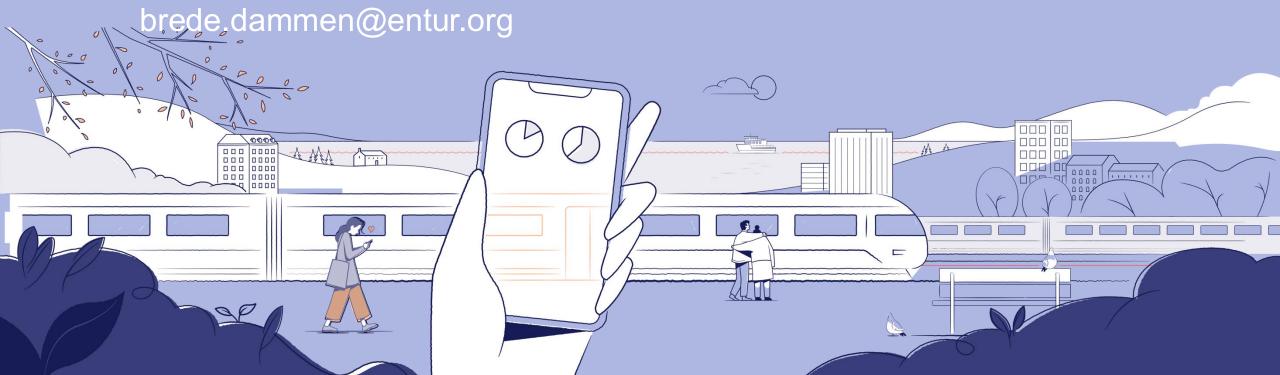
### Connecting Nordic Public Transport

Using Data Standards to Benefit Passengers

Brede Dammen, Head of national trip planner and mobility, Entur

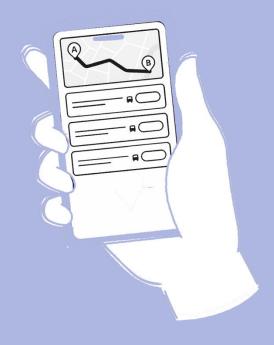


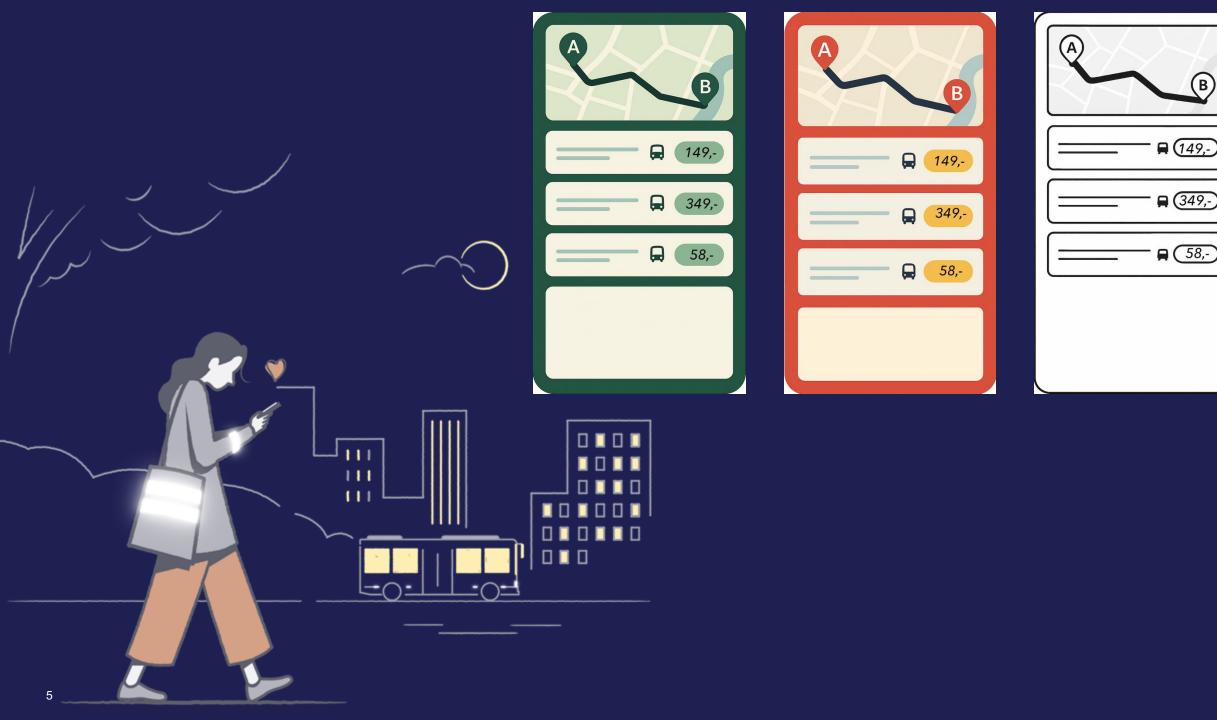
# Data standards make public transport great!



