



Strategies for NAPs to maximize MMTIS data consumption

NAPCORE Mobility Data Days – Turin – 6 November 2024

Our programme for you

- Setting the scene – 15 min
- Let's work together – 60 min
- Wrap up & Conclusions – 15 min

Your hosts for the next 90 minutes



Brede Dammen
Entur
Norway



David Ariño Montoya
ITxPT
Belgium



Jorge Gonzalez
French Ministry
France



Maxime Siret
French NAP
France



Tu-Tho Thai
AFNOR, GT7 / enRoute
France



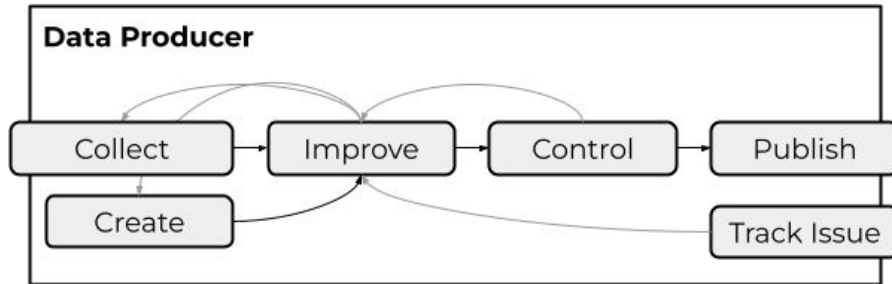
Ferdinand Burgersdijk
fairsfair.org
Netherlands

Setting the scene

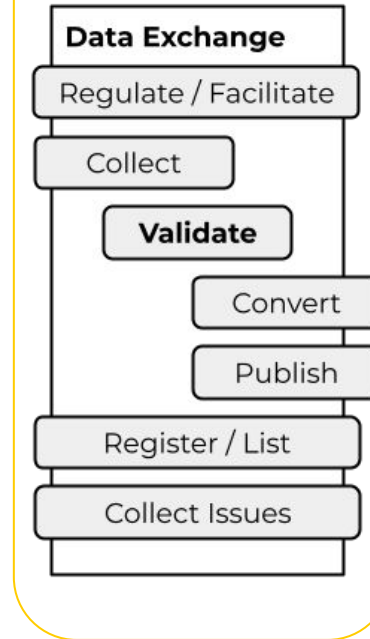
Simplified data flow & roles



**Public Transport Operators and
Public Transport Agencies**

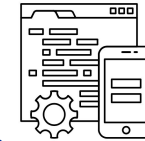


NAPs

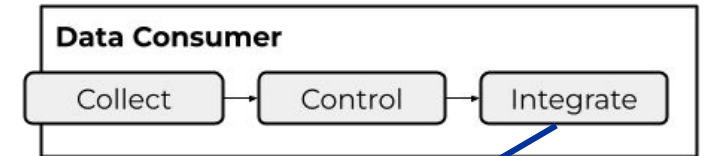


Your role as NAP

But we need to focus on them



**Journey planners, ticketing systems
& Other data consumers**



They need harmonised data for

- Routing systems
- Passengers information, incl. Fares information
- Booking systems
- Etc.

NAPs as facilitators of Data Exchange...

- **Define a common policy for**
 - Data standards / formats to use
 - Profiles to respect
 - Specific identifiers (e.g., national stop place registry)
- **Set processes for**
 - Publishing data
 - Consuming data
- **Are the guarantor of**
 - Compliance to local / national regulations
 - A level-playing field

... but how?

- Tooling & Standardisation
 - Jorge on how tooling was incorporated in the French NAP
 - Tu-Tho on how French profiles of CEN standards are built
 - David on standards harmonisation within NAPCORE
- Strategies to improve data accessibility and re-use
 - Brede on consuming your own data
 - Maxime on building better relationships with data consumers
- Best practices sharing ⇒ it starts now!

Let's work together

Workshop organisation

- 4 themes = 4 corners of the room
 - Standardisation, led by David
 - Tooling, led by Jorge
 - Building relationships with data consumers, led by Maxime
 - Strategies for easy data usage, led by Brede
- 2 time-keepers & standard experts at your disposal: Ferdinand & Tu-Tho

Workshop flow

- 10 minutes: finish the sentence « My problem with **xxx** is... »
 - Where **xxx** is the theme of your corner and ... is for you to finish the sentence
 - Write the end of your sentence on sticky notes
 - Put them all on the flip chart / table
- 10 minutes: find the immediate problem to solve
 - Regroup your problems, when similar
 - Discuss with your peers which one you think is the most important to solve
 - Select the “winning problem”

