

Bicycles and ITS:

Making Cycling Smarter

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POLIS
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30 NOV.-3 DEC. 2020

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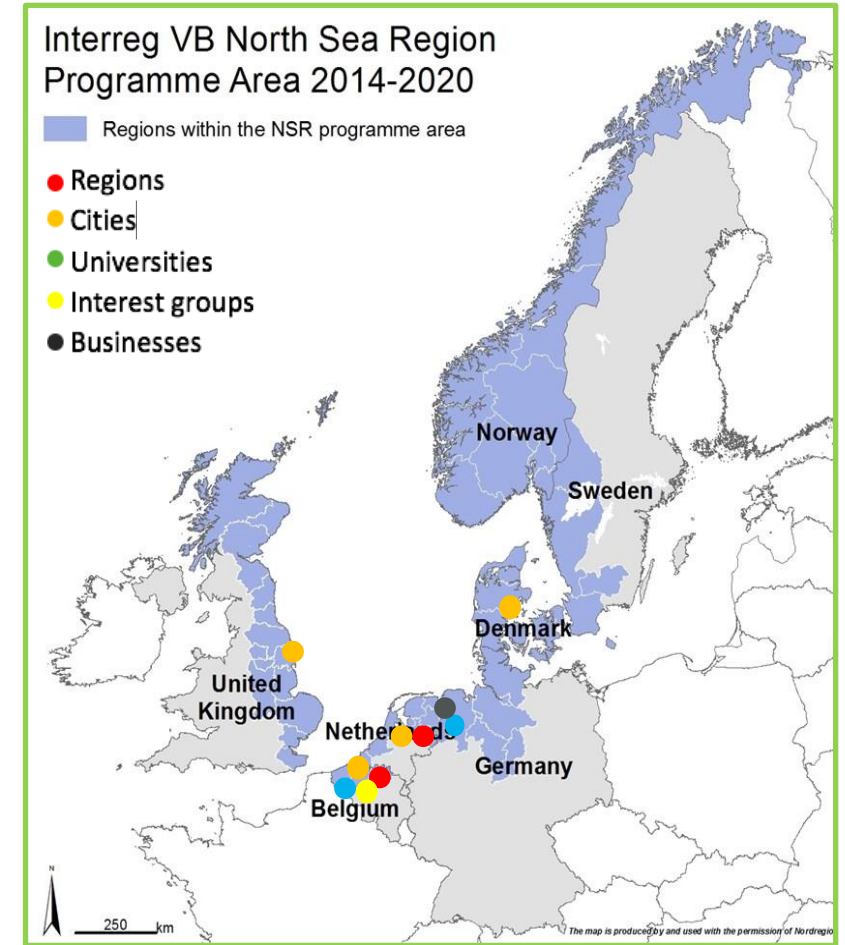
Why make cycling smarter? – our story



- Cycling is already a **smart solution**
- We can use technology and data to make it **safer and more attractive**
- To really make an impact, **knowledge and understanding of possibilities** is required
- We try to contribute to this with the first **large scale roll-out of ITS in cycling**

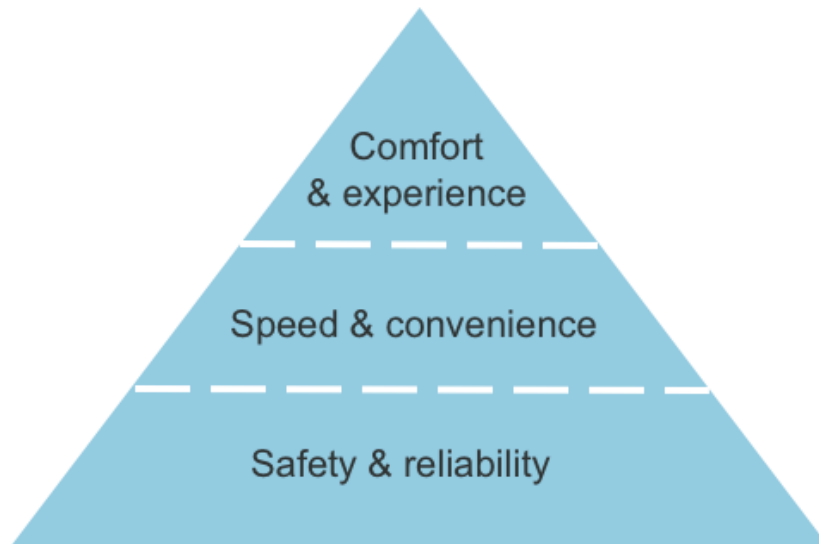
Bicycles and ITS (BITS)

