# DATA4PT

# About the Project

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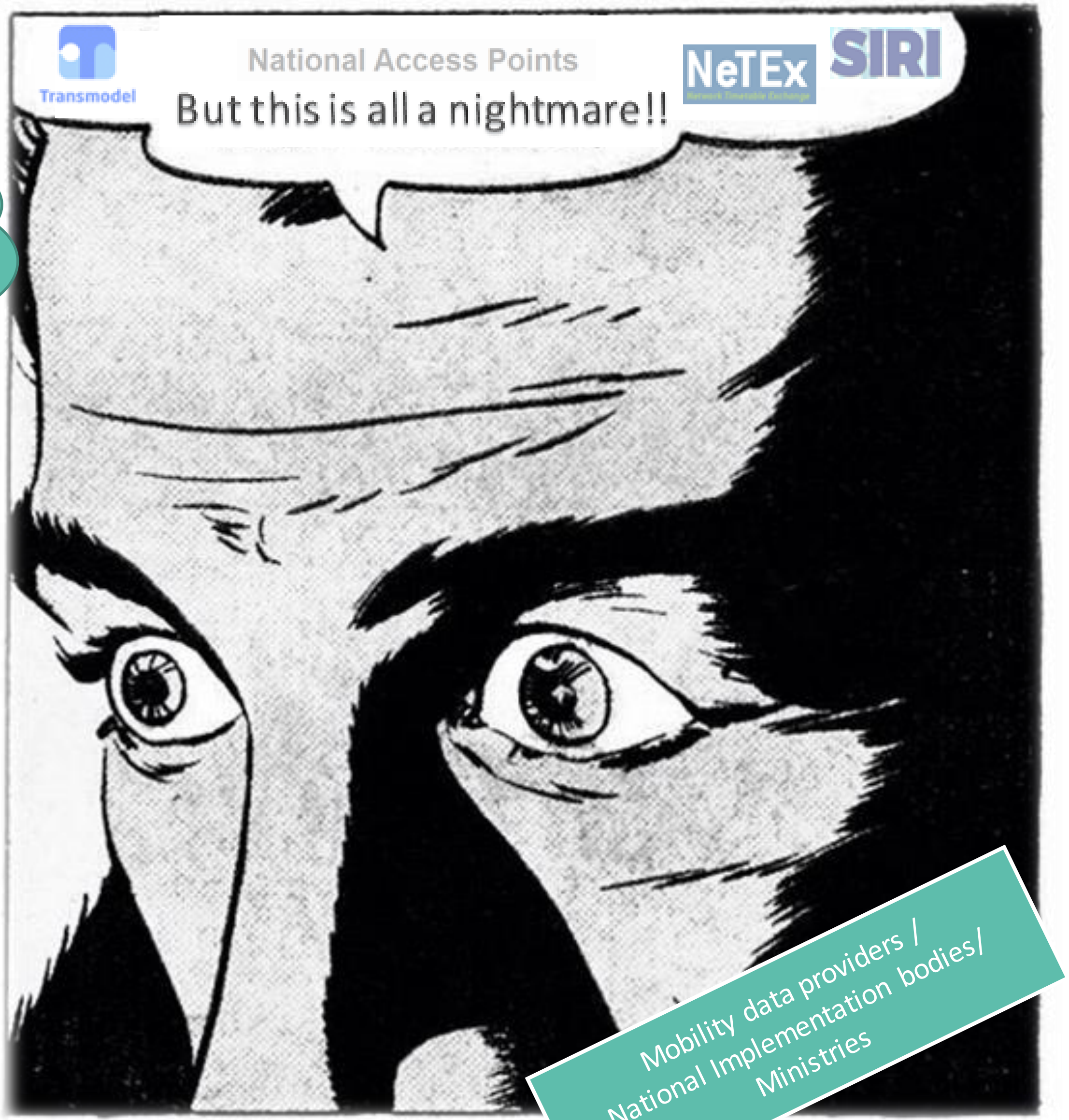
Data4PT has received funding from the European Union’s DG for Mobility and Transport under grant agreement No MOVE/B4/SUB/2019-104/CEF/PSA/SI2.821136

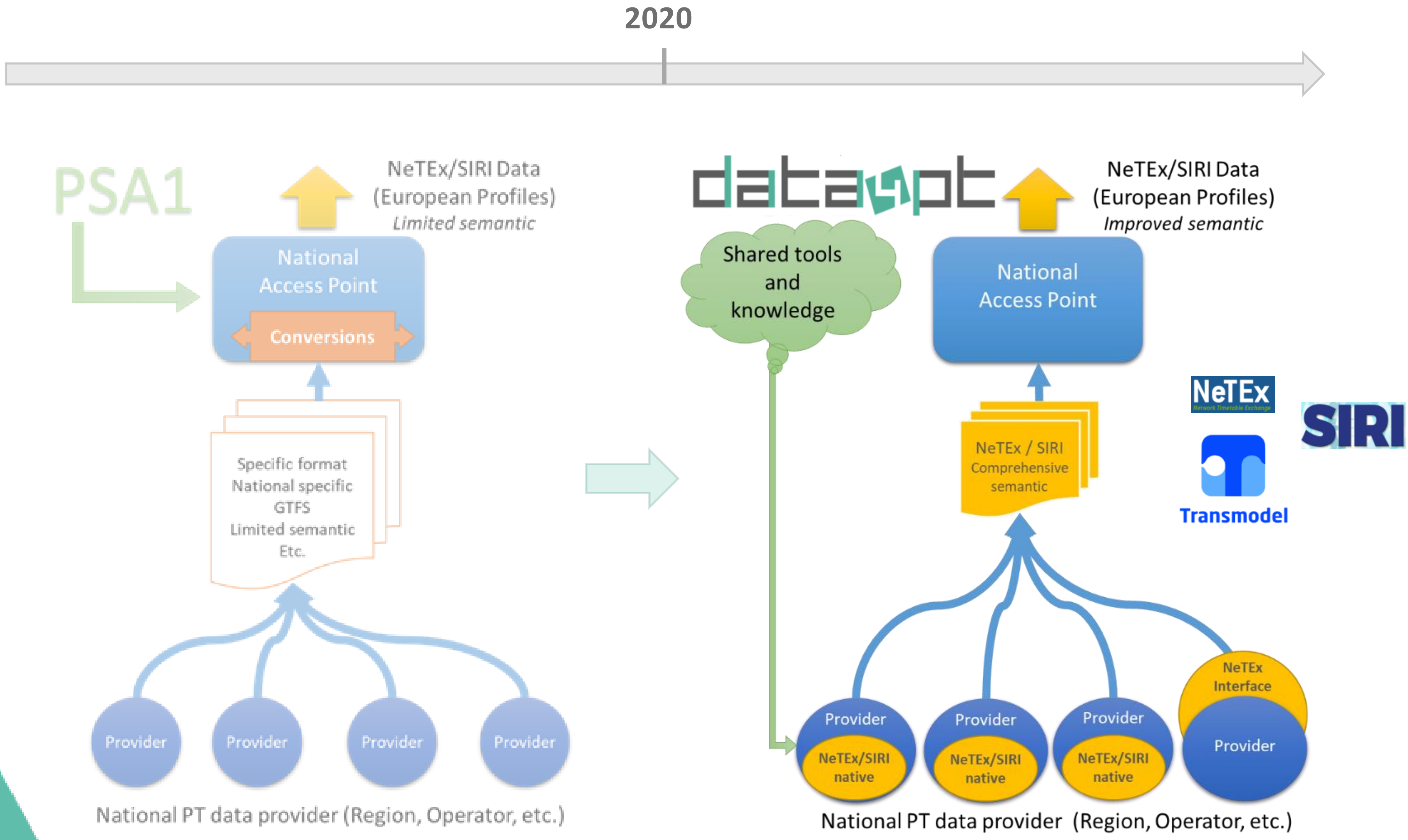
Member States need to implement MMTIS Delegated Regulation