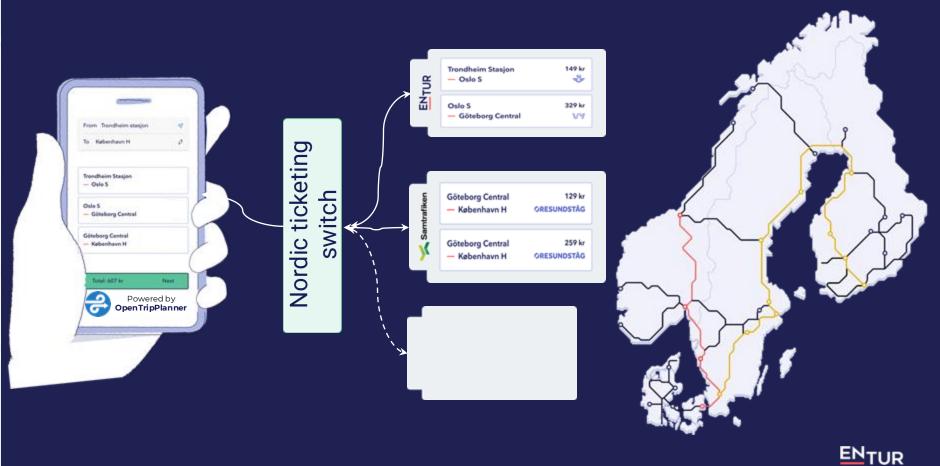




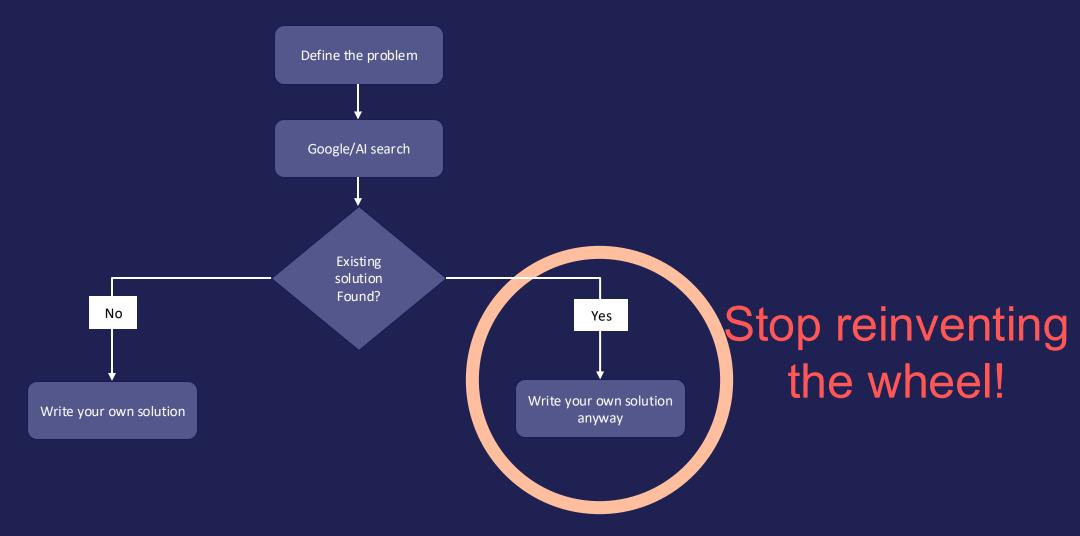




# Crossing regions ≈ Crossing countries



#### Human Problem Solving





#### Achievements of the von der Leyen Commission

#### The European Green Deal

From day one, the Commission has been fully committed to transforming the EU into a clean, From day one, the Commission has been rully committed to **transforming the EU into a clean**, **resource-efficient**, **and competitive economy**, in line with the goals of the Paris Agreement.