- Project within Interreg NSR
 - Investing €4,9 mln. In cycling ITS and data
 - 50% co-funded by EU
 - Jan 2019 – March 2022
 - Partners:
 - NL: Province of Overijssel (lead), City of Zwolle
 - BE: Province of Antwerp, City of Bruges, VIVES, CIE
 - DE: Baron Mobility, University of Oldenburg
 - DK: City of Aarhus
 - UK: East Riding of Yorkshire Council

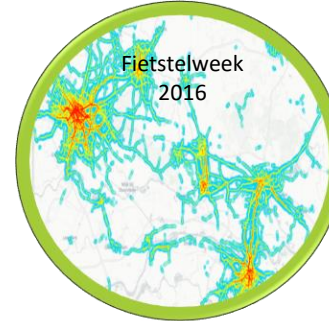


Opportunities of cycling ITS

- New technologies and data will make cycling more attractive



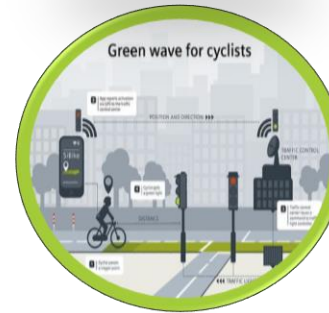
Bicycle pyramid (source: Province of Overijssel)



Floating bike data



Smart bike parking



Green wave for cyclists



Route-information for cyclists



- State of the Art overview (2020)
- Product & services directory (2021)
- Cycling ITS survey (2020)

More than 20 implementations

	Aarhus	Province of Antwerp	Baron (Niedersachsen)	Bruges	East-Riding	Zwolle	Overijssel
Comfort & experience			App for businesses App for citizens	Counting kiosk		Sniffer bike Information provision	Bicycle buddies Bicycle chain
Speed & ease of use	Travel times for cyclists Machine learning traffic lights			Parking referral system	On bike data collection	Green wave for couriers	
Safety & reliability	Safety by radar Rope light	3D cameras for safety		Realtime counting and route guidance	Bike library and support Counting cyclists	Safe bike crossing Cameras Bike lighting	
Open Data	Geographic Information System (GIS) CyclingDataHub						