Mobility data providers need to adopt EU Public Transport Data Standards


Transmodel
National Access Points
But this is all a nightmare!!
NeTEx
Network Timetable Exchange
SIRI

Mobility data providers /
National Implementation bodies/
Ministries

# DATA4PT Scope



2020

PSA1

NeTEx/SIRI Data
(European Profiles)
*Limited semantic*

National
Access Point

Conversions

Specific format
National specific
GTFS
Limited semantic
Etc.

Provider

Provider

Provider

Provider

National PT data provider (Region, Operator, etc.)

datapt

NeTEx/SIRI Data
(European Profiles)
*Improved semantic*

Shared tools
and
knowledge

National
Access Point

NeTEx / SIRI
Comprehensive
semantic

NeTEx

SIRI

Transmodel

Provider
NeTEx/SIRI
native

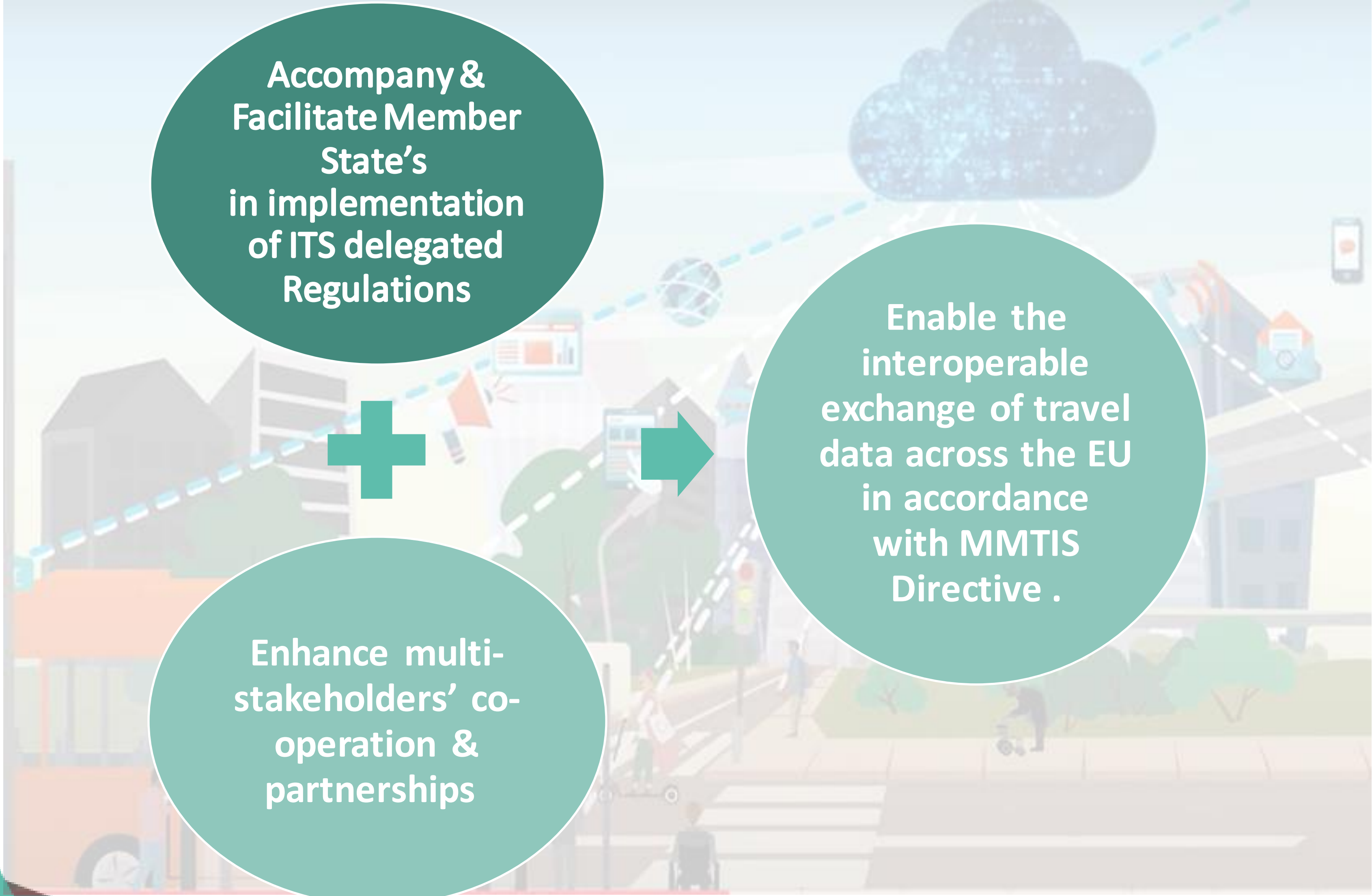
Provider
NeTEx/SIRI
native

Provider
NeTEx/SIRI
native

NeTEx
Interface
Provider

National PT data provider (Region, Operator, etc.)

# Vision



Accompany & Facilitate Member State's in implementation of ITS delegated Regulations

+

Enhance multi-stakeholders' co-operation & partnerships

→

Enable the interoperable exchange of travel data across the EU in accordance with MMTIS Directive .

# Factsheet

**Budget:** 2,423,200 €
**Funding:** 1,998,560 €

CEF programme

**Time span:**
2020 – 2023 (4years duration)

**Coordinator:** UITP ADVANCING PUBLIC TRANSPORT

**Technical Management:** ITxPT INFORMATION TECHNOLOGY for PUBLIC TRANSPORT

**Partners:**
Austria , Croatia, Czech Republic, France,
Denmark, Italy, Portugal, Slovenia,
Sweden

**Observers:**
Germany,UK, Netherlands, Norway,
Switzerland, Belgium, Ireland, Spain, Luxemburg, Poland,
Hungary, European Railways Agency
Shift2Rail Joint Undertaking

# Moreover we build liaisons and collaborate with…

napcore

MOBILITYDATA

ISO

CEN CENELEC

Europe's Rail

And more...

