deployEMDS: Towards the common European mobility data space
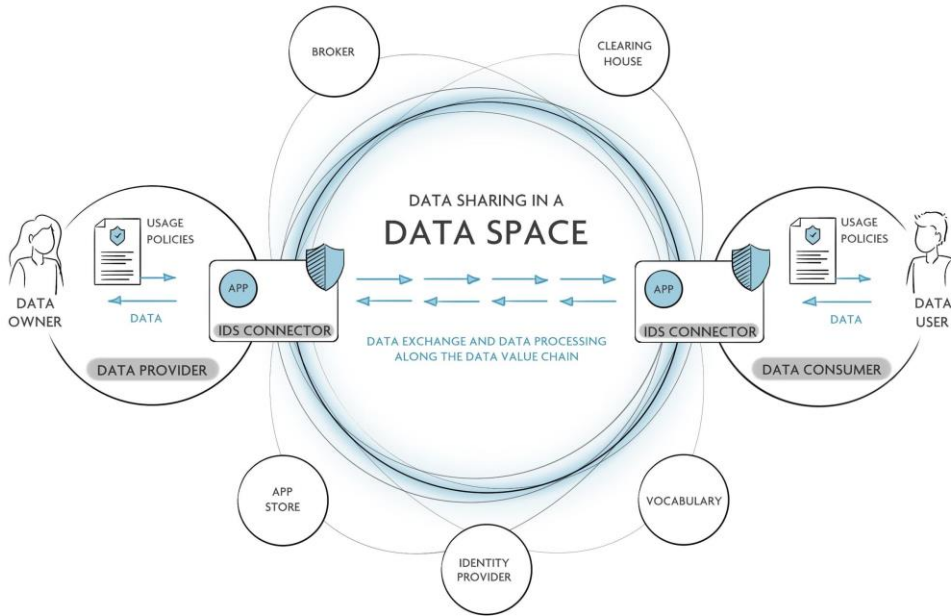**Tampere deployment site**

Johan Scholliers

02/04/2025 **VTT – beyond the obvious**
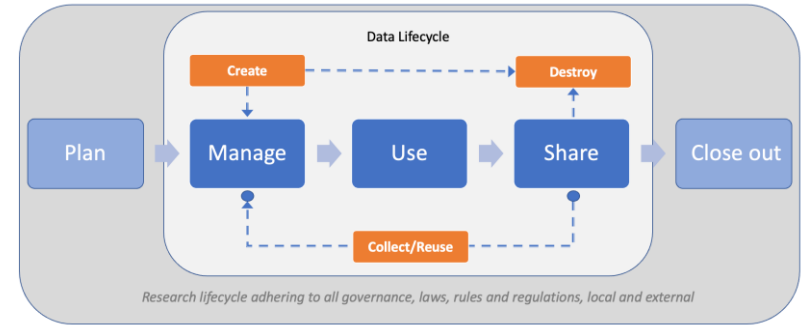
Contents

