OPEN DATA FOR BETTER URBAN MOBILITY

Urban Mobility Days 2023 – 4 October 2023

Data4PT has received funding from the European Union's DG for Mobility and Transport under grant agreement No MOVE/B4/SUB/2019-104/CEF/PSA/SI2.821136

Agenda

- Let’s meet! Project Overview
- European context
- Using Open data from National Access Points (NAPs)
  - How Czech Republic built their NAP data
- NAPs and Standards
  - How Austria is implementing MMTIS
- Global recommendations
- Q&A

LET'S MEET!

UITP Welcome Keynote

Umberto Guida
Head of Third Party Funded Projects Strategy

Knowledge and Innovation, UITP

Hello! I am Anastasia.

Requirements Committee Chair @ ITxPT

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Hello! I am Tu-Tho

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Hello! I am Julia.

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Data4PT – Project overview

Global overview

A CEF Programme Support Action (2020-2023) to **accompany and facilitate** Member States and other relevant stakeholders in the implementation of MMTIS Delegated Regulation

Fact sheets

- Coordinator: UITP ADVANCING PUBLIC TRANSPORT
- Technical management: ITXPT INFORMATION TECHNOLOGY for PUBLIC TRANSPORT
- Budget: 2,423,200 €
  Funding: 1,998,560 €
- Duration: 2020-2023 (3 years)
- Partners: Austria , Croatia, Czech Republic, France, Denmark, Italy, Portugal, Slovenia, Sweden

Different ways to provide support

Training

Knowledge base

Wiki page...

Technical support

Validation Tools

Exchange of experiences and best practices

Stakeholders fora **...**

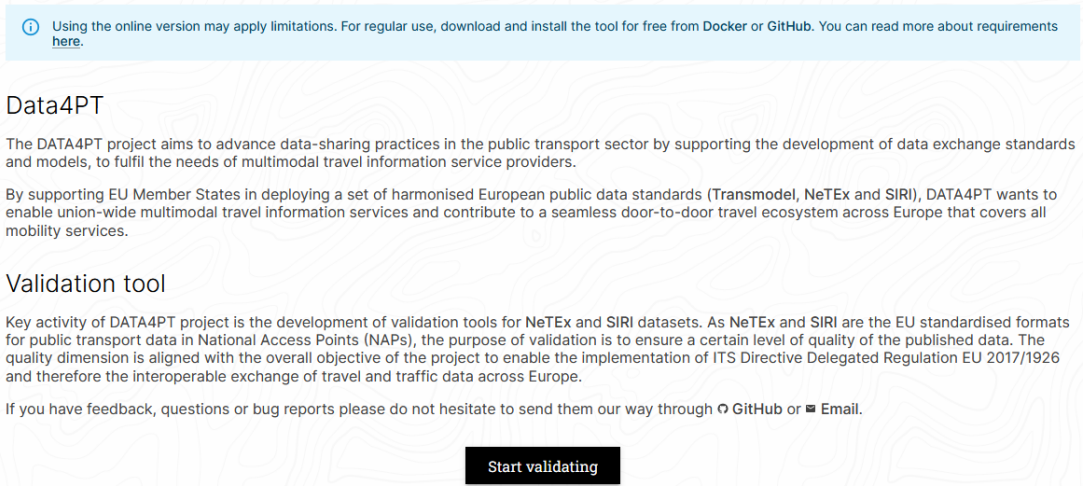
Support beyond project duration

Long term support

datapt

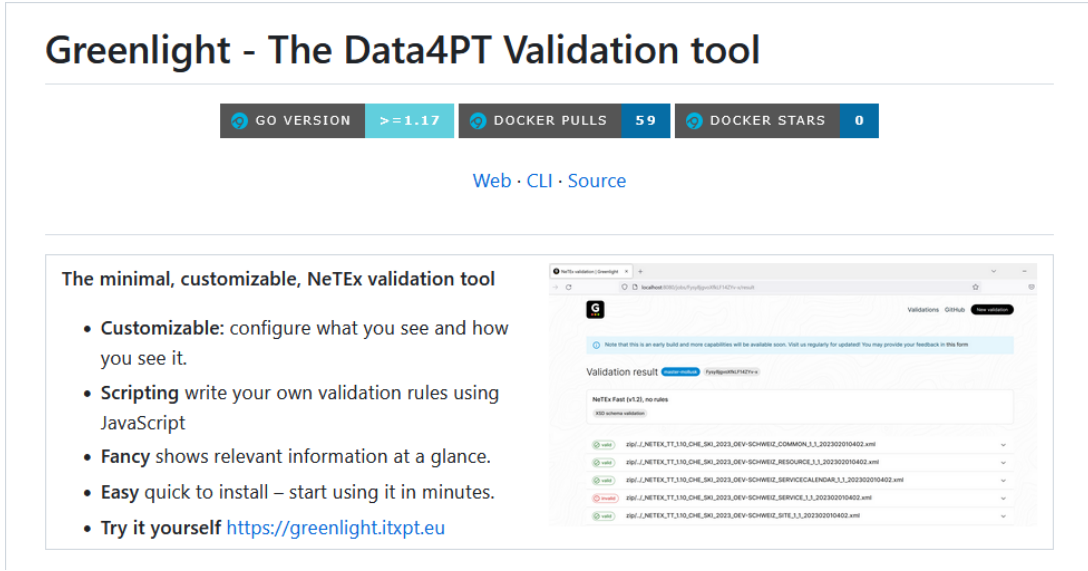
Focus on Greenlight NeTEx validator

Web interface



https://greenlight.itxpt.eu/

Core tool



https://github.com/ITxPT/DATA4PTTools

Raise your hands if…

- You are familiar with
  - EU Regulations
  - Your National Access Point team
  - NeTEx / SIRI
- You manage your mobility data
  - Internally
  - With partners
  - Not at all
- You use mobility data to build SUMPs

EUROPEAN CONTEXT

The European Strategy for data

The **European Strategy for data** (2020) aims to make the EU a leader in a data-driven society.

The **Data Governance Act** (2020) facilitates data sharing across sectors and Member States.

The **Data Act** (2022) clarifies who can create value from data.