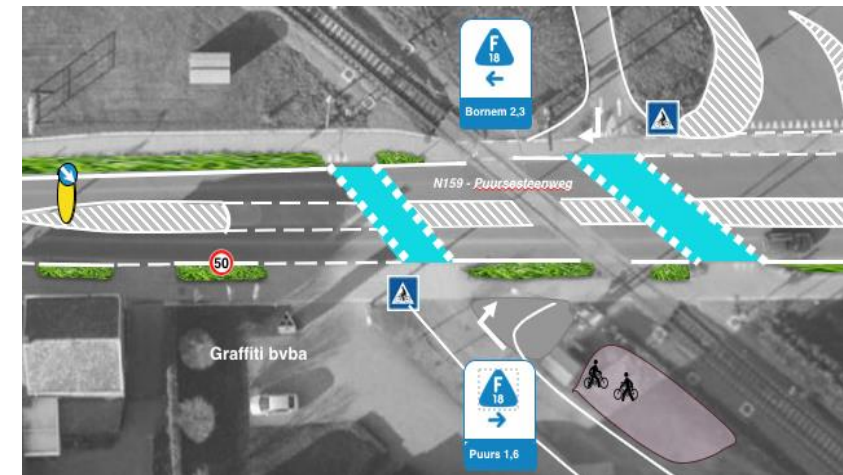
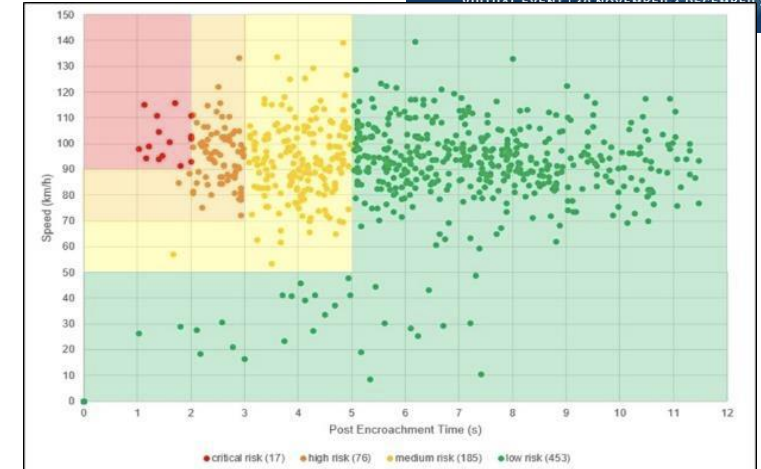
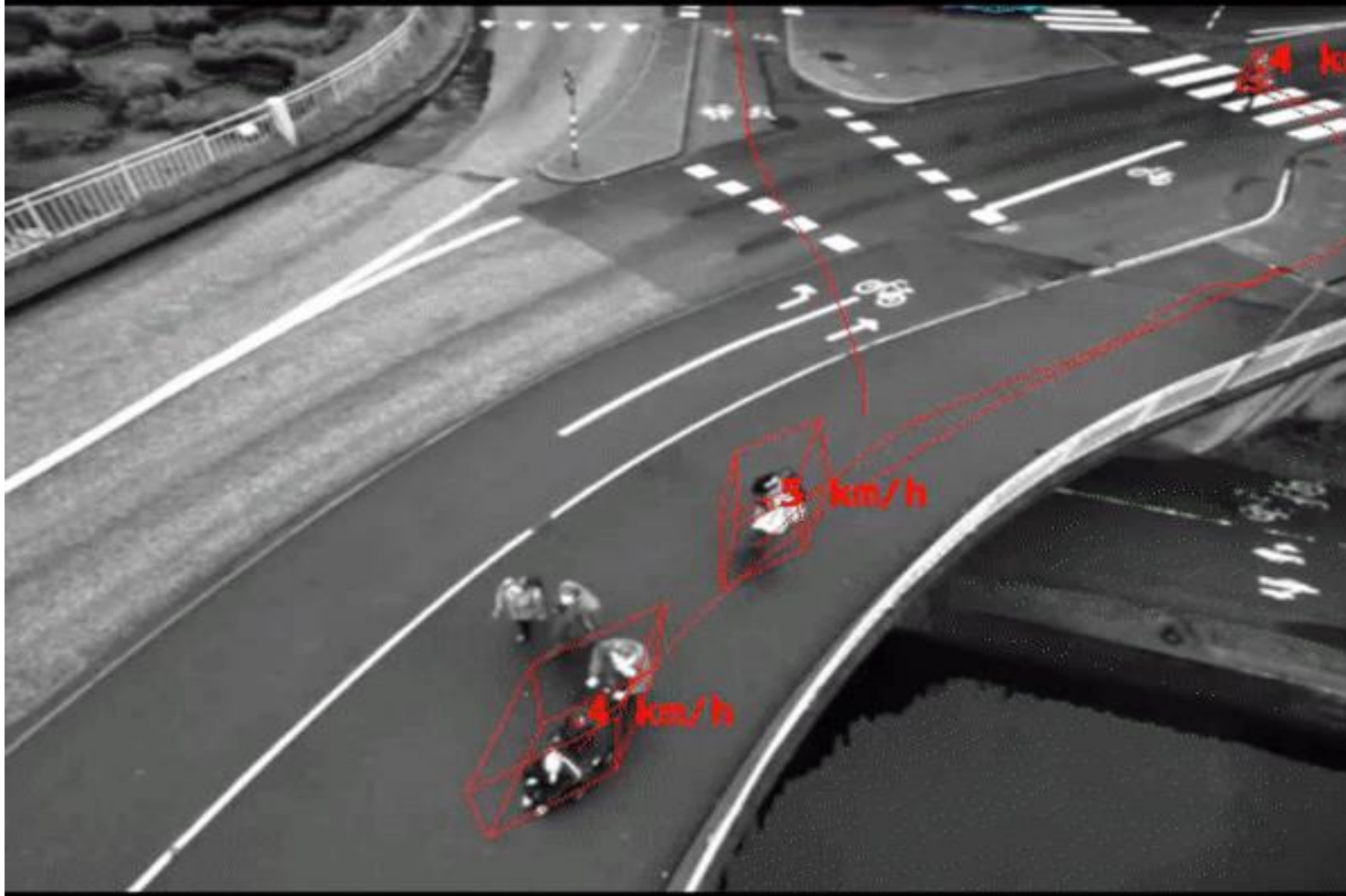
idea

