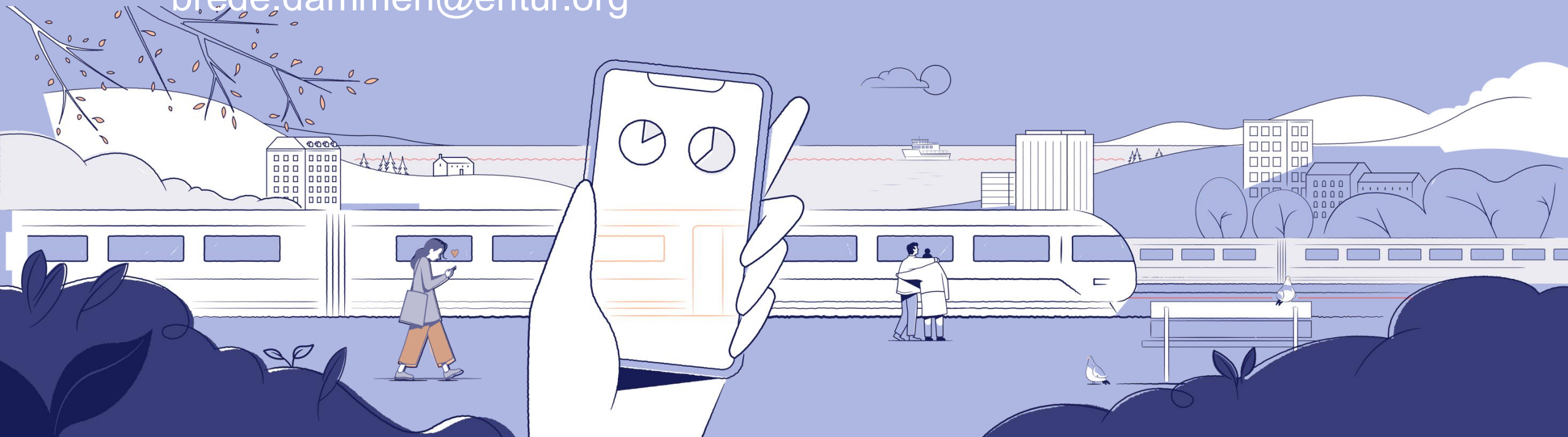


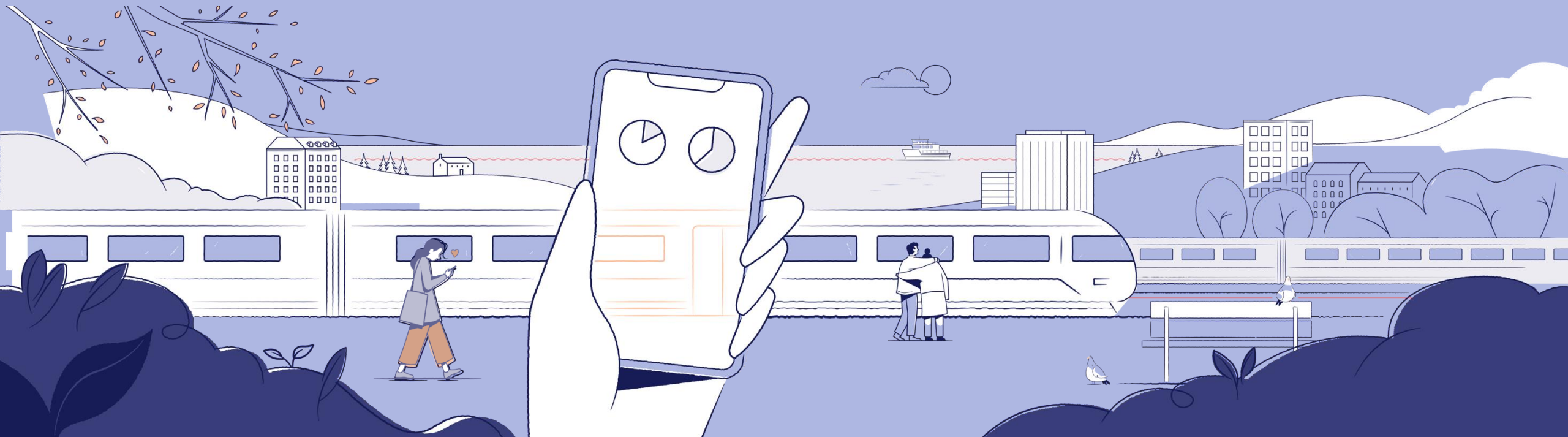
Connecting Nordic Public Transport

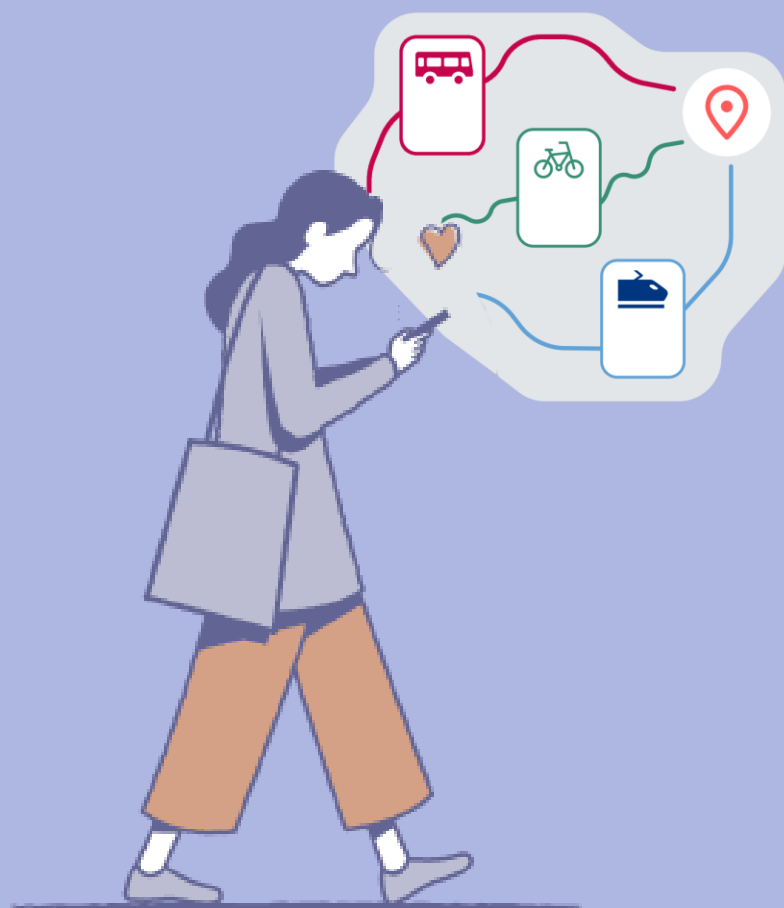
Using Data Standards to Benefit Passengers

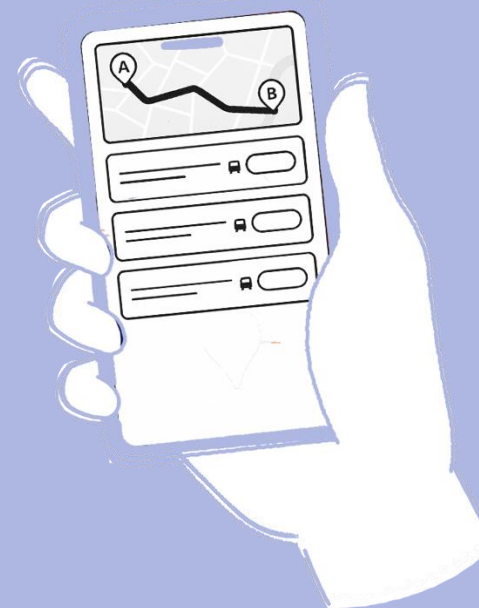
Brede Dammen, Head of national trip planner and mobility, Entur
brede.dammen@entur.org