Ten **European common data spaces**, ranging from industry to mobility, from European Green Deal to energy and health.

Applied to mobility data

Unleash full potential of **data**.

By 2030, integrated electronic ticketing facilitates seamless multimodal passenger transport.
Freight transport will be paperless.

By 2030, automated mobility will be deployed on large scale.

The impact on (y)our work

ITS Directive | **MMTIS Delegated Regulation** | ***Pending* - MDMS (MaaS) Delegated Regulation**

The “mother” of all

- Open data
- Standards & Technical specifications to follow
- Interoperability

Open data on NAPs

- Creation of NAPs
- Data categories
- Types of data to publish
- Data formats to use

MaaS regulations

- Rights & obligations
- Relationships between operations and platforms
- Framework for ticketing

USING OPEN DATA FROM NAPS

Open data on NAPs

Is not only…

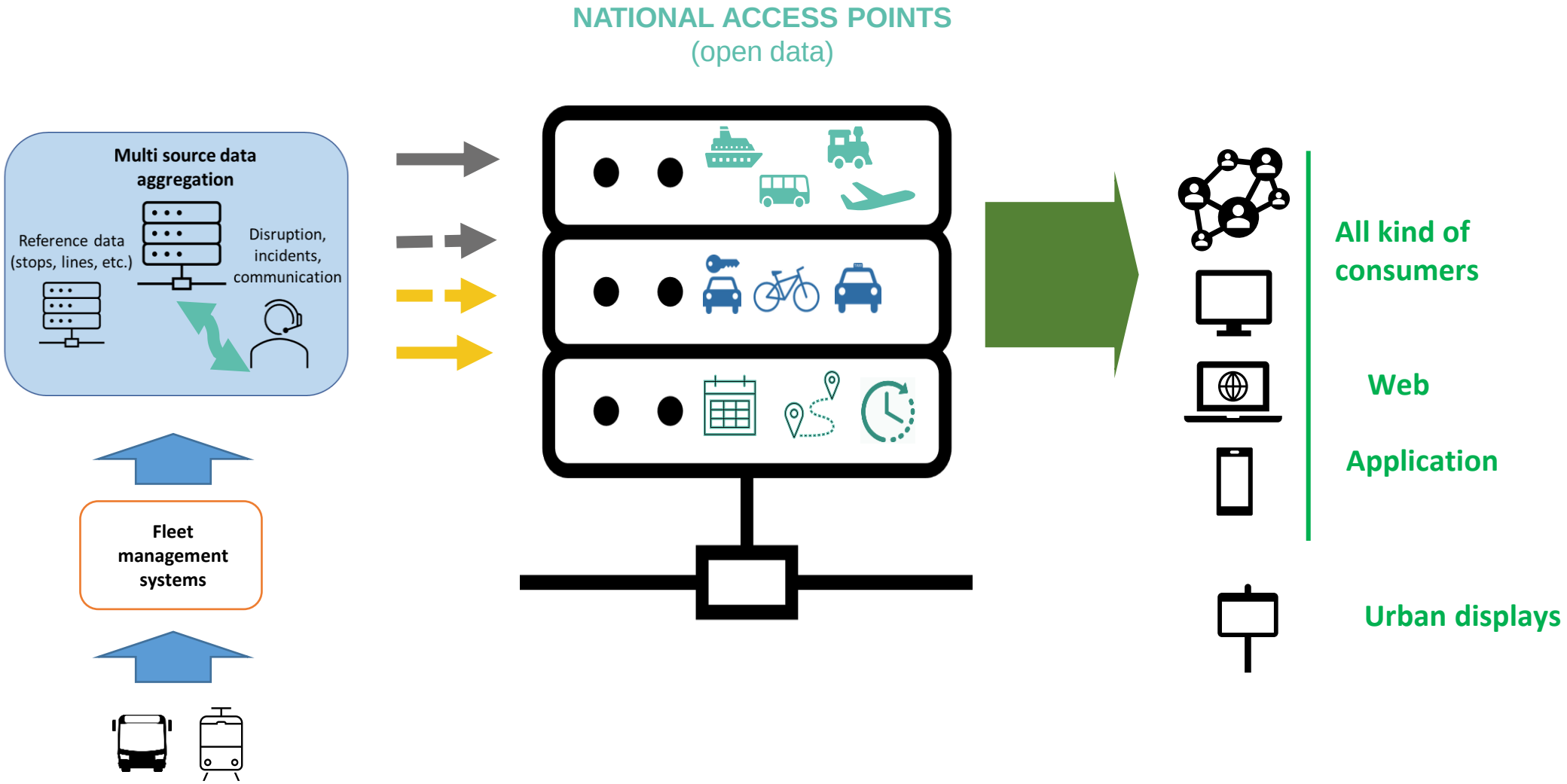
- To comply with EU regulations
- To create a burden on your teams
- To check a box

- For mobility data

But should be…

- To support citizens' trust
- To help build new mobility services collaboratively
  - National Trip Planners
  - Real-time map of available services
- Facilitate better urban mobility
  - Assessing
  - Improving
  - Planning