- Dataspace
- Plans of the Commission

- deployEMDS
  - Project
  - Tampere deployment site

Data space

© International Data Spaces

A Data Space is a framework…

… that supports data sharing within a data ecosystem.
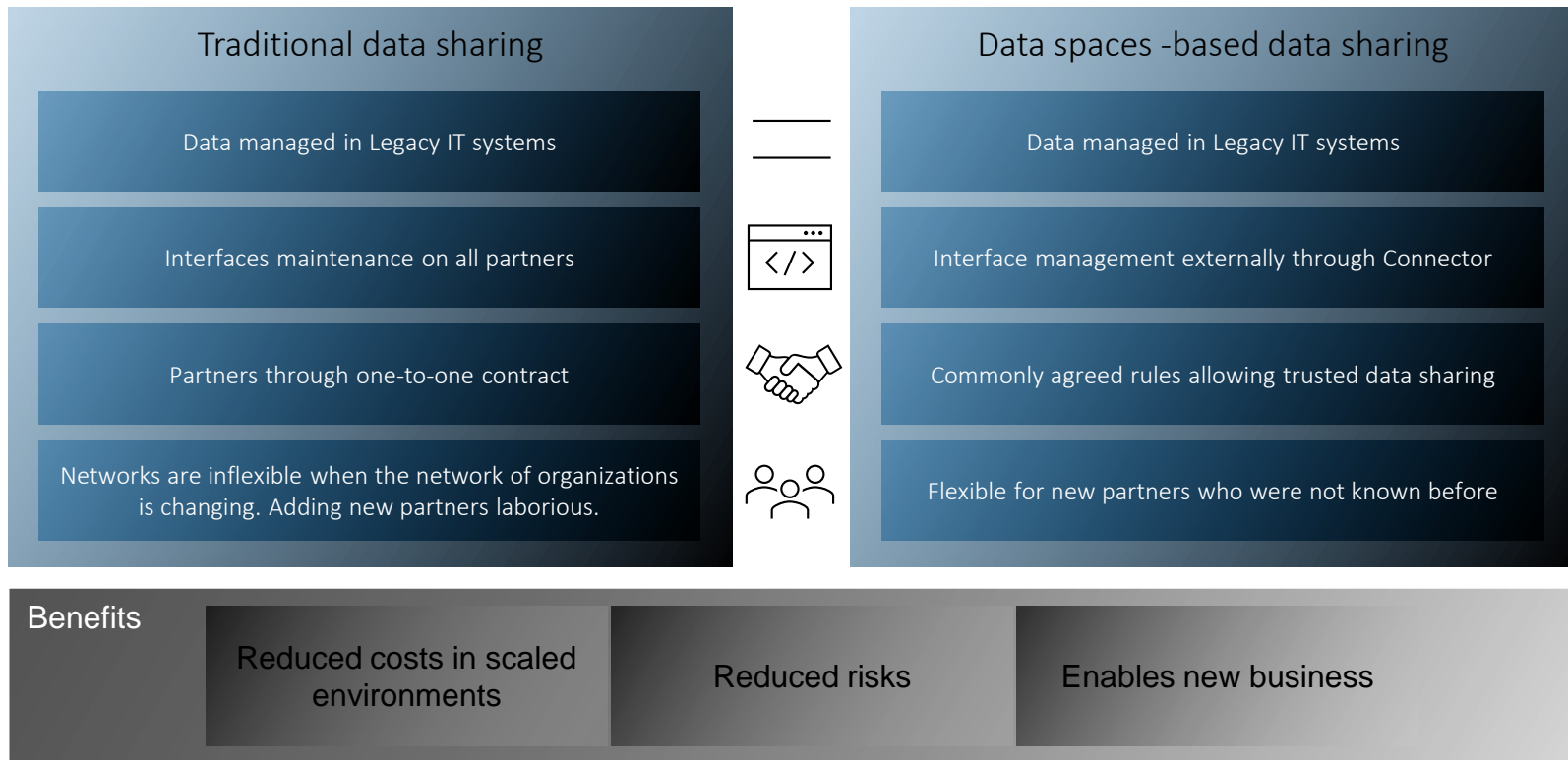
It provides a clear structure for participants…

… to share, trade, and collaborate on data assets…

… in a way that is compliant with relevant laws and regulations…

… and ensures fair treatment for all involved.

https://international-data-space.ec.europa.eu/helpdesk/what-data-space_en

Data spaces benefits

Traditional data sharing

- Data managed in Legacy IT systems
- Interfaces maintenance on all partners
- Partners through one-to-one contract
- Networks are inflexible when the network of organizations is changing. Adding new partners laborious.