Workshop flow

- 15 minutes: exploring solutions – brainstorm
 - Write on sticky notes all the solutions you can think of to solve your problem
 - There is no bad solution! And you can be creative and push for ideas that do not exist!
 - Put them all on flipchart
- 15 minutes: exploring solutions – what exists
 - Regroup your solutions, when similar
 - Explore the solutions that already exists by sharing your experience
 - Identify the solutions that could be applied in different Member States (e.g., *all agreeing on a maximum profile for EU standards*)

Workshop flow

- 10 minutes: let's dream together the NAPCORE MMTIS roadmap
 - For each corner, share
 - The immediate problem you decided to solve
 - The solutions you selected that could be replicated in different Member States

Wrap up & Conclusions

Learnings from the hosts



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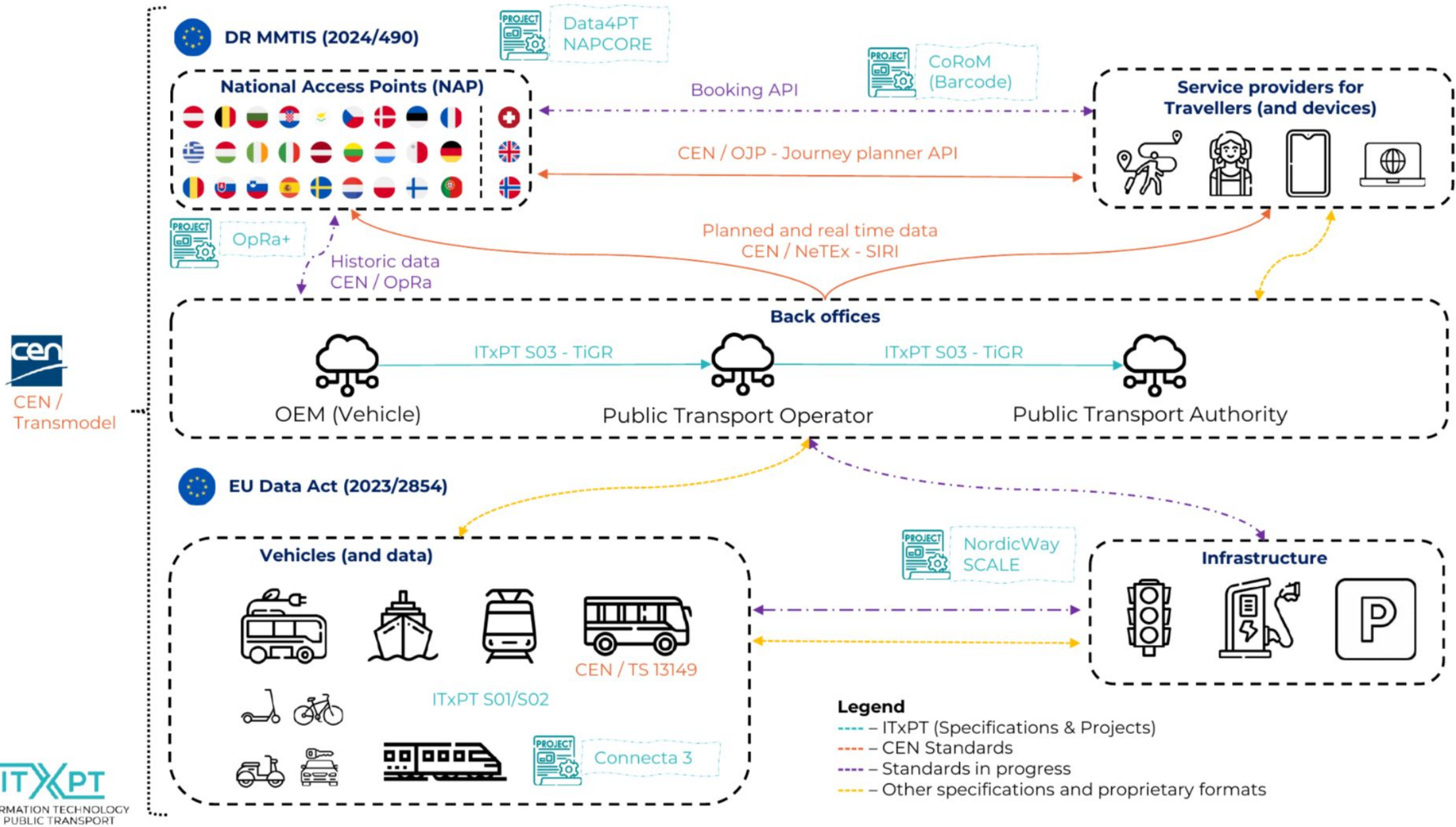