Using open data from NAPs



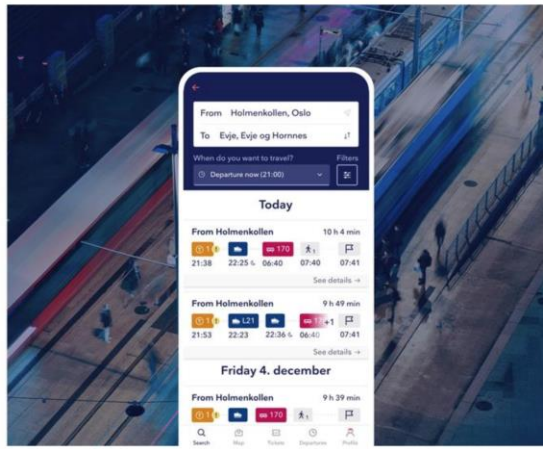
Some concrete use cases…

Norway: NAP data to feed a National Trip Planner

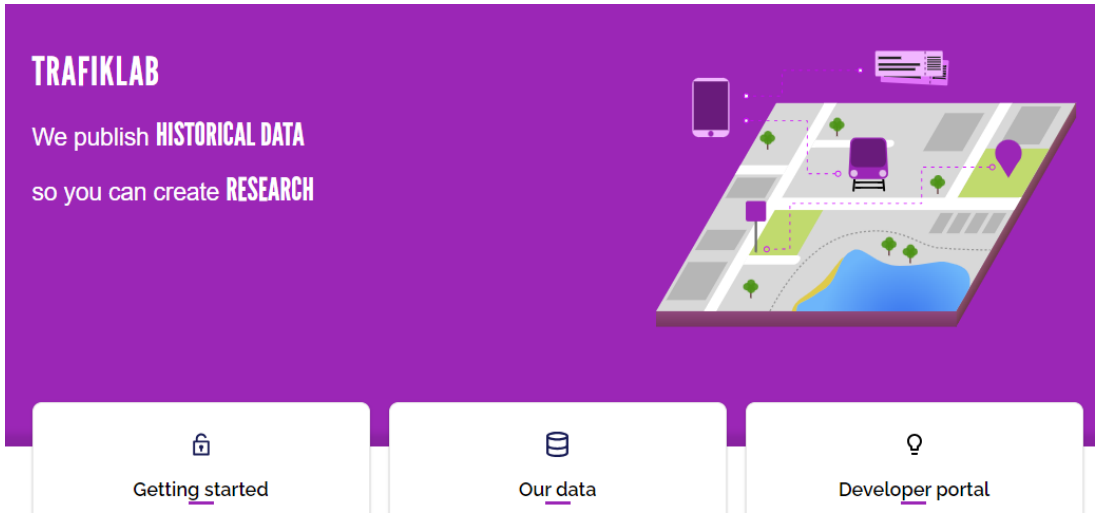
OpenTripPlanner 2.0 is here

Try the next generation journey planning service, focusing on travel by scheduled public transportation in combination with bicycling, walking, and mobility services.

ENTUR

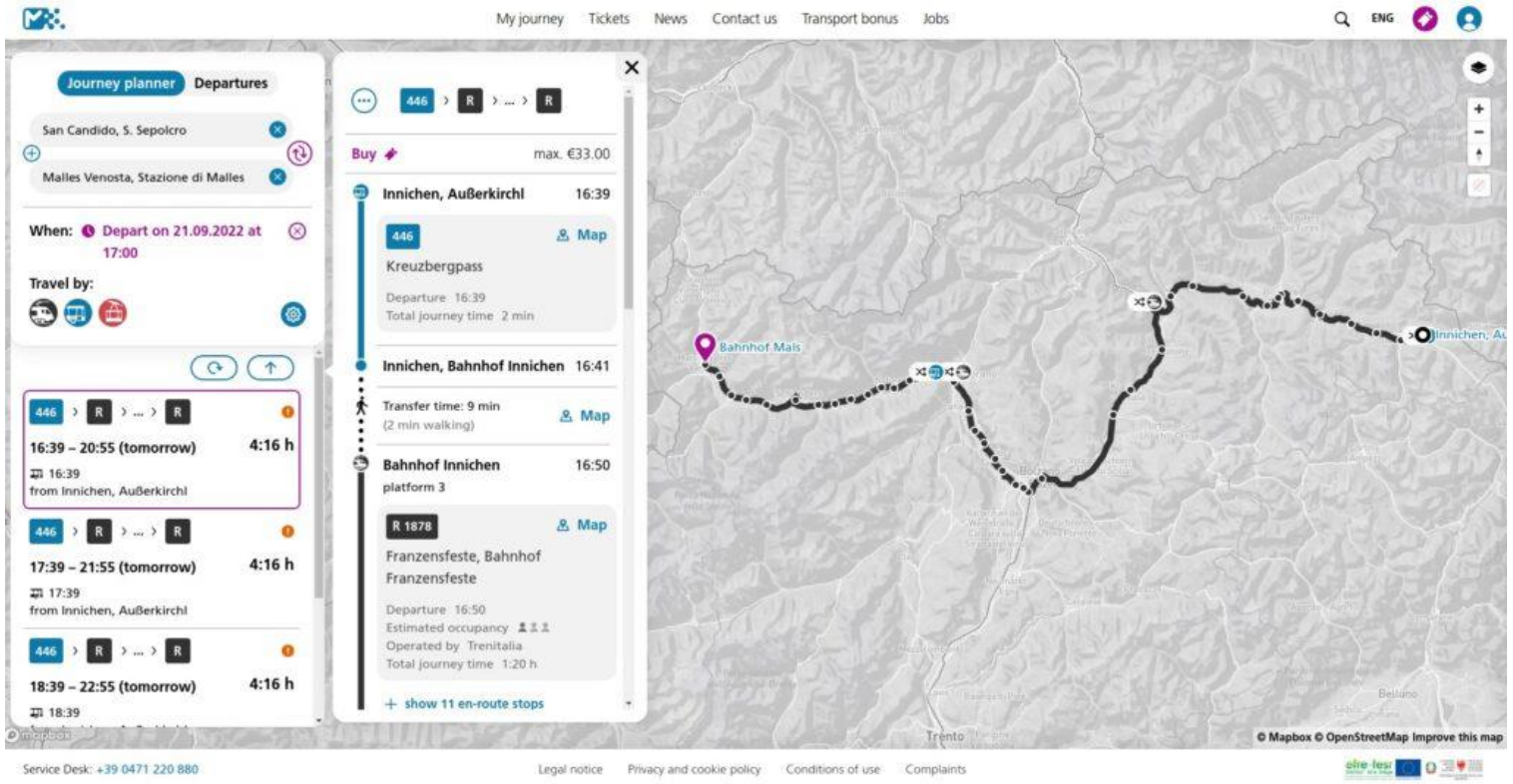


Sweden: NAP data to enable National Distribution Service (NDS) for public transport tickets connecting all operators



Visit DATA4PT website for more insights in https://data4pt-project.eu/news-events/

Some use cases…



LinkingAlps - interlinking existing regional or national journey planner services from all neighboring countries, with a focus on multimodal transport (public transport, railways, new modes)