The European Graph Deal was declared as the EU goals and the part of the European Graph Deal was declared as the EU goals and the EU goals and the EU goals are the EU goals and the EU goals and the EU goals are the EU goals are the EU goals and the EU goals are the EU goals resource-encient, and competitive economy, in the with the goals of the Pans Agreement.

The European Green Deal was designed as the EU's compass to achieve those goals. It aims to the curopean ureen Deal was designed as the EUS compass to achieve those goals. It aims to ensure zero emissions by 2050, making Europe the first climate-neutral continent in the world.

Social, economic, and geopolitical developments in the last years have confirmed that **this course** ocial, economic, and geopolitical developments in the last years have confirmed that **this cours** of action is critical. The transition to clean energies and technologies has become, even more of action is critical. The transition to clean energies and technologies has become, even more than before, an incentive for economic growth and innovation. Furthermore, Russia's aggression than before, an incentive for economic growth and innovation, Furthermore, Russias aggression against Ukraine has underlined our need to reduce dependencies from unreliable partners and against uxraine has underlined our need to **reduce dependencies from unreliable partners and Deposit our own energy autonomy** thanks to renewables, energy efficiency and other Green Deal

In 2021 the EU adopted its first European Climate Law, it set in stone the Europe's goals to In 2021 the EU adopted its first European Climate Law. It set in stone the Europe's goals to be come climate—neutral by 2050, as well as a target of 55% less emissions by 2050, in a comparison to 1000. As consistent window the Climate Law. pecome cumate-neutral by 2030, as well as a target of 55% less emissions by 2030, in companion to 1990. As required under the Climate Law, the Commission also recommended, in companion of 1990. companson to L99U, As required under the Llimate Law, the Lommission also recommended, in Journary 2024, an additional intermediate target of 90% less emissions by 2040, confirming our February 2024.

But the European Green Deal is about more than setting targets. It is also about creating the But the European Green Deal is about more than setting targets, it is also about creating the right enabling environment. This is first and foremost about **putting people at the core of the** right enabling environment. This is first and foremost about putting people at the core of time transition. That's why we have been ensuring that the clean transition is just and fair, by transition. Inats why we have been ensuring that the clean transition is just and tail. by supporting both those that are more vulnerable in the clean transition and most affected by the

effects of climate change.

With the **Just Transition Fund**, we have supported workers and regions to develop new skills and With the **Just Transition Fund**, we have supported workers and regions to develop new skills and thrive in the green economy. Likewise, the **Social Climate Fund**, partly funded via the EU ETS, will thrive in the green economy, Likewise, the **Social Cumate Fund**, partly funded via the EU E13, will provide Member States with dedicated funding to support vulnerable groups thanks to investments in energy efficiency, renovation of buildings, and clean heating, amongst others.

Meanwhile, instruments such as the EU Solidarity Fund and the EU Civil Protection Mechanism Meanwrite, instruments such as the EU Solidarity Fund and the EU LIVIL Protection Mechanism
have brought support where it has been needed most, including farming communities, after climaterelated disasters such as wildfires, storms, and floods.

Secondly, in order to achieve our climate-neutrality goal, we also need an **energy system that is**. Decoracy, in order to achieve our cumate-neutrativy goal, we also need an **ginery system that is Leaner. more efficient and no longer dependent on fossil fuels.** For that, we need to ensure that capital flows in right direction, and that people and businesses can access the financing they need to carry out green investments.