Data spaces -based data sharing

- Data managed in Legacy IT systems
- Interface management externally through Connector
- Commonly agreed rules allowing trusted data sharing
- Flexible for new partners who were not known before

Benefits

| Reduced costs in scaled environments | Reduced risks | Enables new business |

VTT

A common data space can help address key challenges in the mobility domain

CHALLENGES	Fragmentation of data sources	Reluctance to share data due to security and competition concerns	Lack of interoperability between different data types and standards	Underutilised innovation potential of mobility data
OPPORTUNITIES	Better discoverability and accessibility of data	Data sovereignty and trust through identification & usage policies	Convergence towards common standards	New data-driven solutions and business models

Actions from the EC supporting the common European mobility data space

VTT

Preparatory action
Digital Europe Programme

12 months coordination & support action: PrepDSpace4mobility

Oct 2022-Sept 2023 ✓

→Map existing mobility data ecosystems

→Recommend first common building blocks

VTT partner

Deployment action
Digital Europe Programme

36 months deployment action: deployEMDS

Kick-off Nov 2023 ✓

→Deployment of mobility data sharing use cases related to traffic and urban mobility indicators

VTT, Fintraffic, City of Tampere partners

Technical assistance
Connecting Europe Facility

12 months study

Kick-off Jan 2024 ✓

Followed by a deployment action in 2025 (TBC)

→Focus on the governance, and interlinking layer and further definition of building blocks and interoperability

VTT lead

- Building on the **Data Spaces Support Centre** and **SIMPL**

European Commission

deployEMDS project

- 45 European partners,
- Build a decentralised technical infrastructure and common governance mechanisms for urban mobility use cases in 9 cities and regions across Europe
- www.deployemds.eu
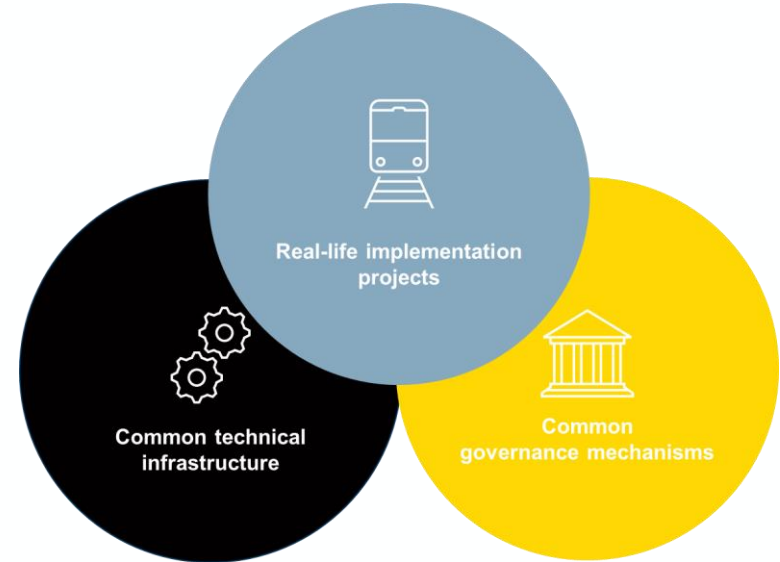
Barcelona   Budapest   Flanders   Ile-de-France region   Lisbon   Milan   Sofia   Stockholm   Tampere

deployEMDS at a glance

36 months (Nov 2023 – Oct 2026) | Budget: ~EUR 16 million

38 beneficiaries (cities, regions, technical & domain expertise) | 7 associated partners

Approach

- One common infrastructure following the DSSC Blueprint
  - Testbed and technical specifications
  - Data space + Connector-as-a-Service provided to partners for realising their use cases
- One common governance with subsidiarity mechanisms
  - Policy labs with participating cities and regions
  - Analysis and guidance on applicable regulations
- Realising interoperability via a **win-win** for participating cities/regions

Use cases: Tampere

- Collection of data, which are mandated in the ITS directive, and interface to Finnish NAP