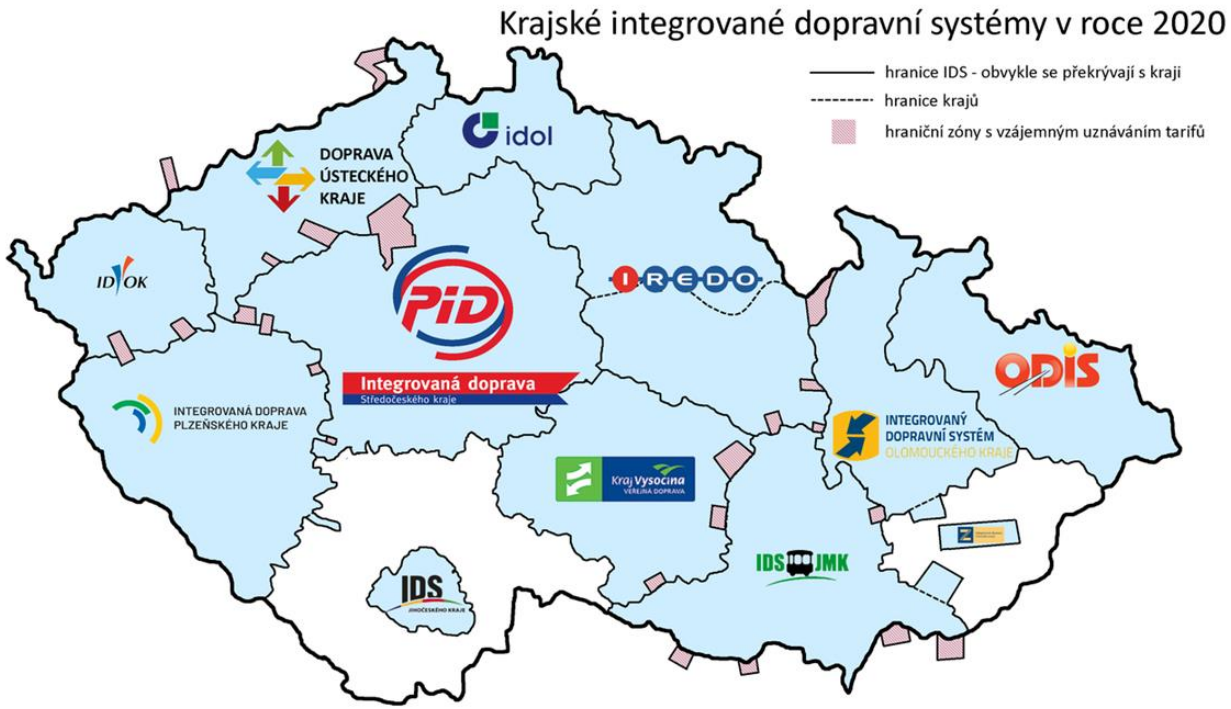
Visit DATA4PT website for more insights in https://data4pt-project.eu/news-events/

How Czech Republic built their NAP data

14 Regions & **CIS JŘ**

✓ **1 Data National Information System** for Timetables

✓ **1 User Interface** for Sending Data



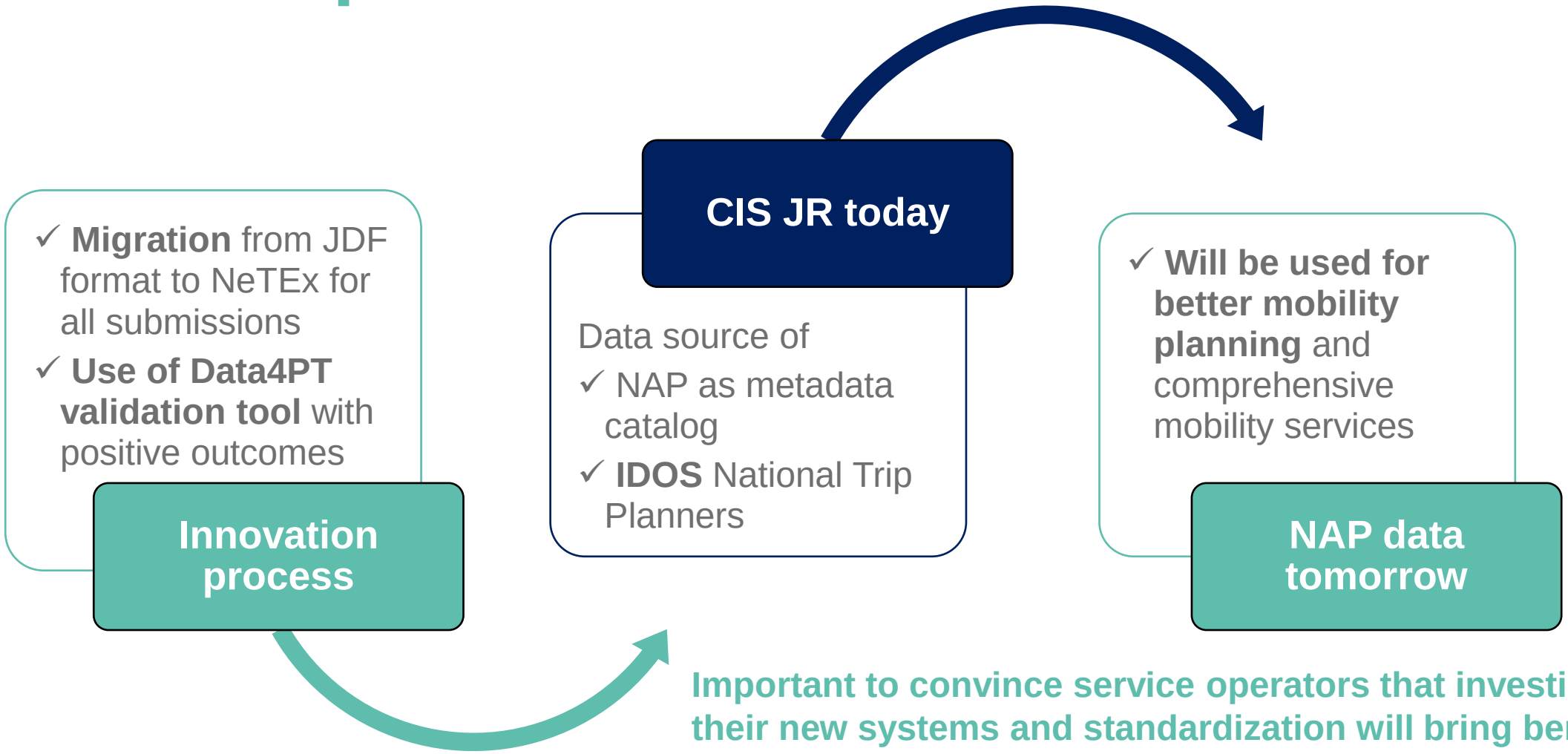
How Czech Republic built their NAP data

CIS JR is operated under the auspices of the Czech Ministry of Transport

Timetables are **submitted to CIS JR by**:

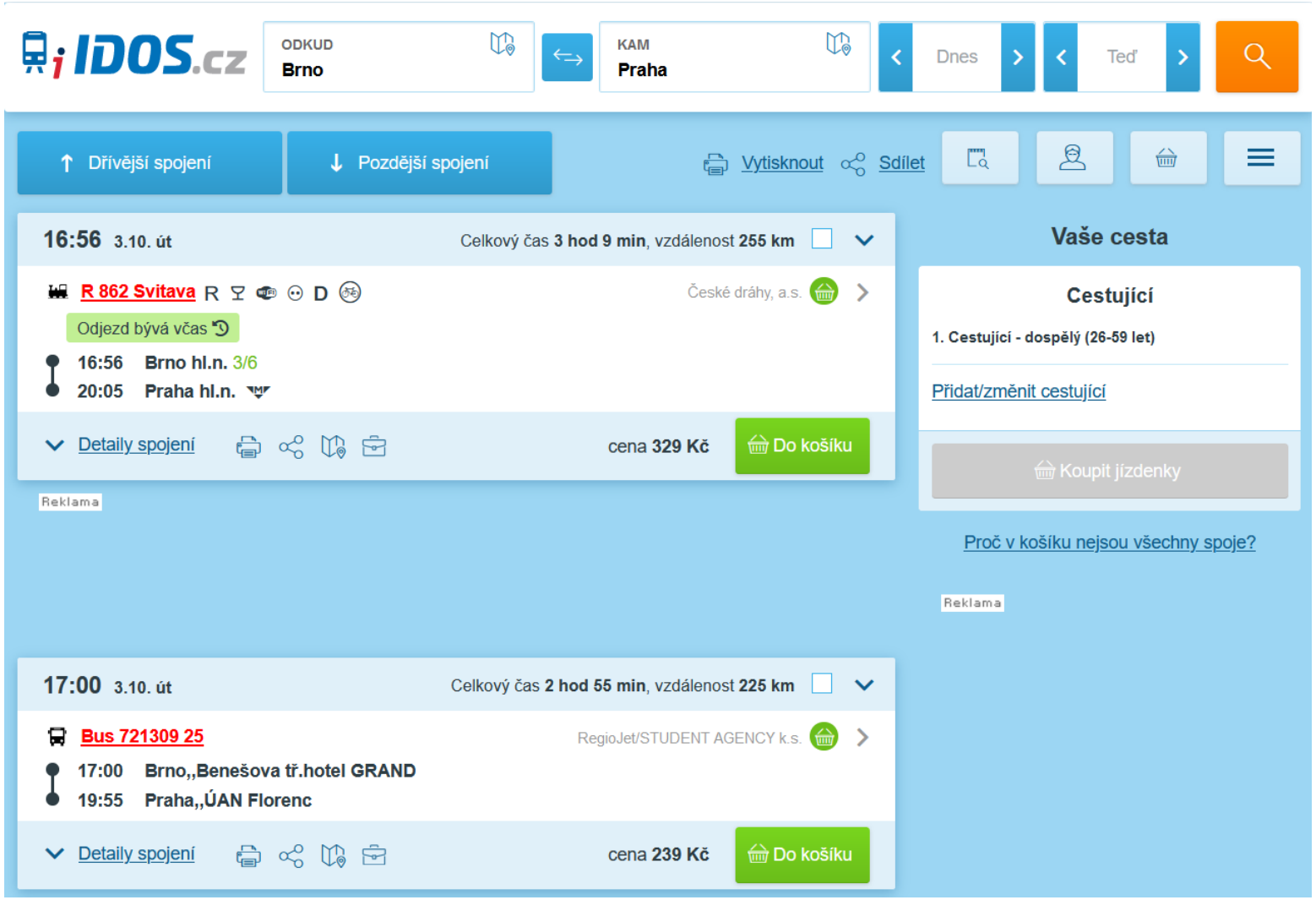
- **Transit authorities** of regional/city councils (National Regular Public Transportation Authority).
- **Carriers** (International Regular Public Transportation), railway operators (Public Railway Passenger Transportation on nationwide and regional railways).
- Railway **administrative authorities** (Public Railway Passenger Transport for the tram, trolleybus, special and cable railways).

Czech Republic & their NAP data



Important to convince service operators that investing in their new systems and standardization will bring benefits