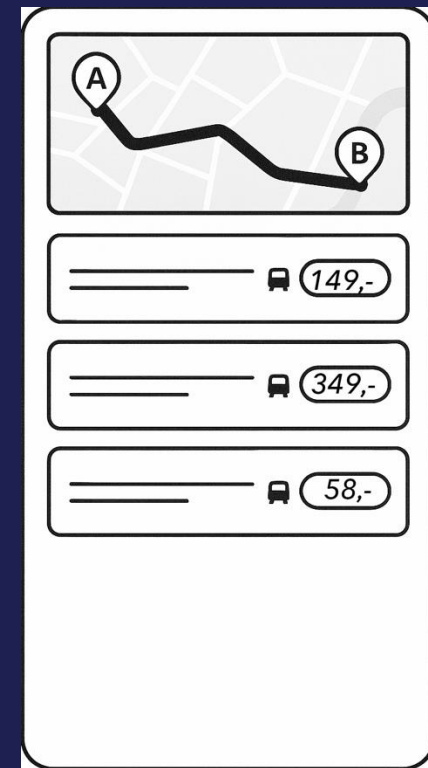
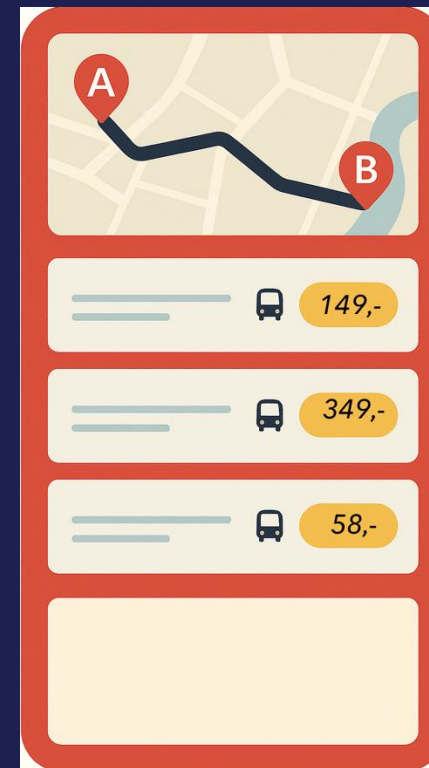


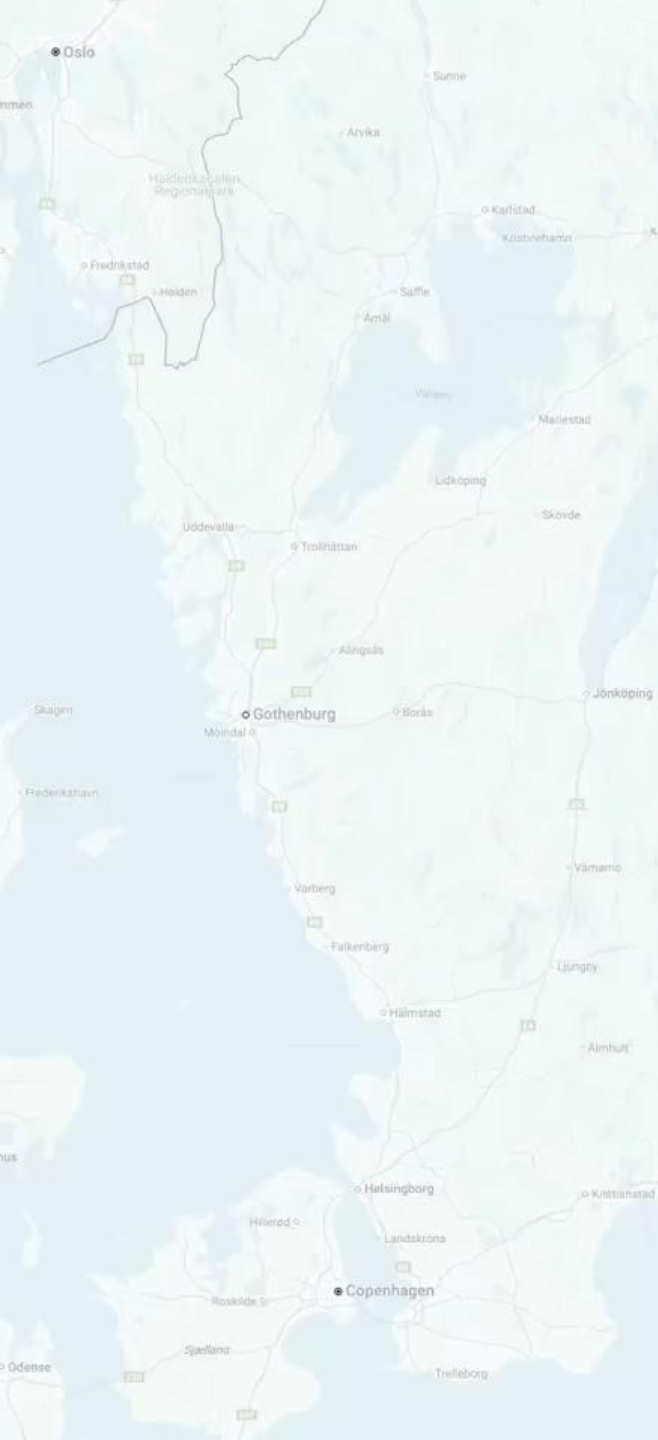
Data standards make public transport great!