**In order to achieve harmonisation in the domain of multimodal transport data**

# Data4PT provides support in different ways

**Training**

Knowledge base

Wiki page...

**Technical support**

**Validation Tools**

**Exchange** of experiences and best practices

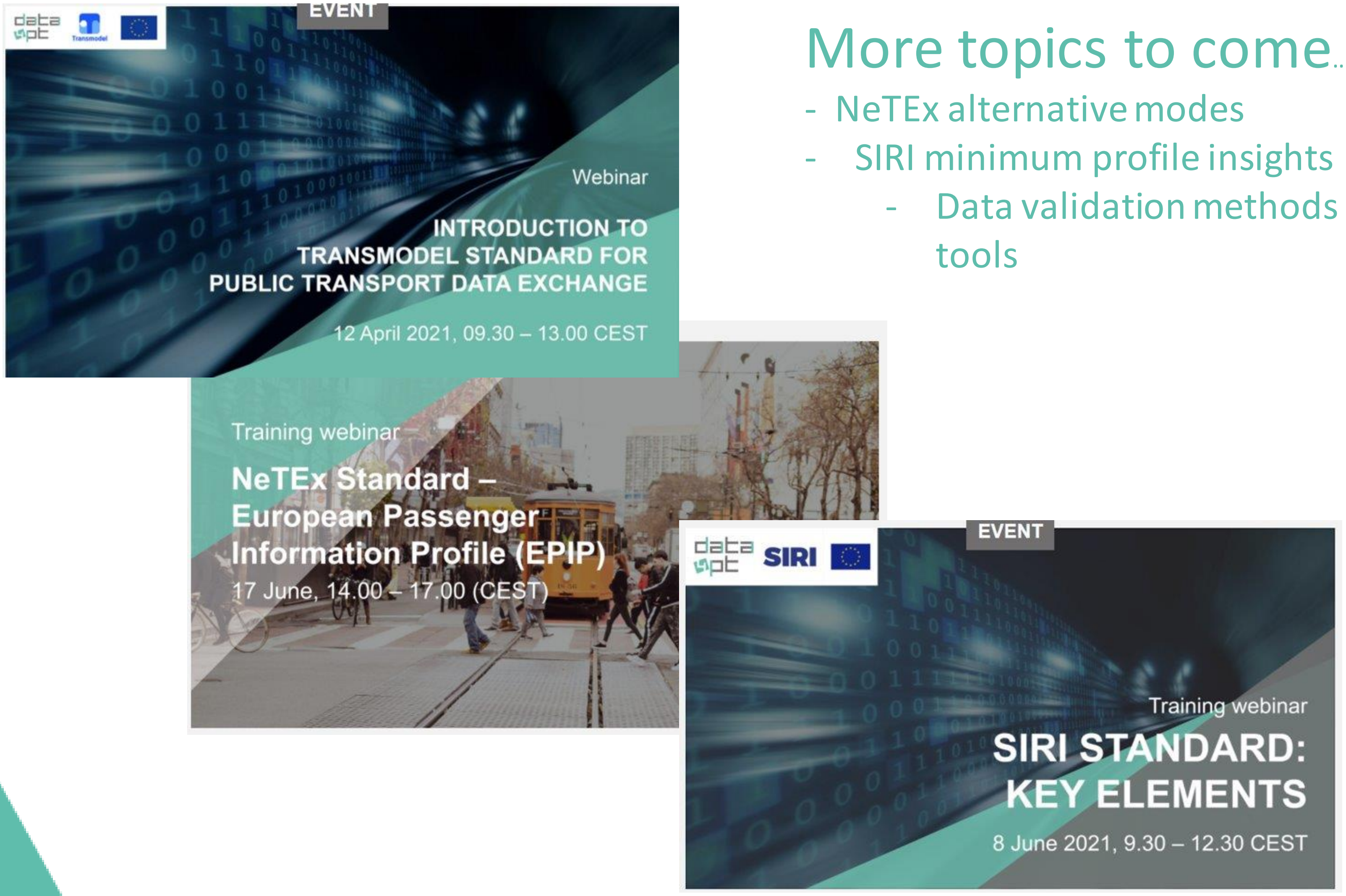
Stakeholders' fora

Support beyond project duration

**Business model**

KNOWLEDGE
SUPPORT
SUSTAINABILITY

# Trainings



EVENT

Webinar

**INTRODUCTION TO TRANSMODEL STANDARD FOR PUBLIC TRANSPORT DATA EXCHANGE**

12 April 2021, 09.30 – 13.00 CEST

Training webinar

**NeTEx Standard – European Passenger Information Profile (EPIP)**

17 June, 14.00 – 17.00 (CEST)

EVENT

Training webinar

**SIRI STANDARD: KEY ELEMENTS**

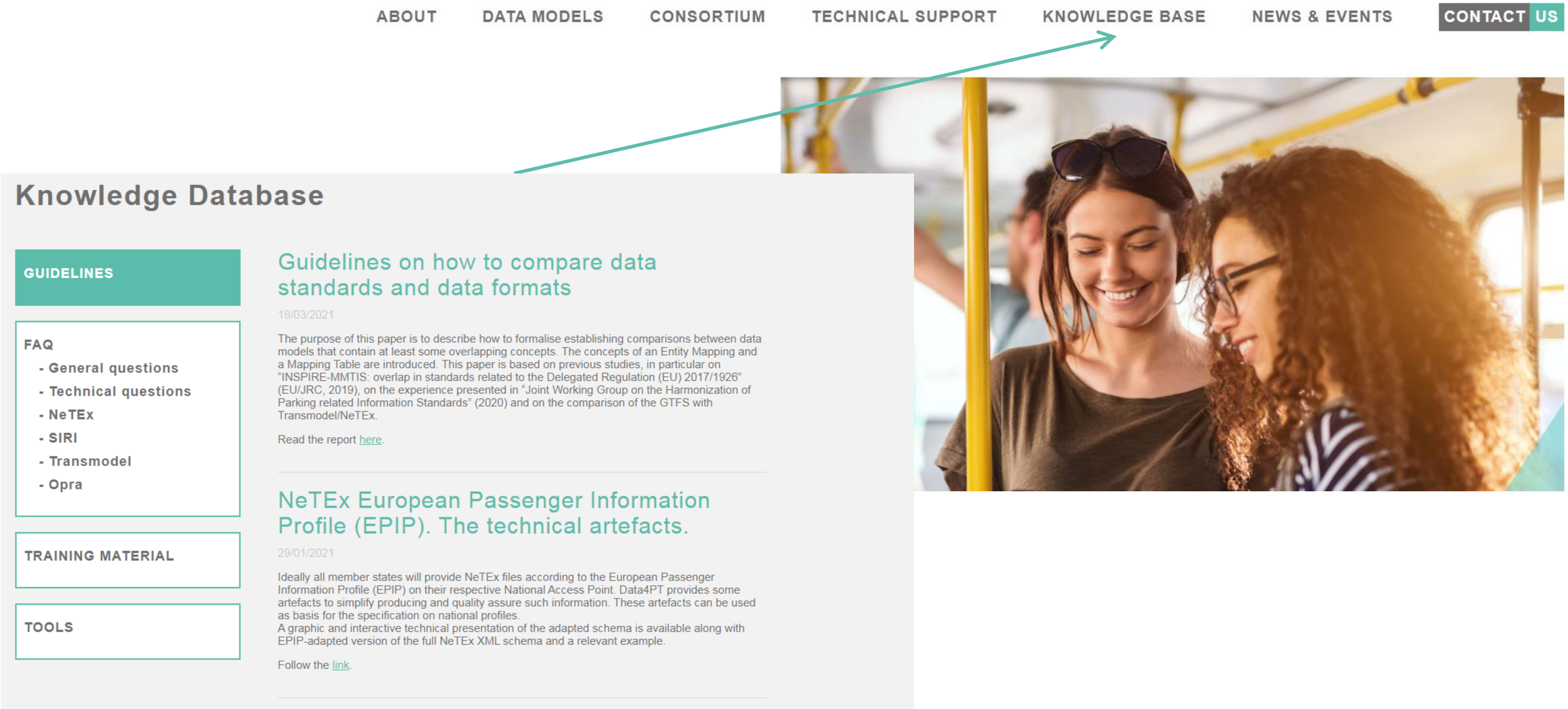
8 June 2021, 9.30 – 12.30 CEST

## More topics to come…

- NeTEx alternative modes
- SIRI minimum profile insights
    - Data validation methods and tools

# Knowledge base

www.data4pt-project.eu


ABOUT
DATA MODELS
CONSORTIUM
TECHNICAL SUPPORT
KNOWLEDGE BASE
NEWS & EVENTS
CONTACT US
GUIDELINES
FAQ
- General questions
- Technical questions
- NeTEx
- SIRI
- Transmodel
- Opra
TRAINING MATERIAL
TOOLS

## Knowledge Database

### Guidelines on how to compare data standards and data formats

18/03/2021