- Improve monitoring of real-time traffic information, in order to strengthen the city's ability to assess the impact of the actions taken towards optimising the transportation system, related emissions and calculation of UMI indicators
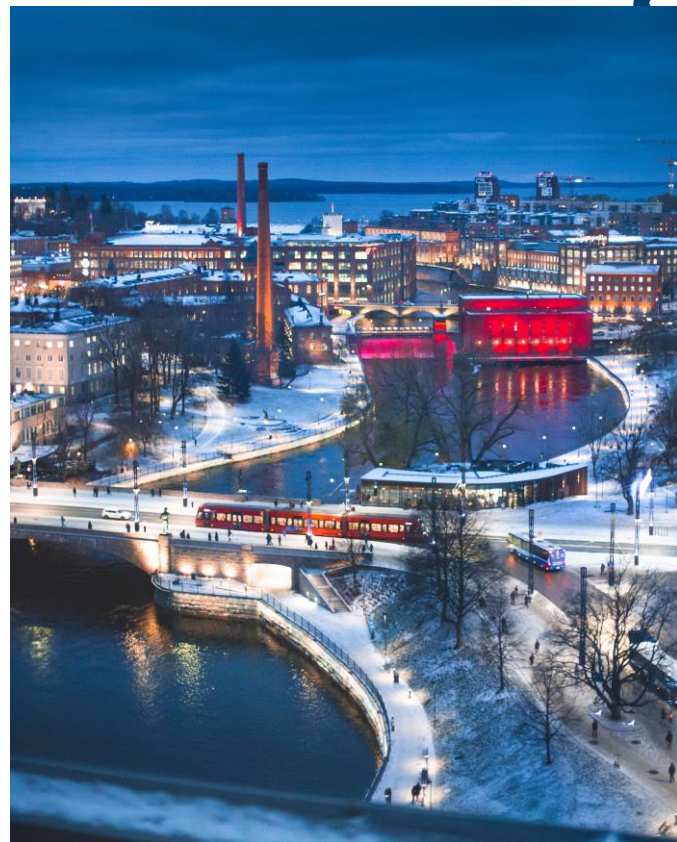
© Visit Tampere

# Tampere data products and data sets

1. MVP
   1. Static PT data
   2. Dynamic PT data
   3. Traffic events
      1. Traffic events, winter maintenance

2. 2nd phase
   1. History PT data
   2. Multimodal data
      - P&R data, bike parking, city bikes, e-scooters