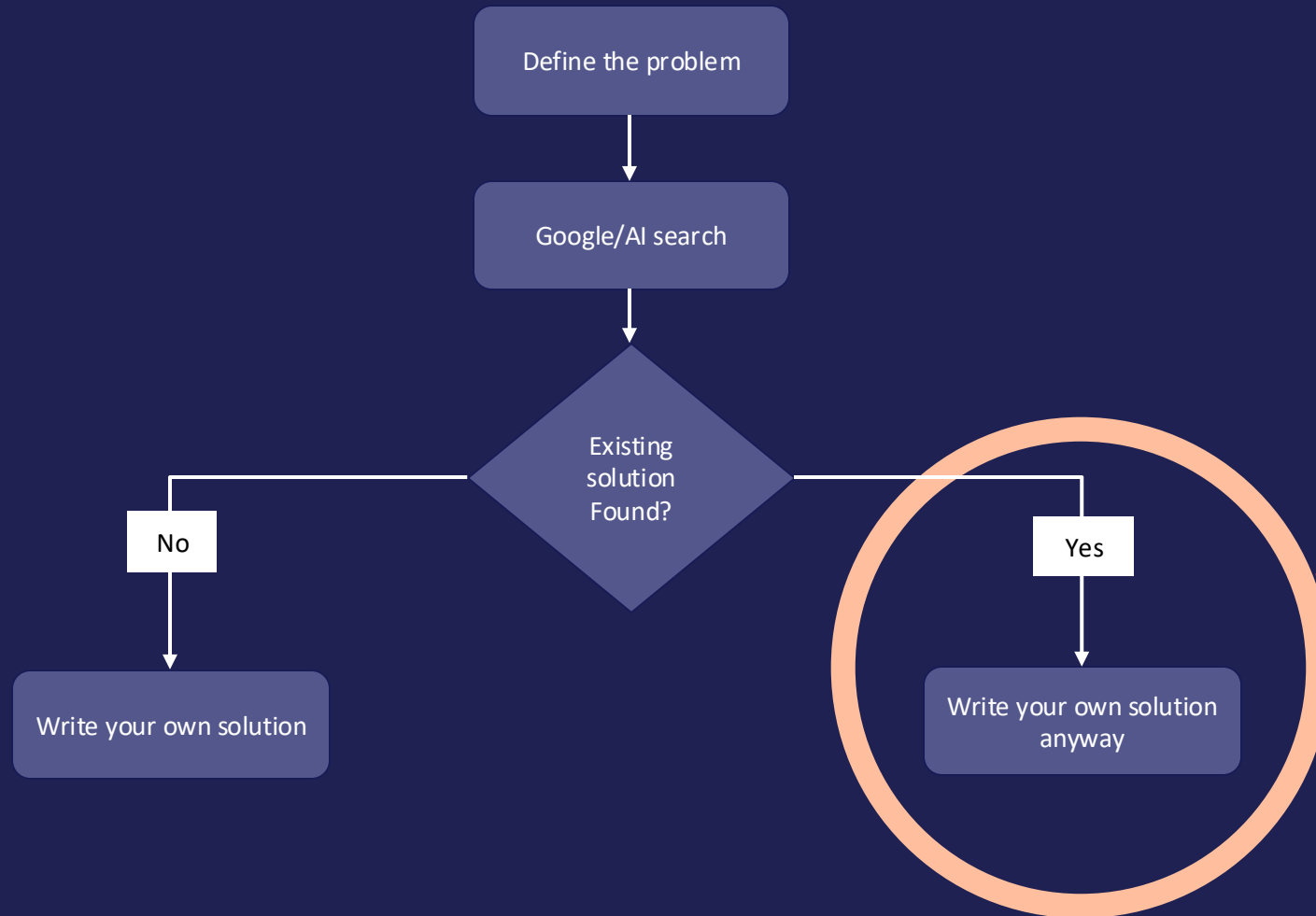




Crossing regions $\approx$ Crossing countries



Human Problem Solving

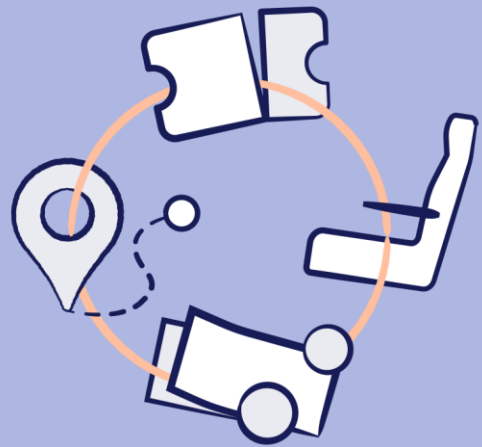


Stop reinventing
the wheel!