## European Commssions Green Deal loves standarss



Cross-border train travel is still too difficult for many citizens. People should be able to use open booking systems to purchase trans-European journeys with several providers, without losing their right to reimbursement or compensatory travel.

To this end we will propose [legislation] to ensure that Europeans can buy one single ticket on one single platform and get passengers' rights for their whole trip.

Ursula von der Leyen – European Commission President



### MMTIS:

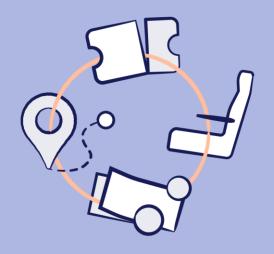
Multi

Modal

Travel

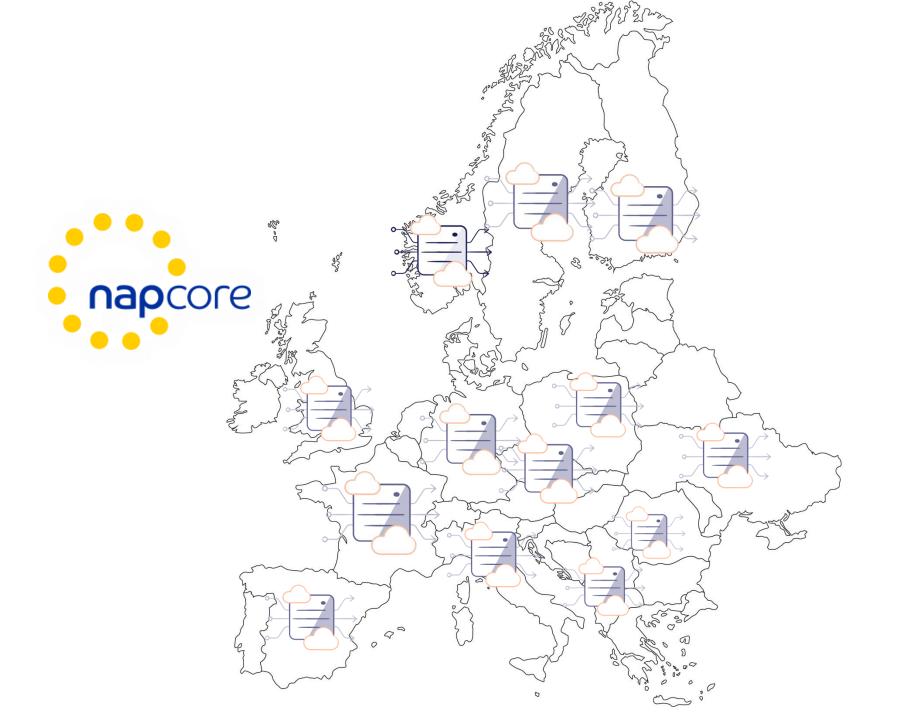
Information

Service



All mobilities must share!
All data must be shared!
Data must be shared to NAP!

# **National** Access Point

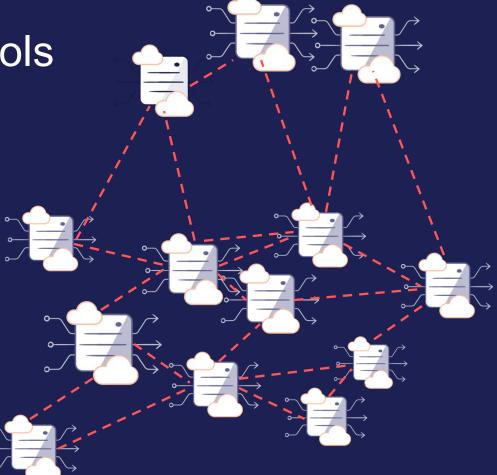




1. Data Quality

2. Open Source Tools

3. Standardization



### CEN STANDARDS FRAMEWORK

Technical data exchange formats for public transport data exchange

#### **NeTEx**

(exchange format static data – timetables - fares)

#### **SIRI**

(exchange format dynamic data - real time data)

