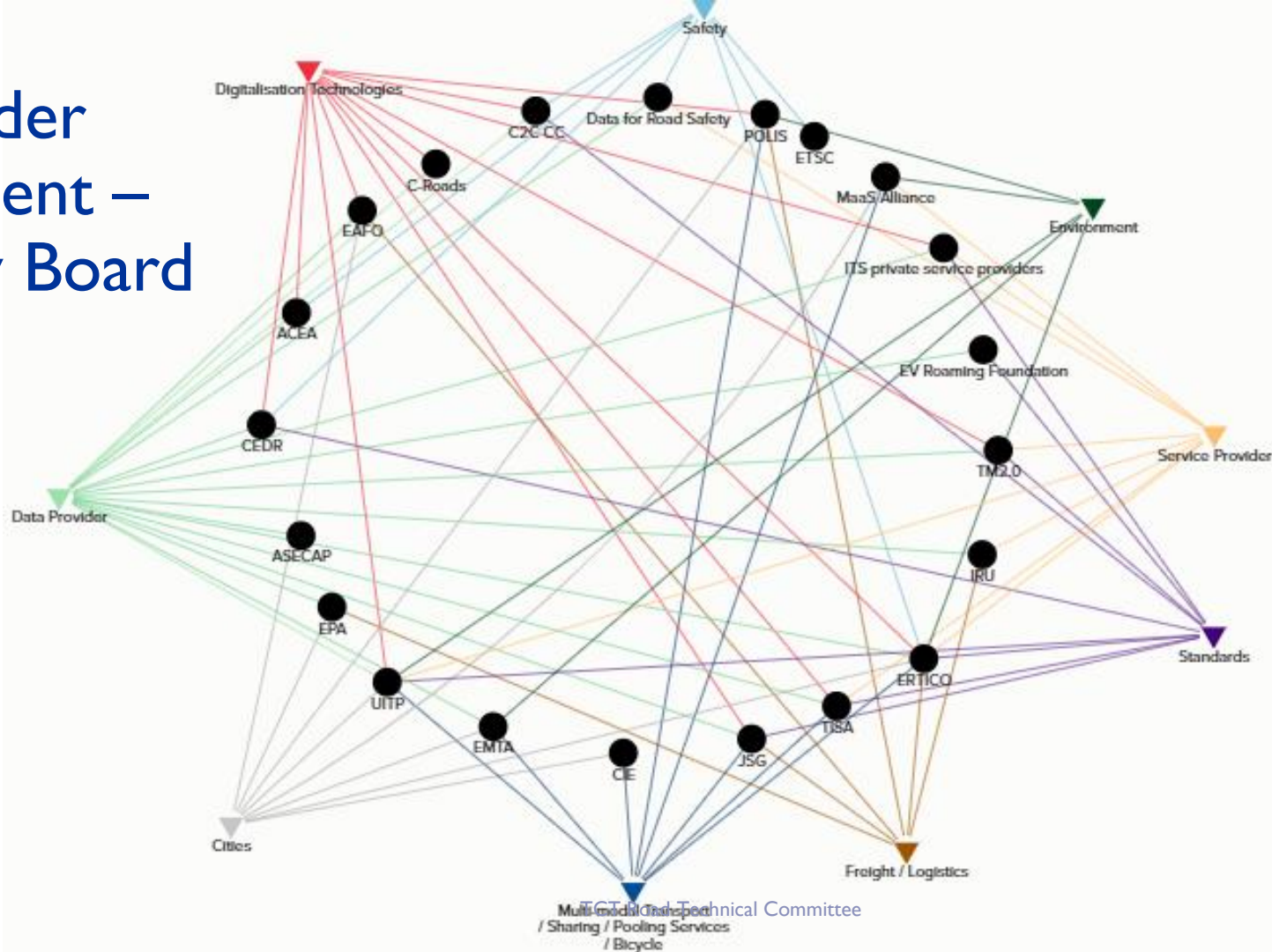
NAPCORE – Keep up to date

- NAPCORE website is online: napcore.eu

- NAPCORE has its own LinkedIn Group

- NAPCORE YouTube channel

- Reach out bilaterally to General Secretary, activity leads ⇨ napcore@bast.de

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Thank you for your attention!

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