planning

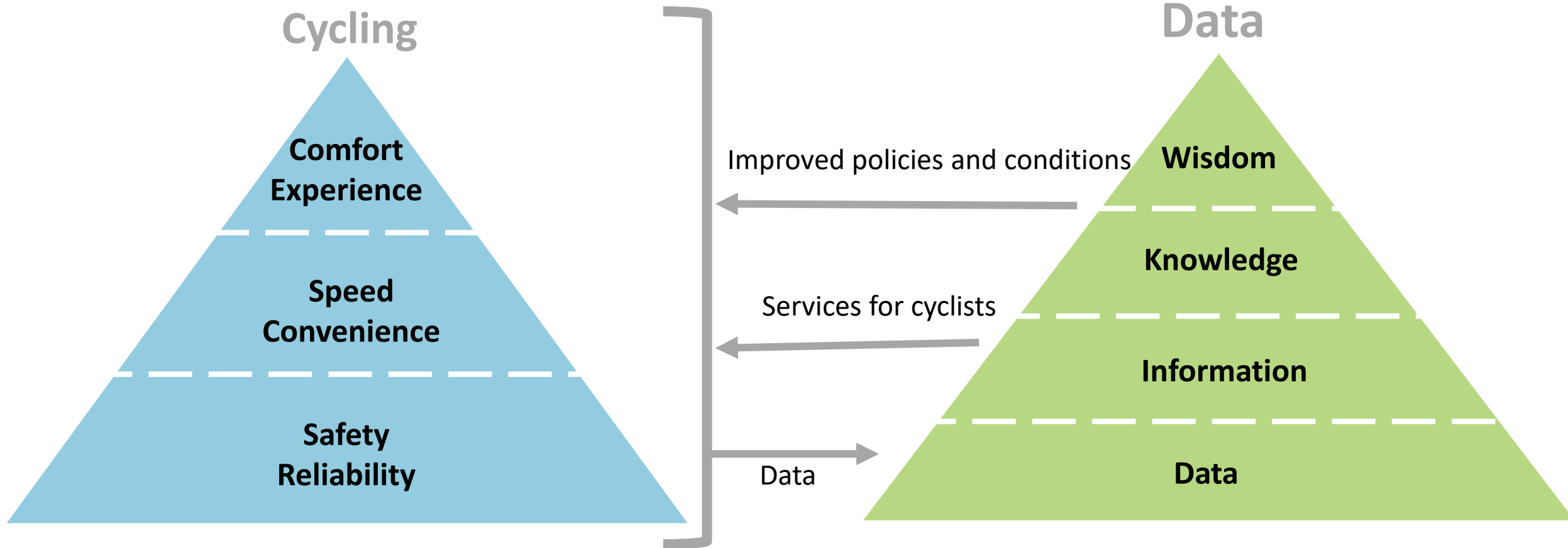
preparation

operational

Example: smart camera's



Data (reflex)