#### OpRa+

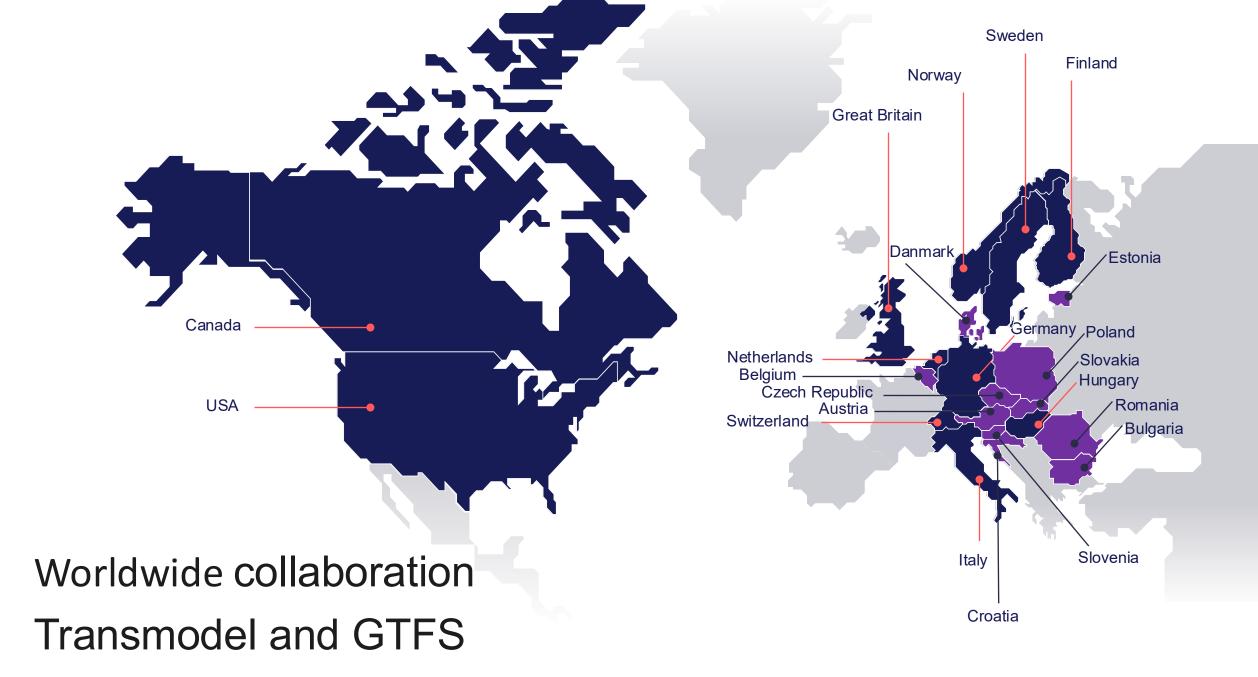
(historical data)

#### **Transmodel**

(Conceptual data model)