SmartRail3 TP4: Cross-sectoral "Urban" Data Space

The objective is to study how the functionality of urban mobility services can be improved by facilitating the distribution and utilisation of data between different sectors, through a cross-sectoral urban data space.
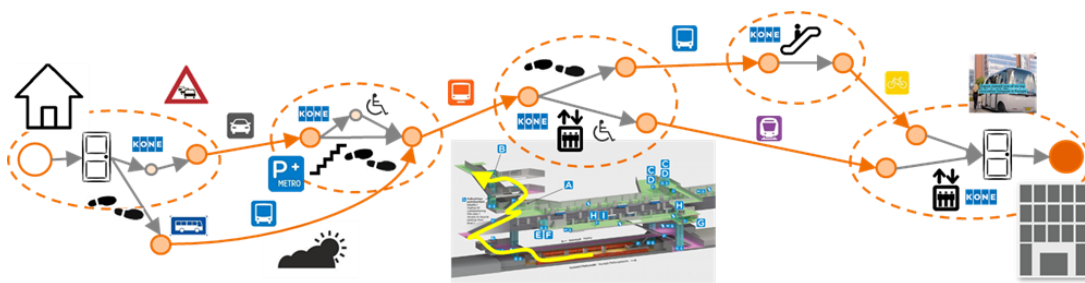
The data space itself does not guarantee data compatibility. In order to function, data spaces require operating models related to organisation and contractual practices between companies, as well as definitions and solutions that promote the compatibility of data at the semantic and technical levels.
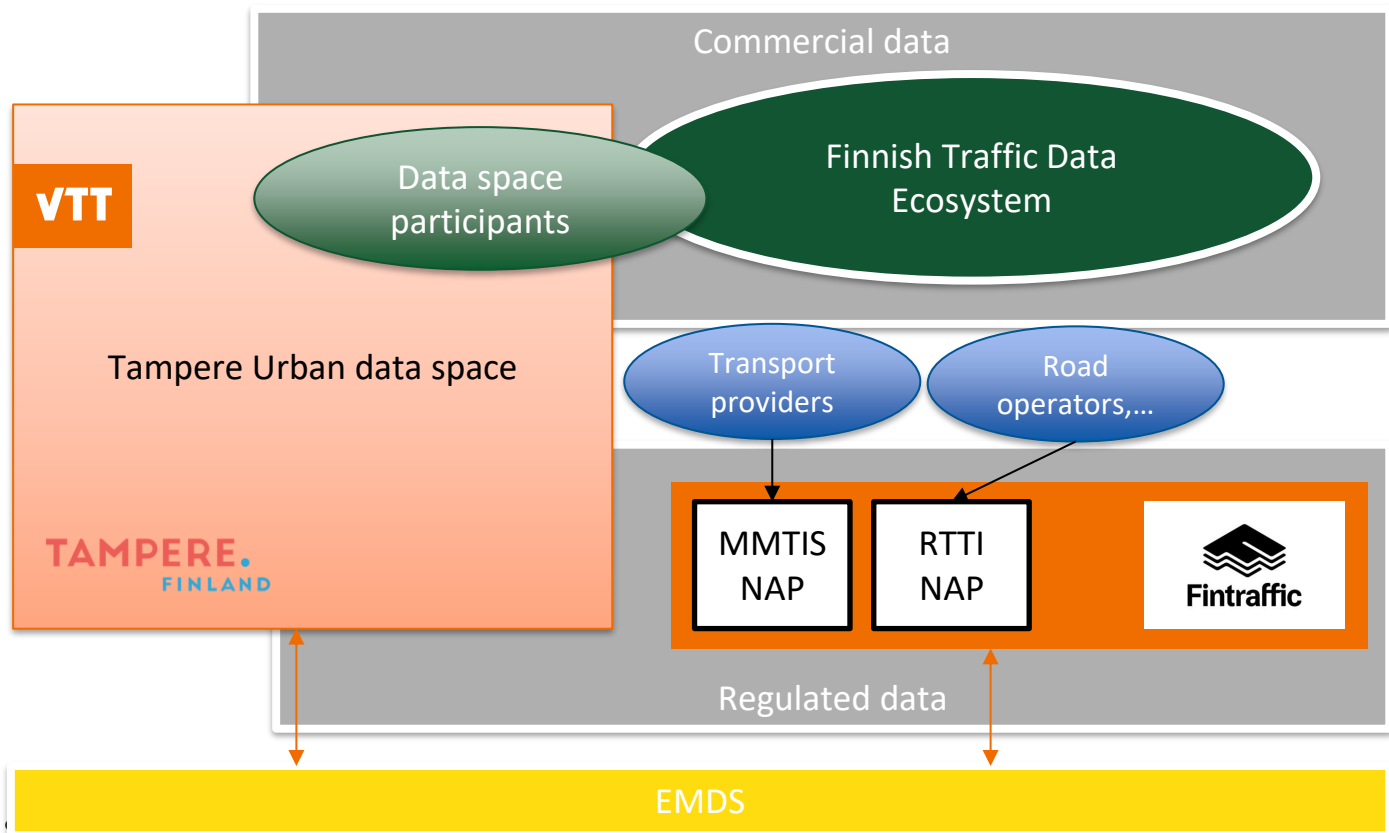
T4.1
Situational picture report (IDS, Gaia-x, EMDS, SIMPL, standards, data models, ontologies, vocabulary...)

T4.2
Business and management models for the cross-sectoral urban data space

T4.3
Planning and implementation of the concept of the cross-sectoral urban data space

T4.4
Piloting and Evaluation of a cross-sectoral urban data space

Ecosystems

Tampere Urban Data Space: Roadmap

- **Phase 1 (2025):** POC implementation in SR3 + deployEMDS projects. Includes 1-2 selected basic use cases ("low hanging fruits")
  - Implementation possibly on top of the SIMPL framework (open source, ...)
  - SR3 use cases and companies involved
  - deployEMDS via European Interoperability
  - Offered for use to the Lyyli innovation cluster
  - Taking into account existing and future regulation.
- **Phase 2 (2026):** Expansion of use (new "cross-sectoral" use cases).
  - The pilot, other projects, utilize, a new joint project of the group of actors, e.g. Shared Benefit project.
- **Phase 3 (2027->):** Operational/commercial activities for the information space
  - Requires a management model, a financing model and an owner
  - Data monetization,...