Tu-Tho Thai
AFNOR, GT7 / enRoute
France



Ferdinand Burgersdijk
fairsfair.org
Netherlands

LANDSCAPE OF MULTIMODAL MOBILITY DATA INTERFACES



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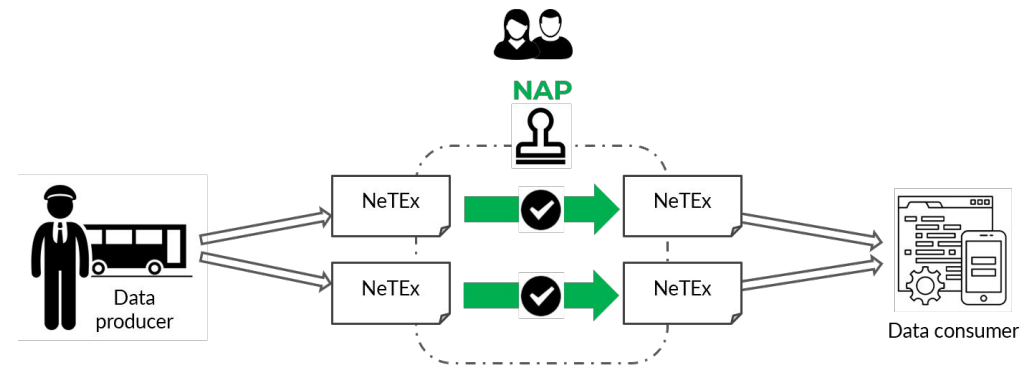


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France



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fairsfair.org
Netherlands

Giving back to you!



What Chouette Valid **can** do

- Ensure Compliance with a standard / data format / file format
- Ensure Compliance with naming conventions, national/local rules, etc.
- Automated tests on some data content (e.g., mandatory attributes are filled in)
- Flag when a dataset has not been updated for a while
- Easily get integrated in data flow

What Chouette Valid **cannot** do

- Ensure Compliance with the reality (e.g., is the bus stop still at the same location?)
- Enrich data with information it does not have (e.g., adding accessibility details for a certain stop)
- Complex test on data content (e.g., travel time between 2 stops)

But Chouette SaaS can!

Thank you!

If you want to continue the discussion, drop us a line:

- Brede Dammen - brede.dammen@entur.org
- David Ariño Montoya - david.arinomontoya@itxpt.org
- Ferdinand Burgersdijk - ferdinand@fairsfair.org
- Jorge Gonzalez - jorge.gonzalez@developpement-durable.gouv.fr
- Maxime Siret - maxime.siret@developpement-durable.gouv.fr
- Tu-Tho Thai - tutho@ttandj.com & tutho.thai@enroute.mobi

Extracts from the workshop

Theme: tooling & software

Standards & Validation	Requirements definition	Tools ideation
Data standards	Different Requirements	Kinds of tools
Data standards validation	Different tools	Production
Consistency of data	Training reference experts in standards tools	Do we need (data) aggregators?
Data content validation	To define requirements	Specification
Advise producers / users on data issues		Share tools
		Keep tools up to date
		Good Documentation
Harmonisation	Funding	Lets share tools
Consistency	Funding	Centralize SIRI data
Harmonization	Funding to develop / provide tool converter	Open source tool libraries for Transmodel tools "GITHUB"
Commonality (EPIP)	Maintenance	Create Harmonized aggregated data sets, simplifying use of data
Bridges between modal specifications	Keep tools up to date	Tools for data providers to validate, convert, produce Data
		Need more common API implementation using the NAP data, like travel planners. This will encourage data suppliers to deliver (good) data
Open problems / questions	Dissemination / Documentation	More use of data
Problems	Dissemination	
Data = Reality	Educate stakeholders	
Legalization	Good documentation	