The purpose of this paper is to describe how to formalise establishing comparisons between data models that contain at least some overlapping concepts. The concepts of an Entity Mapping and a Mapping Table are introduced. This paper is based on previous studies, in particular on "INSPIRE-MMTIS: overlap in standards related to the Delegated Regulation (EU) 2017/1926" (EU/JRC, 2019), on the experience presented in "Joint Working Group on the Harmonization of Parking related Information Standards" (2020) and on the comparison of the GTFS with Transmodel/NeTEx.

Read the report here.

### NeTEx European Passenger Information Profile (EPIP). The technical artefacts.

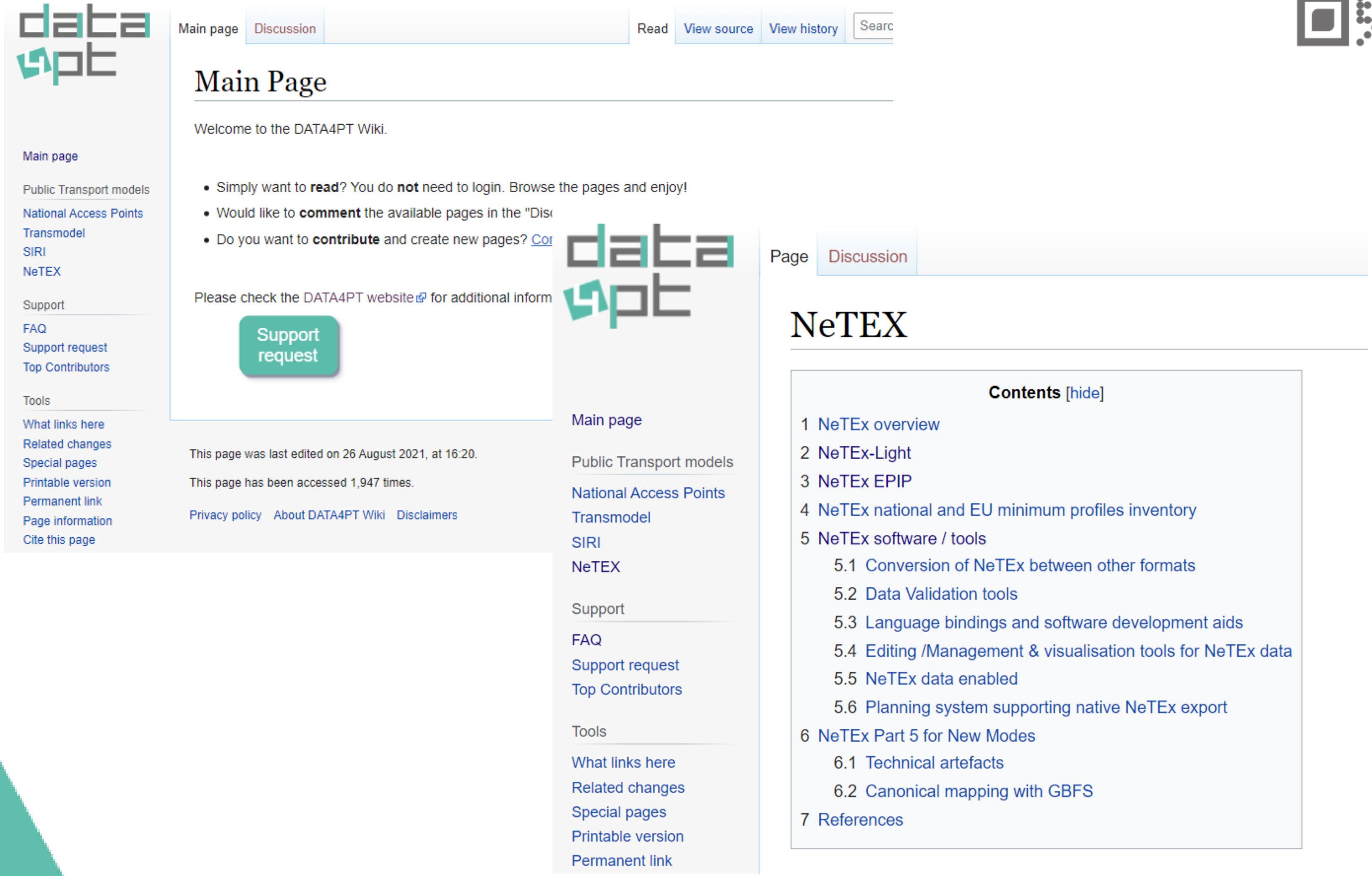
29/01/2021

Ideally all member states will provide NeTEx files according to the European Passenger Information Profile (EPIP) on their respective National Access Point. Data4PT provides some artefacts to simplify producing and quality assure such information. These artefacts can be used as basis for the specification on national profiles.
A graphic and interactive technical presentation of the adapted schema is available along with EPIP-adapted version of the full NeTEx XML schema and a relevant example.