IDOS National Trip Planners



IDOS National Trip Planners

NAPs and Standards

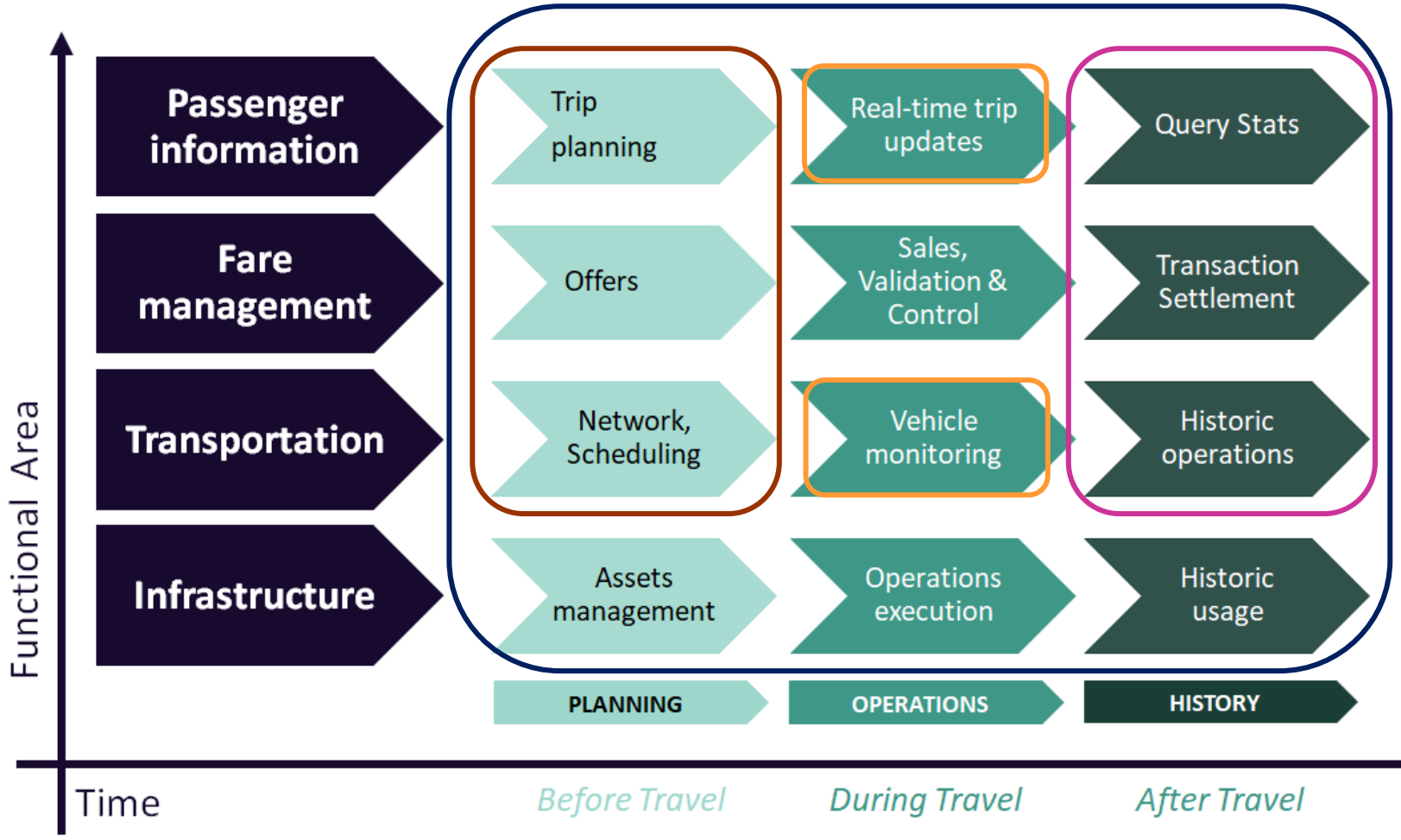
Open data on NAPs is useful when…

- Interoperable via EU recommended standards & specifications
- Of high quality
- Re-used (consumed)

Why standards?

- **Facilitate data exchange & sharing**
  - Between different organizations
  - Between different sectors
  - Between different systems
- Stimulate **tailored solutions to meet multiple and different needs**
  - Same questions = same answers
  - Localize / Personalize leveraging the same base
- **Reduce costs** of development & Scale-up

EU standards for public transport



Transmodel

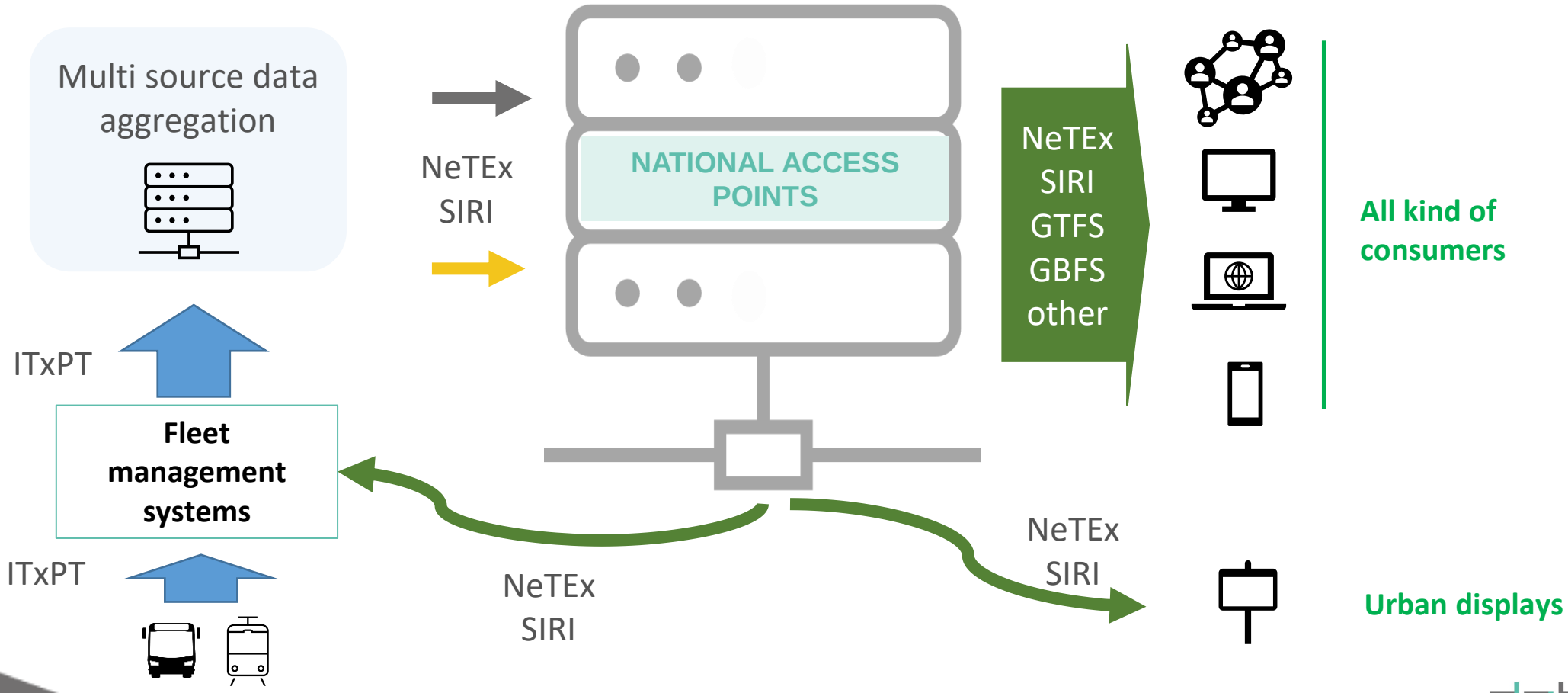
NeTEx

SIRI

OpRa

ITxPT specifications from on-board to back-office systems

Standardised data for optimized data flow



How Austria is implementing MMTIS

AustriaTech is affiliate body for Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology (BMK)