Theme: strategies for easy data usage

Strategies For Easy Data Usage, #1 All Your Problems		My Problem With Getting The Data		Solutions	
Make sure every dataset has supporting documentation or a data dictionary for quick reference	Other data in a range of formats(csv, Json, excel) or users can chose what works best for their tools	Data holder lacks / is missing Motivation to provide data	Lack of will and dedicated employees	Awareness	Share experience
Proposal of new use cases (besides xxxx ticketing)	Different websites and access to the data	Data owner motivation to share	Absence of digital data in proper format	Best Practices	Produce it by ourselves + PTOs
Difficulties in collecting data, analyze and make best use of	Incomplete data sets and inconsistencies	Know how to (legacy, operational) for data sharing	Small transport operators who are aware of why and how (esp. technically) publish the data	Provide awareness	Same unique profile
Emphasize the importance of understanding user needs at the outlet. Different users will have varying requirements for accessing and using data	My problem of easy data usage is the availability of several different (but often similar) data sets in inconsistent levels of quality (with respect to the content)	Regulation for collection data and organizations in the regions so safe standards send collect	Make PTO's understand that producing and sharing good quality data is important for them	Nominate aggregators who can take care of integrating / publishing small provider's data and ensure keeping quality standards	Holistic frame for the (far) future - Practical actions for the next 2 years (for each mode) (EPIP) road borne, rail borne, air borne, water borne
Digitation , low number of data from PTO / PTA	Missus use-case of why to share data	Lack of API's for dynamic, aggregated data	One really need to know what one is trying to find	Share the benefits across the NAP's and countries	Provide "cook books" with info + guidelines how to share data
Validating Data ownership	Lack of national strategy	Visibility of NAP's Data quality	Minimum level for data quality - Incentives to promote higher levels	Provide the tools and the process	Policy and regulation
		Is it easy to share	Lack of PTO will	Provide tools	Relevant actors in relevant platforms
			Lack of knowledge	Knowledge sharing	Support for the providers
			Lack Knowledge	Training	Harmonization of data standard use
				Sharing Knowledge	
I will Share, How Can I Do That		Exists			
Commonalities	Bridges between silo approaches	Harmonizing Standards	Learning		
References (commonly agreed EPIP)	road borne	The Data	Statistics + existing know how		
Take up	rail borne	Entur Open Source Tools	Start collaborating		
Quality	air borne	Open source, low cost implementations	Provide tools and provide valid use of the data		
	waterborne				

Theme: relationship with data consumer

Feedback and Know Who They Are	Provide Ticketing	Operation Documentation in EU	Data Quality Standards
Who are the data consumers?	Offer plug & play integrations + and documentation openly	Good documentation + dissemination of concepts	Need AVIS making services, not just data available for consumers (preferably for free when possible)
Provide strong use cases of how data consumers are using the data values	Consumers also need to know how to make commercial connections, booking + payment	Co-operation to identify data consumer needs	Remove barriers to consuming data. Integrated datasets, Siri, NETTEX + GTFS/RT, easy to use APIs
Props / Examples	Booking and ticketing vs trip planning		Metadata
Not easy to reach them			No consumers of NETTEX or SIRI data
Share public use cases and knowledge		Bridges between users	Provide info on data quality to manage expectations. Completeness, accuracy, freshness, richness
Hold discovery sessions with consumers to understand what they want		Bridges between solo approach	
My problem with relationships, with data consumers is we would like to have MORE consumers potentially MMTIS	Incentive to share back	Which services	How to provide the data in the right format for the respective use. Eg information on road block
Segment data consumers, understand different needs, provide appropriate interfaces	Build with them at the beginning	Commonalities	To make sure data is of quality and adjusted
Getting their feedback		Harmonization Take up	
Feedback loop, levels of data quality provision by other stakeholders			
Provide ability for data consumers to feedback on data issues			
Feedback loop data consumers providers			

Theme: standardisation

CEN Organization	Scope and Profiles	My problem is...	Existing Tools - Training PTA's PTO's + Best Practices	Data Completeness Quality
Open free standards	My problem is poor profiles		NAPCORE Academy funding	Tools - Validation
Revision time for standards (3 years) not suitable for agile development, need faster process	My problem with standards is the missing European with appendix	My problem with standardization is definitions (uniform), different standards available, the connection / combining of data-sets with different standards	My problem with standardization is that it is difficult to support PTO's to implement standards and convert to financing	Yes / no flags for accessibility is not enough. Need details like ramp elevation etc. so users can decide for themselves
Community development model for Transmodel CEN= Slow Standard mandated by law should be available without cost (cause move from ISO/CEN towards industry specs in the long run) also applies to revision time	My problem with profiles is to "wide" Bridges between silo approaches, road borne, rail borne, air borne, water borne	commonalities, references commonly agreed (EPIP), harmonization, take up, quality My problem with standardization is : where and how coordination and change, how to divide the "cake" between supplier and user of data (who has made the largest adaptations)	Lack of knowledge from PTO's and PTA's on standards Problems with standardization - difficult to implement (for example Datex II or others) users could be afraid to implement their need	Standards for cycling are not harmonized across Europe Standardization but pay attention to data quality
			My problem is missing good guides how to use it in a specification	National regulation
			My problem with standardization are, P.T - GTFS and conversion to Netex not a lot known, we hear the use of Sources for best practices for implementation + real data, solid documentation	Feedback loop (RTTI)
				Cyclist needs specific standards
Interpretation Explanations	Stakeholder communities	Governance	Example	
Standards need to narrow the room for interpretation. Today: Need extra work to integrate data-sets often it can't be done properly	Share best practices forum My problem with standards is missing user groups and open source	My problem with standards is too many standards, governance, who is in charge? Coordination, updates close distribution of tasks and roles bt CEN & NAPCORE	Harmonization Operators (bottom level)	
	The end of PSA Data4PT			