Follow the link.

# Technical Database

WIKI: data4pt.org



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Related changes
Special pages
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Page information
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Support request

## Main Page

Welcome to the DATA4PT Wiki.

- Simply want to **read**? You do **not** need to login. Browse the pages and enjoy!
- Would like to **comment** the available pages in the "Dis
- Do you want to **contribute** and create new pages? Cor

Please check the DATA4PT website for additional inform

This page was last edited on 26 August 2021, at 16:20.

This page has been accessed 1,947 times.

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## NeTEX

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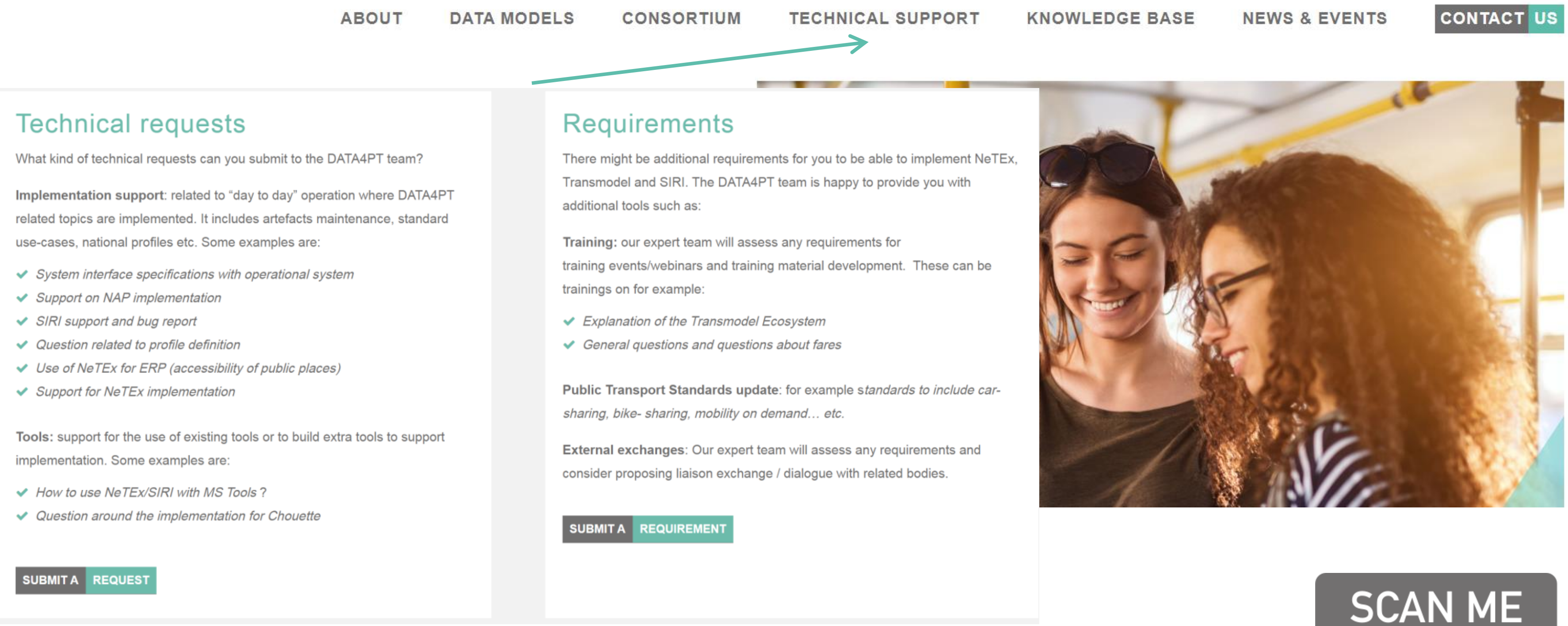
1 NeTEx overview
2 NeTEx-Light
3 NeTEx EPIP
4 NeTEx national and EU minimum profiles inventory
5 NeTEx software / tools
  5.1 Conversion of NeTEx between other formats
  5.2 Data Validation tools
  5.3 Language bindings and software development aids
  5.4 Editing /Management & visualisation tools for NeTEx data
  5.5 NeTEx data enabled
  5.6 Planning system supporting native NeTEx export
6 NeTEx Part 5 for New Modes
  6.1 Technical artefacts
  6.2 Canonical mapping with GBFS
7 References

# Customised technical support



## Technical requests

What kind of technical requests can you submit to the DATA4PT team?

**Implementation support**: related to "day to day" operation where DATA4PT related topics are implemented. It includes artefacts maintenance, standard use-cases, national profiles etc. Some examples are:

- ✓ *System interface specifications with operational system*
- ✓ *Support on NAP implementation*
- ✓ *SIRI support and bug report*
- ✓ *Question related to profile definition*
- ✓ *Use of NeTEx for ERP (accessibility of public places)*
- ✓ *Support for NeTEx implementation*

**Tools:** support for the use of existing tools or to build extra tools to support implementation. Some examples are:

- ✓ *How to use NeTEx/SIRI with MS Tools ?*
- ✓ *Question around the implementation for Chouette*

## Requirements

There might be additional requirements for you to be able to implement NeTEx, Transmodel and SIRI. The DATA4PT team is happy to provide you with additional tools such as:

**Training:** our expert team will assess any requirements for training events/webinars and training material development. These can be trainings on for example:

- ✓ *Explanation of the Transmodel Ecosystem*
- ✓ *General questions and questions about fares*

**Public Transport Standards update**: for example *standards to include car-sharing, bike- sharing, mobility on demand… etc.*