European Commissions Green Deal loves standards



MMTIS: Multi Modal Travel Information Service



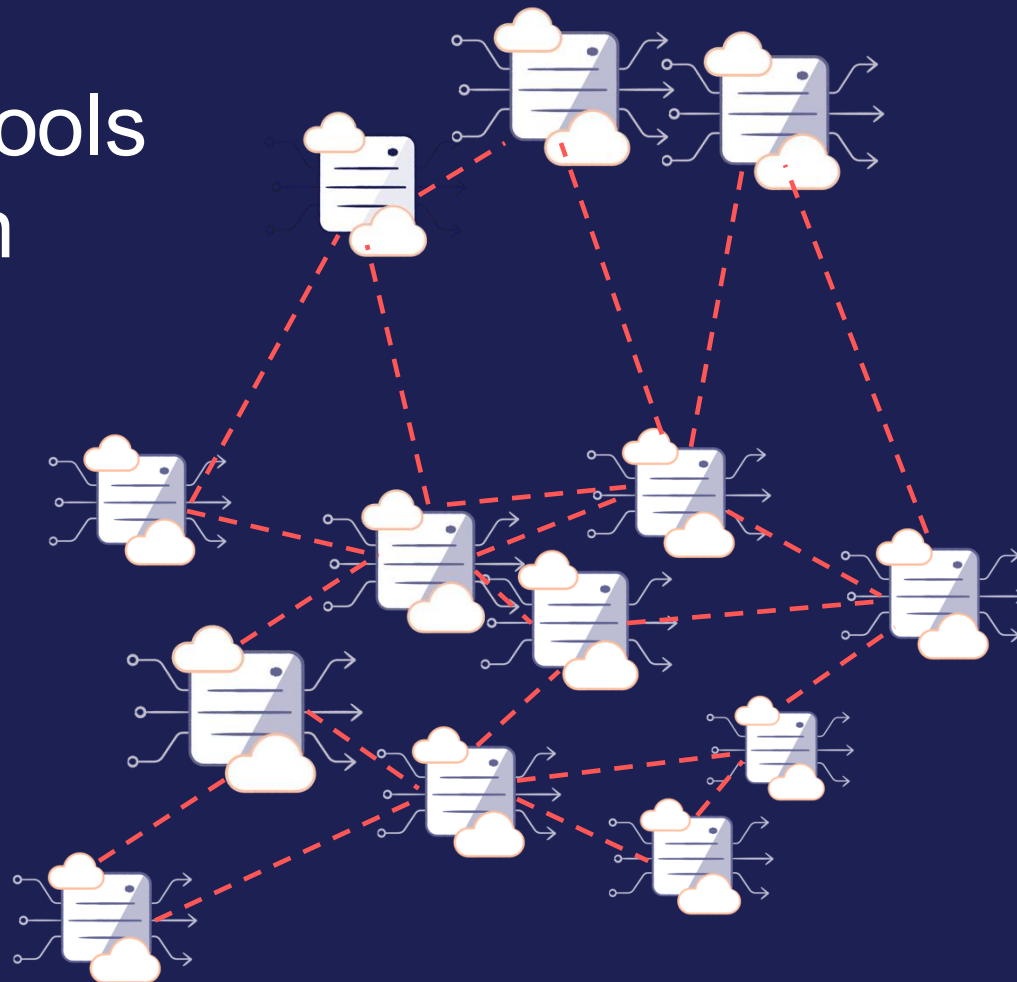
All mobilities must share!
All data must be shared!
Data must be shared to NAP!