- ITS Directive 2010/40/EU converted into **Austrian national law IVS-Gesetz** (IVS-G 2013) including the priority areas; (static data mandatory, dynamic data optional)
- Providing data according to the requirements DR 2017/1926, supported by CEF PSA “PRIO Austria” (2018-2021) **focusing on NeTEx implementation** (Austria NeTEx Profile released in 2021)

Austrian NAP: Implemented architecture as data directory

- **Online Meta data Catalogue** (no data exchange, data sets examples)
- Usage of the **Coordinated Meta Data Catalogue from EU EIP and DCAT-AP**
- **Standardised format** for description of data, data provider, contracts, etc.
- Delegated regulations (A,B,C,E) implemented
- **Continuous development** of NAP and
- **Close Cooperation with the National Body** (ITS Contact Point) who is responsible for review the self declarations (§9 MMTIS)

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

How Austria is implementing MMTIS

Austrian NeTEx Profile

- Delegated Regulation 2017/1926
- Export Public Transport Data from real life system
  - Timetables
  - Network
  - Transport Lines, …
- Format NeTEx – EPIP conformity
- Development released 12/2021

9 federal states – 1 Data collection system – 1 user interface “Mobilitätsverbünde Österreich” – MVO https://mobilitaetsverbuende.at/

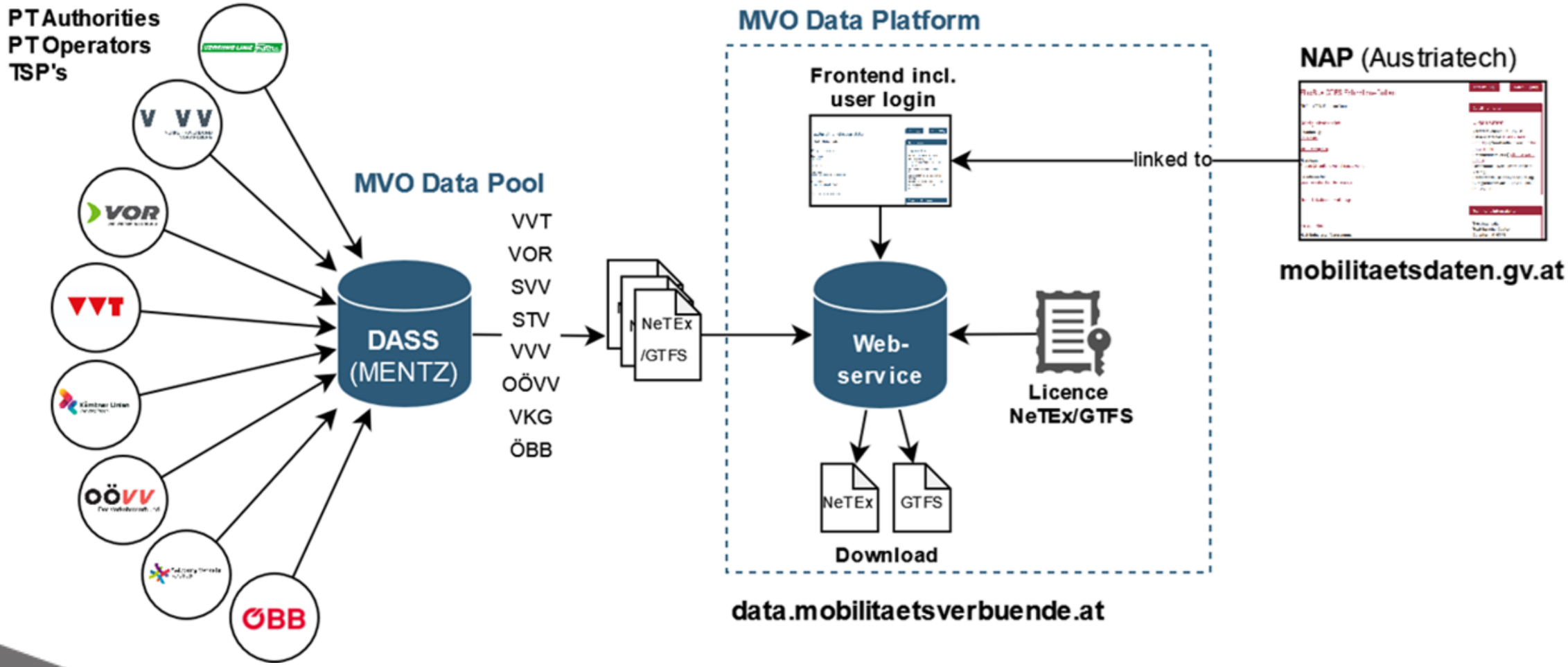
Testing and Validating NeTEx – Results

- Data Export is EPIP conform
- Manual test positive
- **Data4PT Validator Tool result positive**
- Data Export contains more information then the standard EPIP Profile
- **NeTEx Export publicly available at NAP Austria**
- External Feedback of good usability
- New Data exports are in development
- E.g., On demand services

➢ **Validation Tool ensures quality and standard conformity of the provided data on the NAP**

➢ **Can also be used for conformity assessment**

How Austria is implementing NeTEx MVO Data System



Austrian further activities concerning MMITS standards

National events on Implementing NeTEx/SIRI (MMTIS Standards)