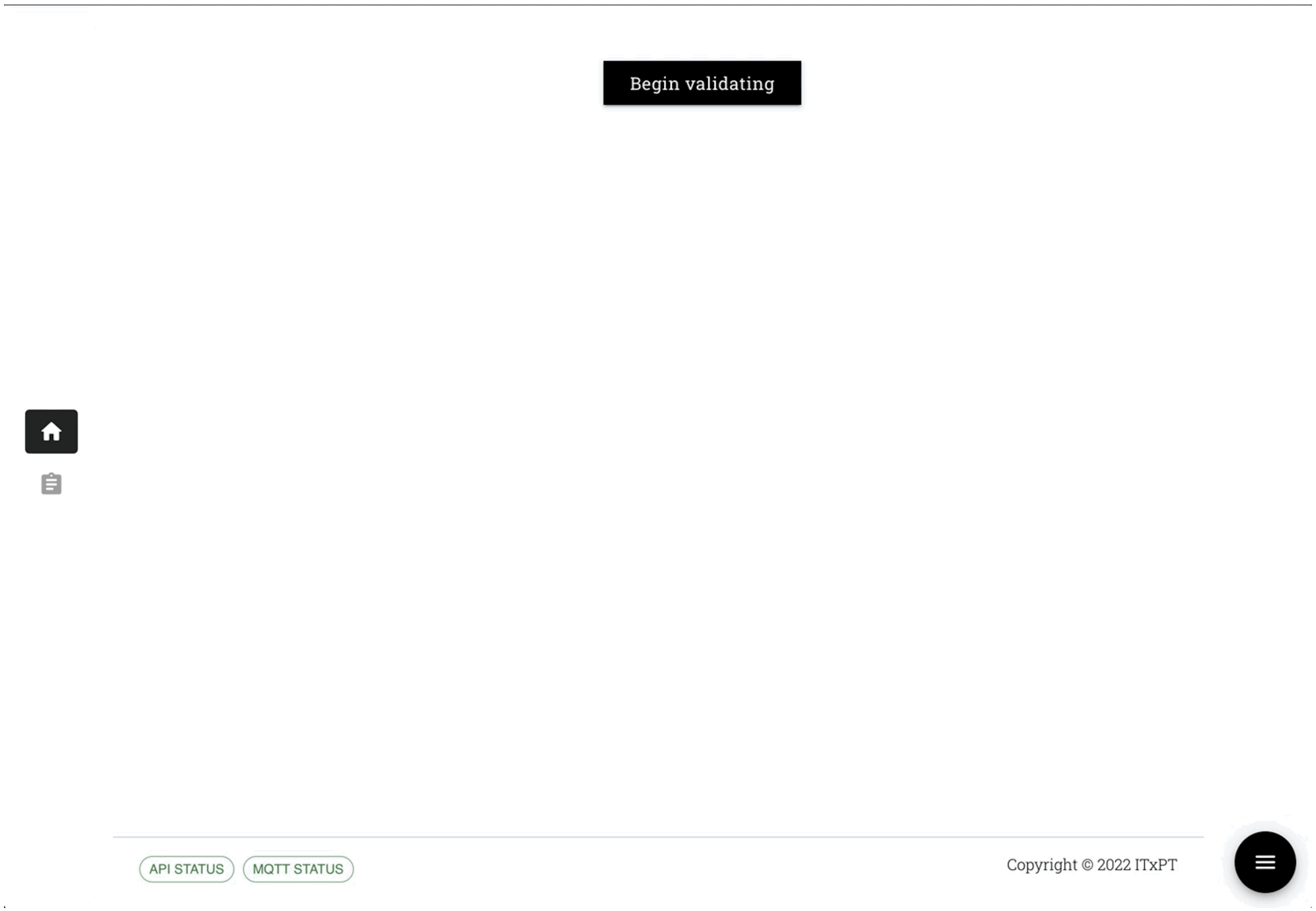
**External exchanges**: Our expert team will assess any requirements and consider proposing liaison exchange / dialogue with related bodies.

WEBSITE: data4pt-project.eu

SCAN ME

# Validation tools- NeTEx files

The online web interface in WIKI: data4pt.org

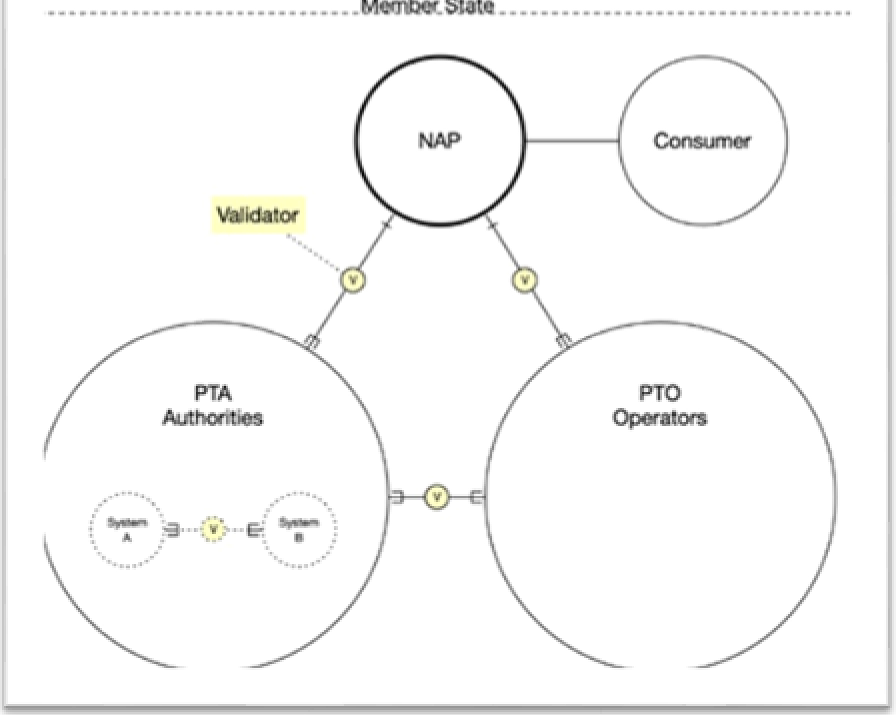

Begin validating
API STATUS
MQTT STATUS

Copyright © 2022 ITxPT

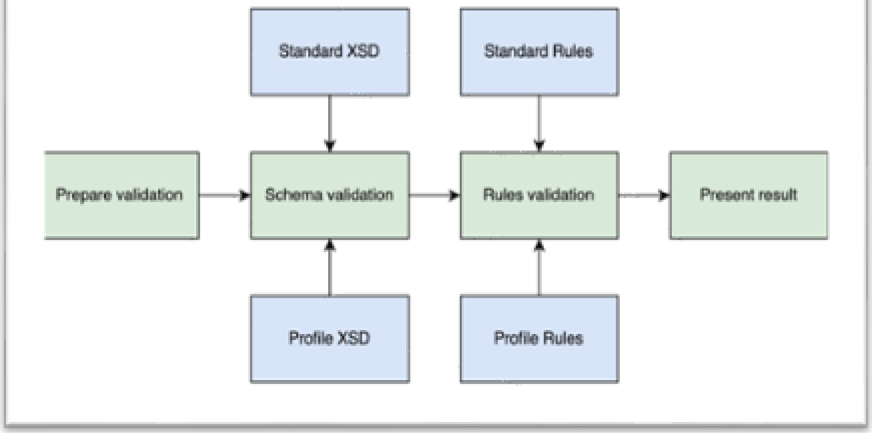
In GitHub: Soon with the full set of tools files, codes and the web interface to run locally

# Validation tools

Use cases


Member State
NAP
Consumer
Validator
V
PTA
Authorities
PTO
Operators
System
A
System
B