Data reflex: unlocking the data potential



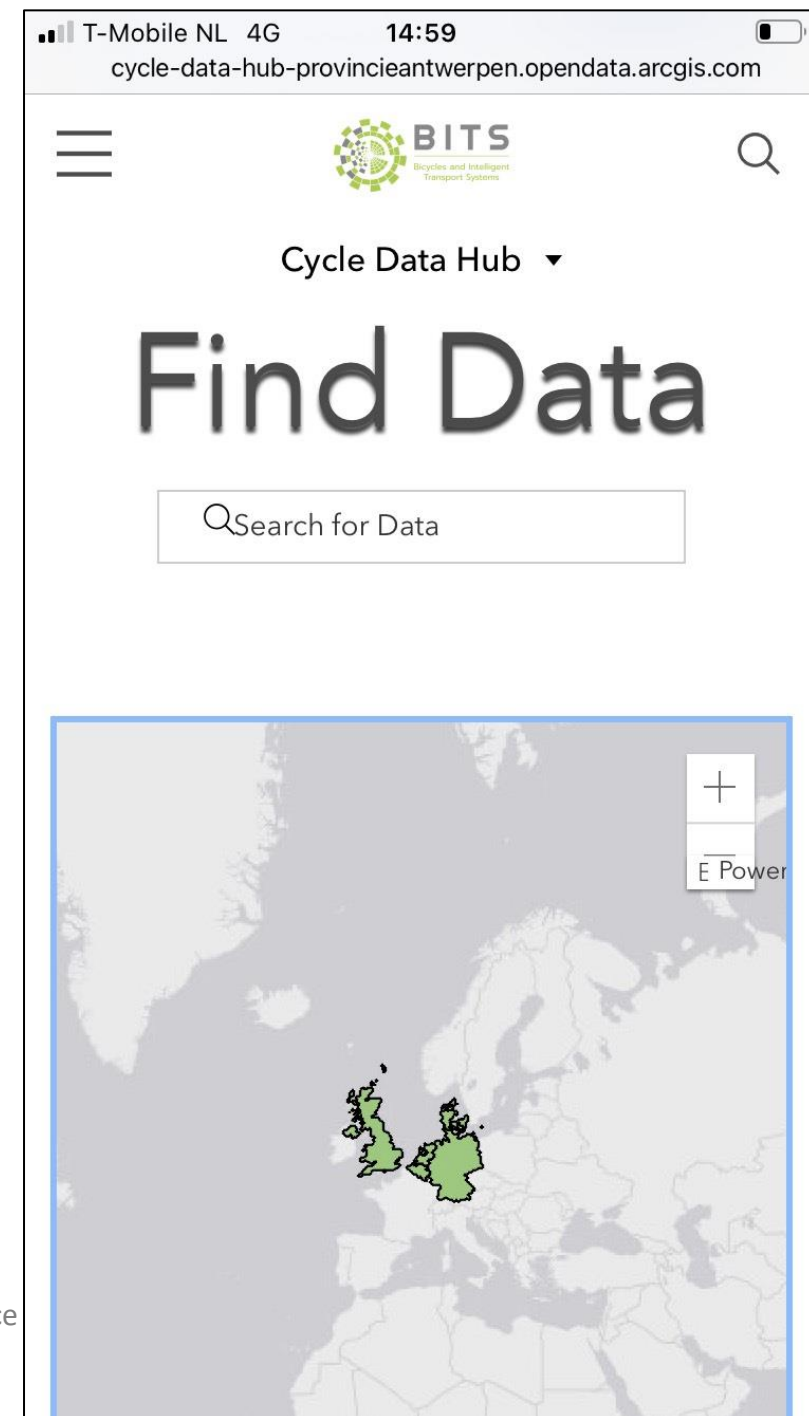
Example: bike library

- Bike library
 - Free bikes to borrow for residents
 - Training and coaching
 - ITS to improve riders' experience
- Data
 - Inform policy making
 - Measure social impact
 - More targeted coaching



Cycle Data Hub

- Open platform for sharing and finding data
- Testing phase - fully operational 1st half 2021
- Delegated regulation multimodal travel information services (NAPs)



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