Public Transport
Information Coordination

EU Standards Development

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Operating raw data and statistics exchange Project

In the Public Transport sector, particularly for Public Transport Operators and Public Transport Authorities , the necessity to develop a data strategy has been identified, based on the cost and value, and focusing on the strategic benefits of data. It is crucial that mobility stakeholders are not only able to compete against potential new market entrants, but also need a suitable environment to develop new business models and services. Public transport is becoming a data-enabled or datadriven business and has to answer different local conditions.

This led to the need to standardize data analysis in Public Transport to understand formally how information can be created as an added value and how indicator calculation can facilitate to move from a qualitative analysis of the PT service towards a quantitative one.

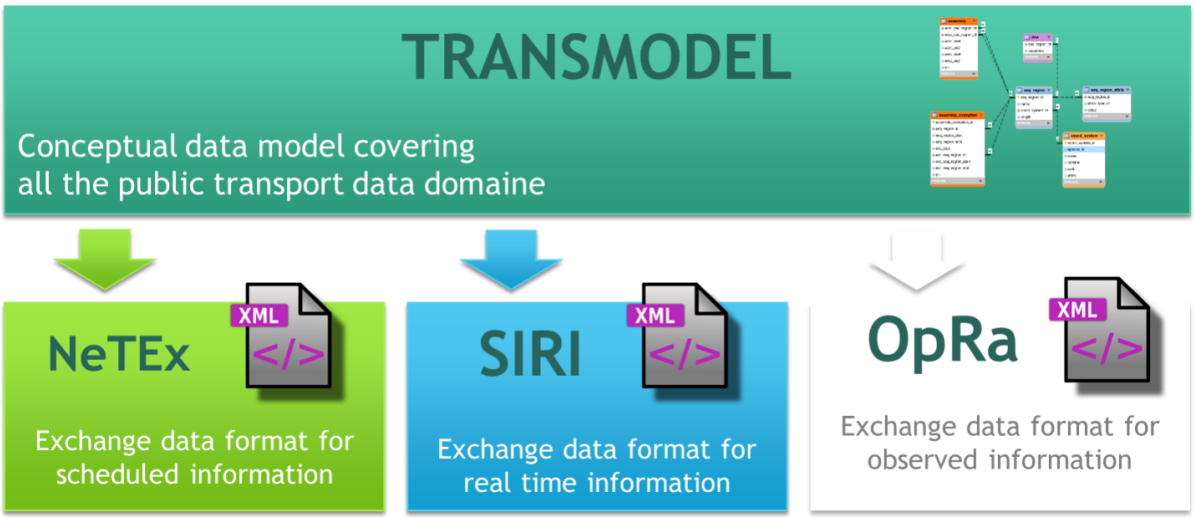
Currently, OpRa (Operating raw data and statistics exchange) defined a minimum set of Public Transport raw data needed as PT quantitative analysis enabling factor, documented in Technical Report CEN/TR 17370:2019 that describes the approach to be followed to achieve this goal and the results. The Pre-normative work documented in the TR covers the following topics:

1. Assessment.
2. Use Cases definition and classification.
3. Indicators definition.
4. Raw data identification.

This project proposal addresses:

- the development of a data exchange format, based on Transmodel (EN12896) and NeTEx (CEN/TS 16614), focused on a minimum set of Public Transport raw data needed for quantitative analysis in public transport services. For instance, the elaboration of standardized operational data (e.g., observed run times, passenger load) collected during service operations is an input for strategic planning (e.g., how and when to amend the schedules), tactical planning (e.g., when to undertake a certain control action), quality follow-up, etc.
- the development of a glossary for public transport aiming at assigning to each concept used in Public Transport, a unique “standard” term.

Data strategy and related KPI monitoring is one of the most important objectives for Public Transport Authorities in the frame of digitalisation development. The Transmodel-based data exchange standards like SIRI and NeTEx have paved the way to get access to harmonised operational data. OpRa aims to develop additional data exchange standards to complete such series offering a full data set to PTAs.



Raw data identification and description will be compliant with Transmodel (EN 12896), with particular emphasis on Data Dictionary description and Part 8 Management Information Statistics.

The elaboration of standardized operational data (e.g., observed run times, passenger load) collected during service operations is an input for:

- strategic planning (e.g., how and when to amend the schedules),
- tactical planning (e.g., when to undertake a certain control action),
- quality follow-up, etc.

Related EU standards (Transmodel, NeTEx, OJP) will be updated accordingly with new concepts.

OpRa will also develop a Public Transport unified glossary to harmonised terms and definitions from existing data dictionaries.

The project to create Opra is about to start with a group of experts having been procured by CEN. This work is expected to take between 12 and 18 months to achieve a published standard with a further year to update the other standards.

An initial UK workshop was help over the summer to collect some use cases to feed into the project and assist with validating the work.

On vehicle

Both ITxPT and VDV (in Germany) are working on requirements for operational data from vehicles. This includes data about performance, range, faults etc.

This will provide vehicle operational data in real time on vehicle and not in a manufacturer back office.

This work is progressing well and approval has been obtained to update the existing standards TS 13149 to reflect the work of ITxPT and VDV. This will take about 6 months to complete to the point where the formalisation process can start which will take at least an additional 6 months.

Open Journey Planner (OJP)

OJP is the Open Journey Planer for the exchange of trip planning information based on Transmodel V6 (EN12986) and using NeTEx and SIRI data to fulfil its objectives.

A project has started to an overhaul of OJP to modernize some aspects, harmonising it with recent developments in Transmodel, NeTEx and Siri.

- OJP will be updated to better align with the latest Transmodel version and NeTEx issues, where appropriate (e.g. New Modes)
- EPIAP (Accessibility) minimal profile will be used to verify, that the trip planning can make use of it.

Standards with Digital Artifacts

Some standards rely on content such as technical schema documents which are not part of the current formal standardisation process.

All the Transmodel based standards rely on XSD files for schemas, with they being managed through GitHub.

The use of services such as GitHub has come to the attention of CEN who are now developing a central repository for “digital artifacts” – the type of content that for WG3 is stored in GitHub and used openly by developers and software.

There is still significant concern that this will result in restrictions on access even if not an additional cost. This would change fundamentally the adoption of the standards. CEN state that the national bodies resist the continued open access because of the loss of revenue this would cause, the value of this has not been forthcoming to date.

This is an area that we will continue to watch closely as it has the potential to change the way that we need to work with standards significantly.