Reference model for information in the public transport sector



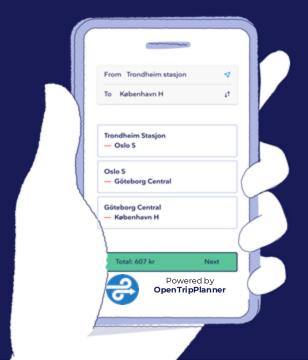




## EAT YOUR OWN DATA – BEFORE OTHERS DO



#### We use it ourselves





Siri Hamre von Krogh Kolumbus



**Beta Mobility** 16



Isabelle de Robert **Mobility Data** 





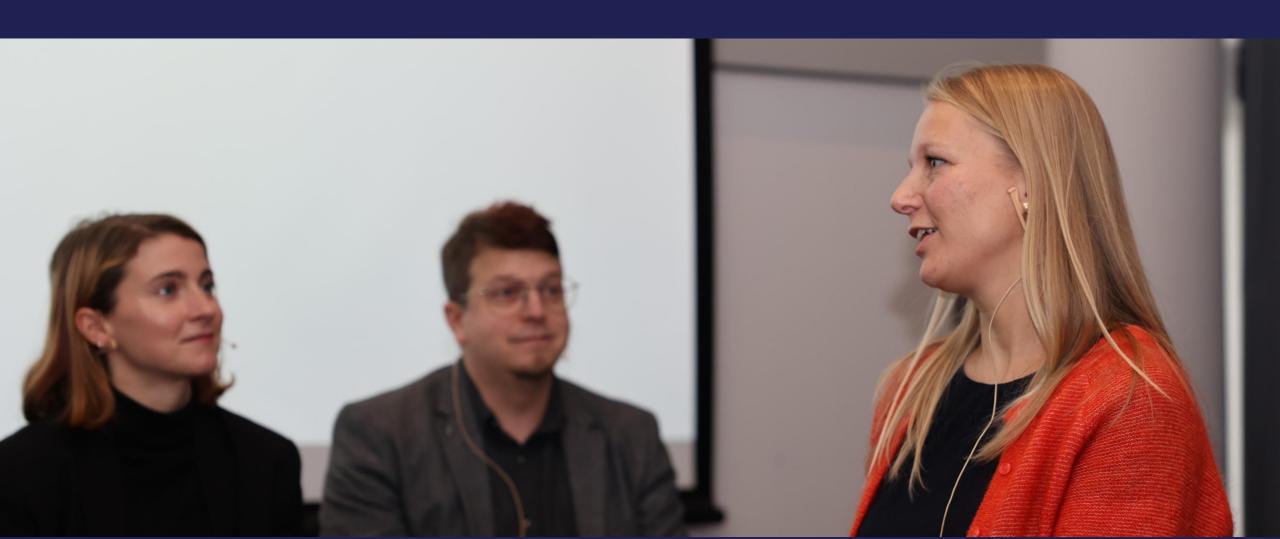
Brede Dammen Entur



Tu-Tho Thai Expert NeTEx,SIRI



## Treat NAP as part of the infrastructure!



## Support NAP implementation

...and use data from it!



#### GTFS/GBFS vs Transmodel and SIRI:

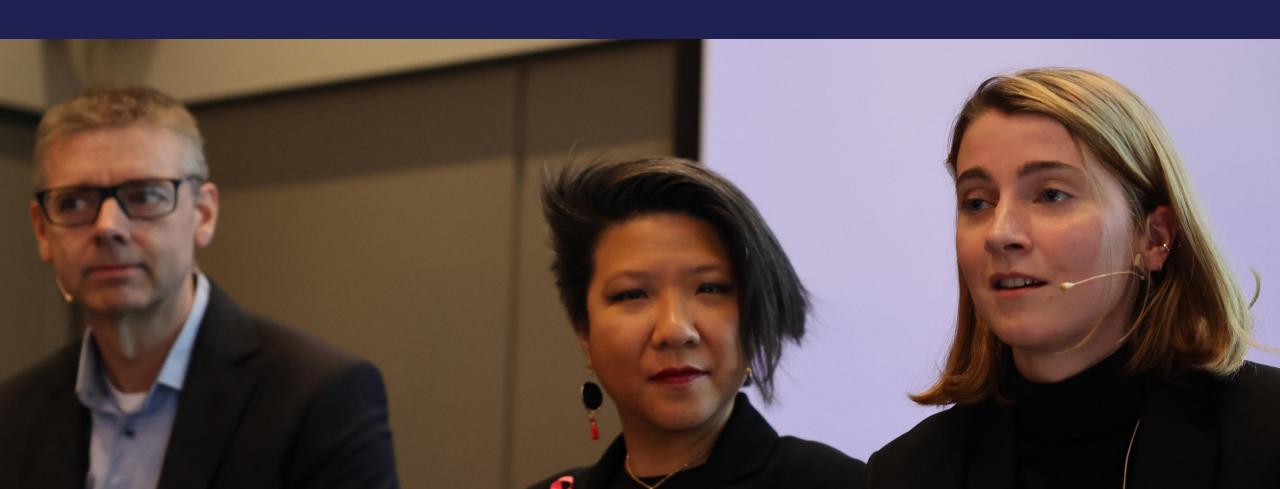
We need them both to work smoothly together!





### We need to share more data!

...and build ecosystems on it.



## Important next steps:

- 1. Reach out and collaborate
- 2. Share learnings and code
- 3. Don't be afraid to ask

