Native Nel Exin Norway Entur Lational Access Point

DATA4PT Stakeholder Workshop, 05.11.2020







Norwegian Organizational Structure



ENTUR

- Established in 2016
- Government owned company, non-profit
- Responsibility for:
 - Public Transport data and national journey planning
 - National ticketing system for all Public Transport
 - rail sector mandatory
 - other optional
 - Customer support rail sector
- Technical department ~ 150 employees/consultants



History



Nordic NeTEx Profile



- The NeTEx standard is comprehensive and opens for interpretation
- The Nordic NeTEx profile is simply a document that scops down to what data we actually need in Norway
 - Which frames
 - Fields and values
 - Describe explicitly how data should be interpreted when necessary
- The EU profile is the minimum requirements and is mostly covered in the Nordic profile

Documentation:

<u>https://enturas.atlassian.net/wiki/spaces/PUBLIC/pages/728891481/Nordic+NeTEx+Profil</u>
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ENTUR

The profile is intended to be a "living" document with continuous extensions/revisions for all backward compatible changes!



Data4PT expectations



Where and how to convert to rail?



ENTUR

Where and how to convert to rail?



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Tools

Workshops for implementing **national stop register** Best practice reuse open source services Build **NeTEx and SIRI validation** open source tools Start and facilitate open source **timetable database** development Best practice guiding



Open source: github.com/entur Developer portal: developer.entur.org Entur: entur.no NAP: transportportal.no Railway directorat: jernbanedirektoratet.no

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Where and how to convert to rail?

At UIC side

PRO	CONS
Railway operators / countries can benefit from NeTEx growth	Challenge the UIC thinking
UIC can get access to all modes	How many profiles or which profile to support
Possibility for UIC to grow	Cost for UIC
Open up the markets	Terminology new for railway
Open up the eco-system	Maturity - few complete implementation of NeTEx in railway
Cost for railway operators / countries	Persistence
Common terminology	



Experiences from Norway

Native NeTEx and SIRI for all modes of transport

PRO	CONS
Unified data with all modes	Took time and cost to get there
Eco system in common growth	Lock-in providers slows the process
Scalable systems are possible	
The toughest opponents, now see the benefits	
"Cherry-pick" providers	
High quality data and automatic validation	



Norwegian NAP: State of Play

- Delegated act still not implemented in Norwegian legislation (in progress)
 - Time table data, real time data and fare data for public transport are already mandated by Norwegian law regardless of the delegated act
 - In addition we have national guidelines for electronic ticketing
- Up and running in regard of Level 1
 - For real time data the data quality is still a work in progress
- Delayed for Level 2
 - Involving new modes has been delayed due to delay in legislative work
 - Fare data is in progress, though behind schedule. Will be finalized in the spring.
 - Challenge: Due to decentralized fare authority maintaining a central database is foreseen to be difficult
- Goal regardless of delegated act: A national journey planner with prices and ticketing







Why did we choose NeTEx?

- When analysing some of our use cases for journey planning we found GTFS too "lightweight"
 - StopPlace modeling
 - Support for flexible services
 - Support describing services/trip plans for people with disabilities
 - General level of details are more extensive in NeTEx
- Transmodel as a common reference and vocabulary
- NeTEx would also support internal dataflows within a PTA's organization
 - Avoiding multiple dataflows to different systems via different exchange formats
- Complying to the EU-regulations