Architecture


Standard XSD
Standard Rules
Prepare validation
Schema validation
Rules validation
Present result
Profile XSD
Profile Rules

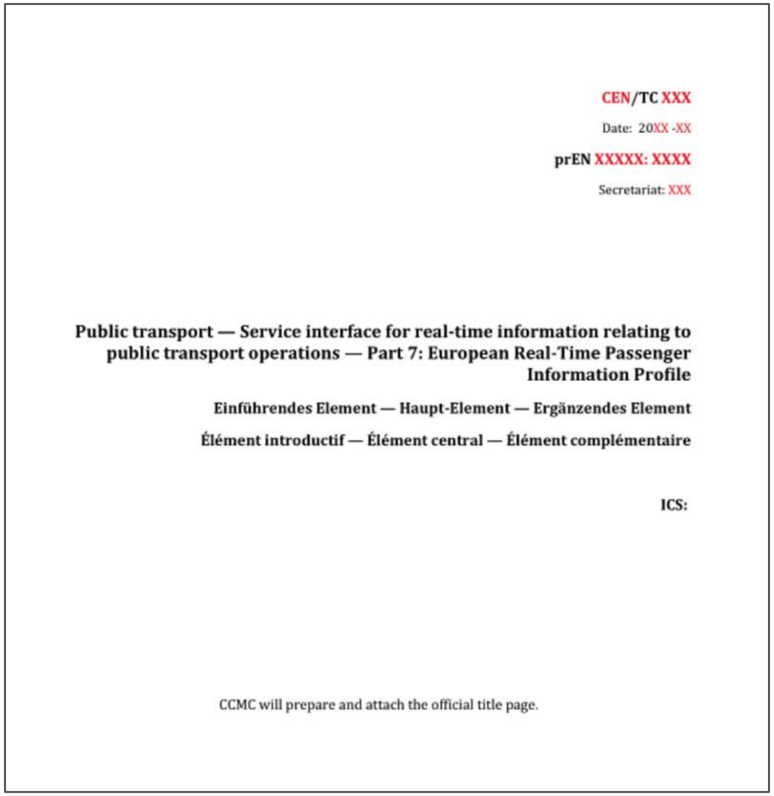
**Shared**

**Open source**

**Configurable**

# EU minimum profiles

*SIRI EU Real-Time Passenger Information Profile*



CEN/TC XXX

Date: 20XX -XX

prEN XXXXX: XXXX

Secretariat: XXX

**Public transport — Service interface for real-time information relating to public transport operations — Part 7: European Real-Time Passenger Information Profile**

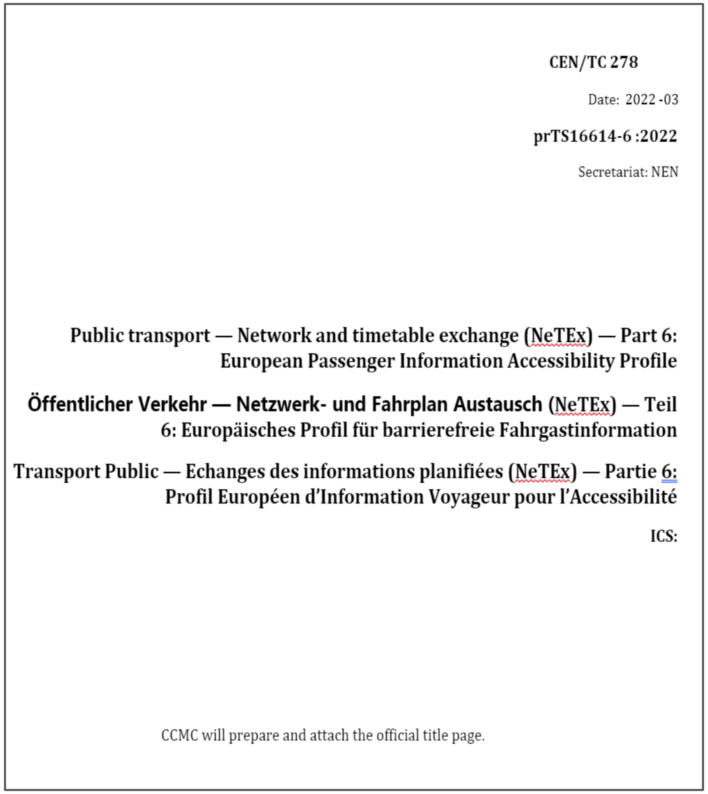
**Einführendes Element — Haupt-Element — Ergänzendes Element**

**Élément introductif — Élément central — Élément complémentaire**

**ICS:**

CCMC will prepare and attach the official title page.

*NeTEx EU Passenger Information Accessibility Profile*



CEN/TC 278

Date: 2022 -03

prTS16614-6 :2022

Secretariat: NEN

**Public transport — Network and timetable exchange (NeTEx) — Part 6: European Passenger Information Accessibility Profile**

**Öffentlicher Verkehr — Netzwerk- und Fahrplan Austausch (NeTEx) — Teil 6: Europäisches Profil für barrierefreie Fahrgastinformation**

**Transport Public — Echanges des informations planifiées (NeTEx) — Partie 6: Profil Européen d'Information Voyageur pour l'Accessibilité**

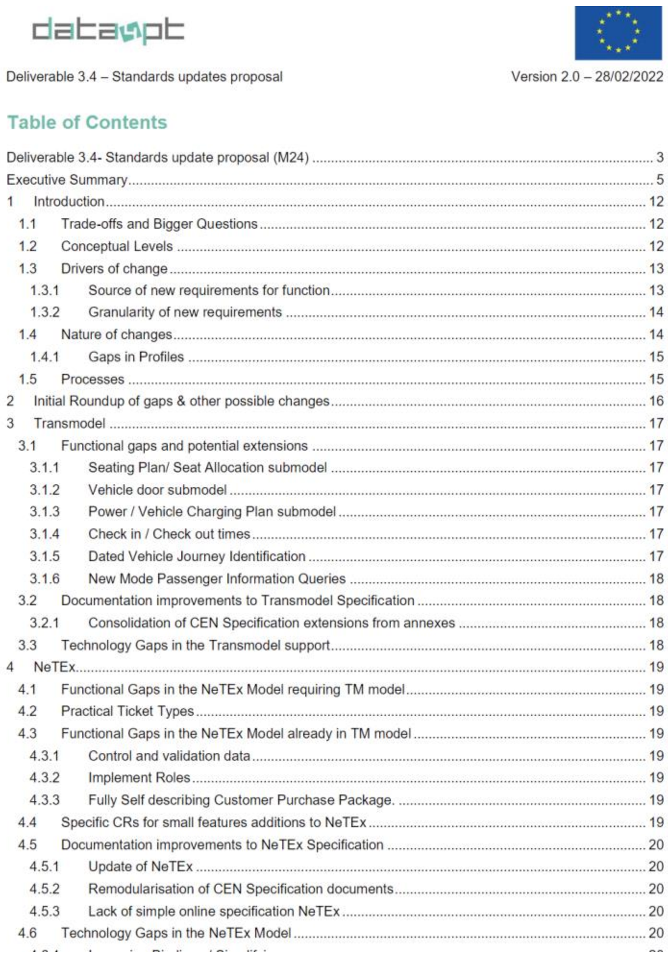
**ICS:**

CCMC will prepare and attach the official title page.