- Further involve stakeholder groups in shared mobility, demand orientated mobility and small PTOs which are not covered by PTA and established Stakeholder (scheduled transport)
- Cooperation with the ITS Contact Point
- April 2023, follow up WS in Q4 2023
- Providing information and experts for questions and dialogues, identify stakeholder demand and requirements
- Bringing in best practices from BMK and implementing PTA/PTOs: MVÖ, ÖBB-Infra, Project Domino, Wr. Linien

Upcoming ITS directive and regulations

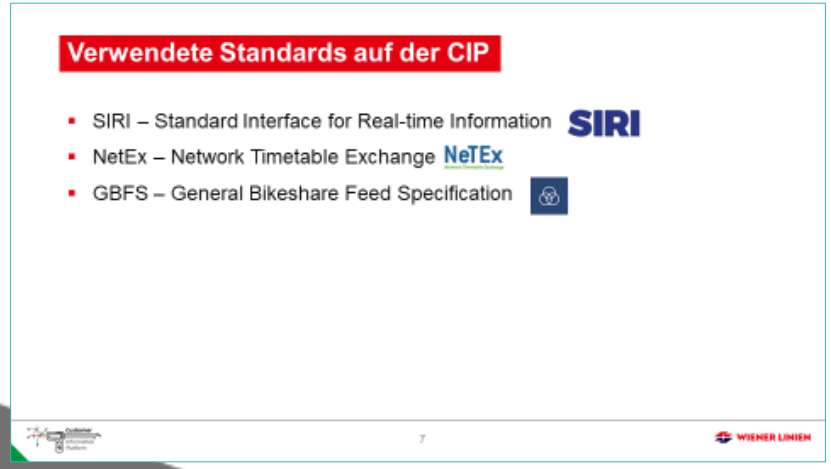
- Informing about new requirements setting up the frame for stakeholders
- Information about NETEX; SIRI, OJP standard development
- Development of SIRI Profile started in Austria

Challenges and benefits of providing standardised data

- **For small PTOs**: Implementing MMTIS raises a **lot of organizational issues** and questions concerning new business models (start-ups), **also technical challenges regarding NeTEx and SIRI** format and administrative support was identified
- **Providing data** in standardised/new formats **demands support, clear guidelines and tools by the NAP**
- **Benefits for stakeholders**: **Data4PT validation tool**, structured and available **information** (FAQ catalogue, manual, guidelines for data provision, reliability etc.)

Example:

- **Positive achievements when setting up new MMTIS standards**, e.g., WIENER LINIEN



What has standard implementation achieved?

- **Data quality**, Data truth, Data sources,
- **Understanding** of data
- **Overview** of existing data
- Overview of required data
- **Simple connection** to the provision platform

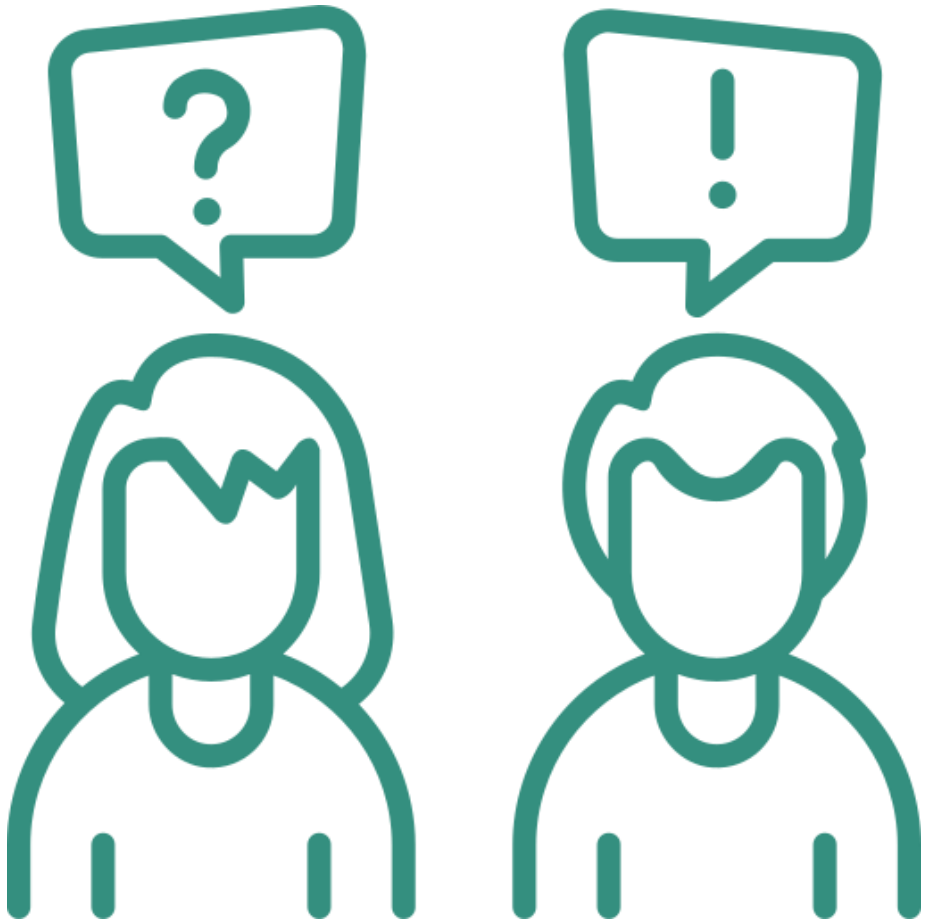
➢ **Benefits from using MMTIS Standards**
➢ **Commitment to MMTIS**
➢ **Commitment to data provision at the NAP**

GLOBAL RECOMMENDATIONS

Recommendations

- Adopt/Migrate to **Transmodel-native systems**
- **Export in both**
  - **NeTEx & SIRI** for feed aggregators, operations systems, NAPs, etc.
  - **Legacy** formats (e.g., GTFS/GBFS) for trip planning apps and any other required systems
- If needed, **convert only from NeTEx/SIRI to legacy formats**
- **Integrate** Canonical & Recommended **validators for each** format
- **Join standardization discussions** and their working groups

Questions? Comments?



Questions to the public

- How can we support to with open data and standards?
- How do you link open mobility data to SUMPs?
- Is your team proficient in EU standards?
- Do you use open data on NAPs to design urban mobility?

Thank you for your attention!

@Data4PT

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