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

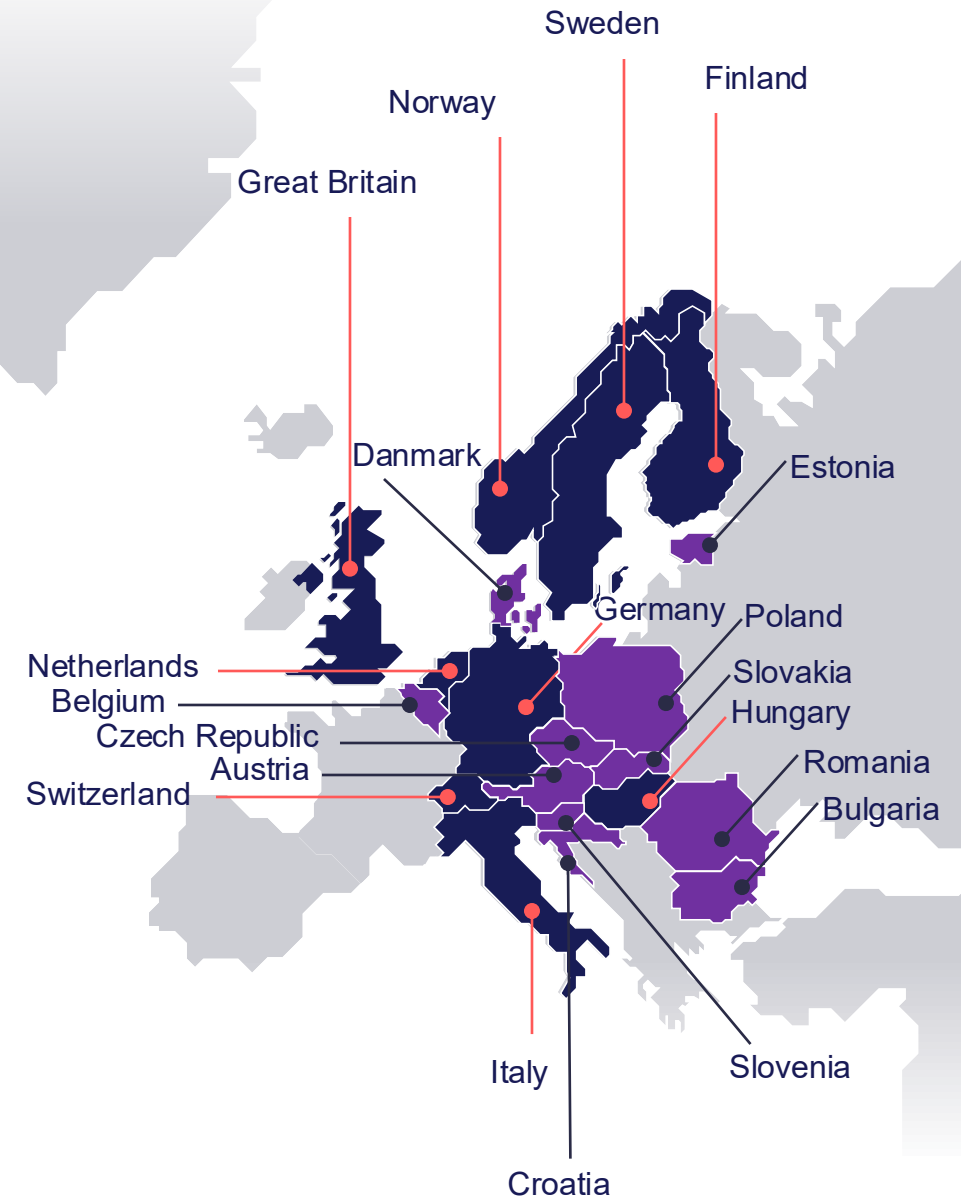
(exchange format dynamic
data - real time data)

OpRa+

(historical data)

Transmodel
(Conceptual data model)

Reference model for
information in the public
transport sector



Worldwide collaboration
Transmodel and GTFS

EAT YOUR OWN DATA – BEFORE OTHERS DO



We use it ourselves





Siri Hamre von Krogh
Kolumbus



Jaakko Rintamäki
Fintraffic



Isabelle de Robert
Mobility Data



Johan Høgåsen-Hallesby
Beta Mobility



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

