

Technical Tutorial: Network Timetable Exchange

What is NeTEx?

NeTEx (Network Timetable Exchange) is a **standard for exchanging planned or static transport information**, so it refers to any data known in advance about public transport services or offers from its network topology, schedules, and fares.

NeTEx
Network Timetable Exchange

Information exchange made simple

NeTEx is a **European standard** built on **Transmodel** and works in conjunction with other standards, such as SIRI. It uses the **XML file format** and it allows for the **representation of complex real-life transport structures** and **supports rigorous validation** through **XML schemas**. As a comprehensive data exchange format, it is designed to:



**Facilitate
information sharing
among stakeholders**



**Enable file uploads
on data portals**



**Allow direct file
exchanges between
systems**

Functional scope



Topology

Points of interest,
stations, paths,
lines, routes



Scheduling

Service calendar,
timetables,
connections



Operations

Organisations,
vehicles, modes of
operation



Fares

Structure and
products, sales
conditions, user
profiles



Accessibility

Both topology
and vehicles

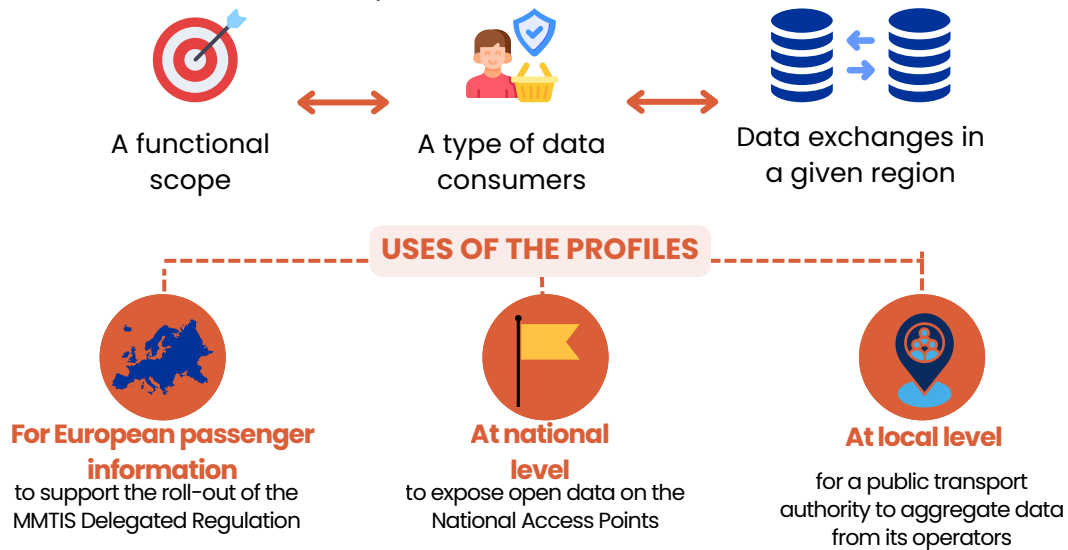
Use cases



**Detailed stops
registry shared
between operators**

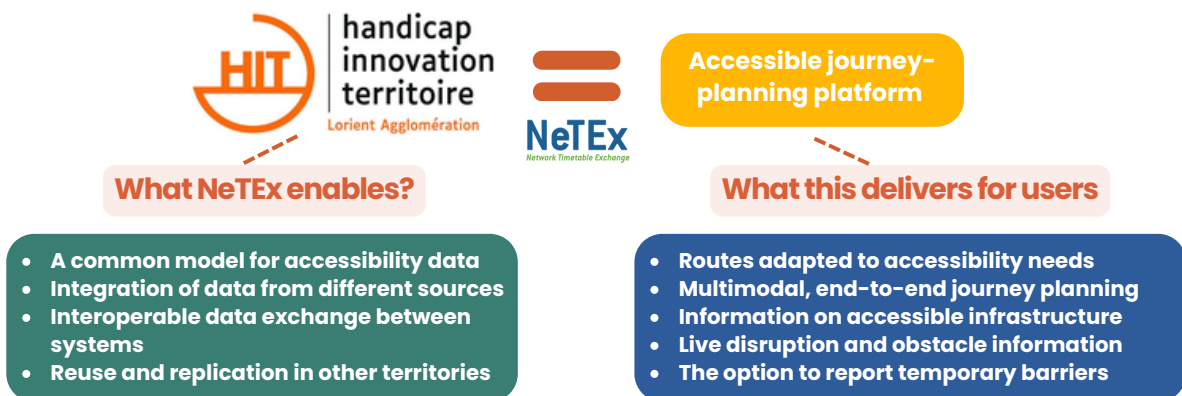
Making the most out of a profile

A **profile** is a **subset of NeTEx**, so a specific list of NeTEx elements relevant to:



A tool to support inclusive cities

Lorient Agglomération uses **NeTEx** to turn detailed information about sidewalks and crossings, stops, vehicles and public spaces into **standardised accessibility data**. By describing this information through a common European model, data from different sources can be combined, maintained, and reused by journey-planning and passenger-information services.



Resources

Learn more about NeTEx:

- ✦ **GitHub**: Technical artefacts, including XML Schema and examples
- ✦ **Accèslibre Mobilités**: Open-source software suite for urban planners
- ✦ **Nplan**: Open-source editor for transport planners
- ✦ **OpenTripPlanner** and **MOTIS**: Open-source trip planning solutions
- ✦ **French National Access Point**: Check the quality of a file or a feed



Discover the **POLIS Capacity Lab**

Plus, you can learn more about data standards and specifications in urban mobility through **full access to the POLIS Capacity Lab's activities and content**.

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