# Transmodel family standards update proposal

**Deliverable D3.4**

**Standards updates proposal**



Deliverable 3.4 – Standards updates proposal

Version 2.0 – 28/02/2022

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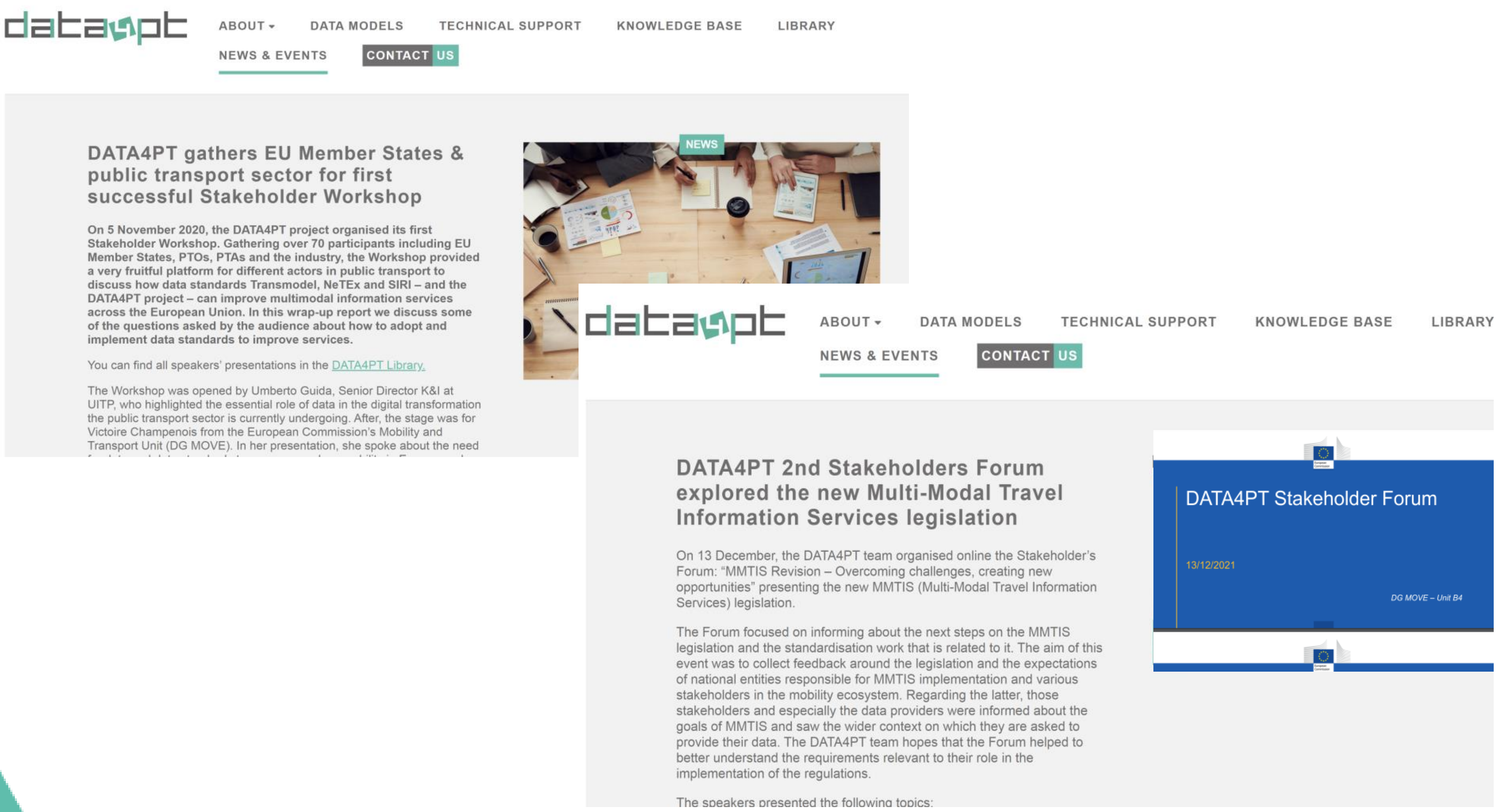
# Stakeholders' forum



### DATA4PT gathers EU Member States & public transport sector for first successful Stakeholder Workshop

**On 5 November 2020, the DATA4PT project organised its first Stakeholder Workshop. Gathering over 70 participants including EU Member States, PTOs, PTAs and the industry, the Workshop provided a very fruitful platform for different actors in public transport to discuss how data standards Transmodel, NeTEx and SIRI – and the DATA4PT project – can improve multimodal information services across the European Union. In this wrap-up report we discuss some of the questions asked by the audience about how to adopt and implement data standards to improve services.**

You can find all speakers' presentations in the DATA4PT Library.

The Workshop was opened by Umberto Guida, Senior Director K&I at UITP, who highlighted the essential role of data in the digital transformation the public transport sector is currently undergoing. After, the stage was for Victoire Champenois from the European Commission's Mobility and Transport Unit (DG MOVE). In her presentation, she spoke about the need

### DATA4PT 2nd Stakeholders Forum explored the new Multi-Modal Travel Information Services legislation

On 13 December, the DATA4PT team organised online the Stakeholder's Forum: "MMTIS Revision – Overcoming challenges, creating new opportunities" presenting the new MMTIS (Multi-Modal Travel Information Services) legislation.

The Forum focused on informing about the next steps on the MMTIS legislation and the standardisation work that is related to it. The aim of this event was to collect feedback around the legislation and the expectations of national entities responsible for MMTIS implementation and various stakeholders in the mobility ecosystem. Regarding the latter, those stakeholders and especially the data providers were informed about the goals of MMTIS and saw the wider context on which they are asked to provide their data. The DATA4PT team hopes that the Forum helped to better understand the requirements relevant to their role in the implementation of the regulations.

The speakers presented the following topics:

DATA4PT Stakeholder Forum

13/12/2021

DG MOVE – Unit B4

## 3rd Stakeholders Forum coming soon…

# Outcomes

- ✓ PT Operators, NAPs nominated bodies & other relevant stakeholders confident in creating and sharing standardised data

Road to
optimisation

- ✓ Optimisation of data flow from data producers to consumers

FUNCTIONING

- ✓ Accessible and useful NAPs with quality data across EU

- ✓ Post project sustainable support

# Thank you for your attention!

Everything is easier now! Thanks Data4PT!
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data4pt-project

**https://data4pt-project.eu/**

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