

# PrepDSpace4Mobility

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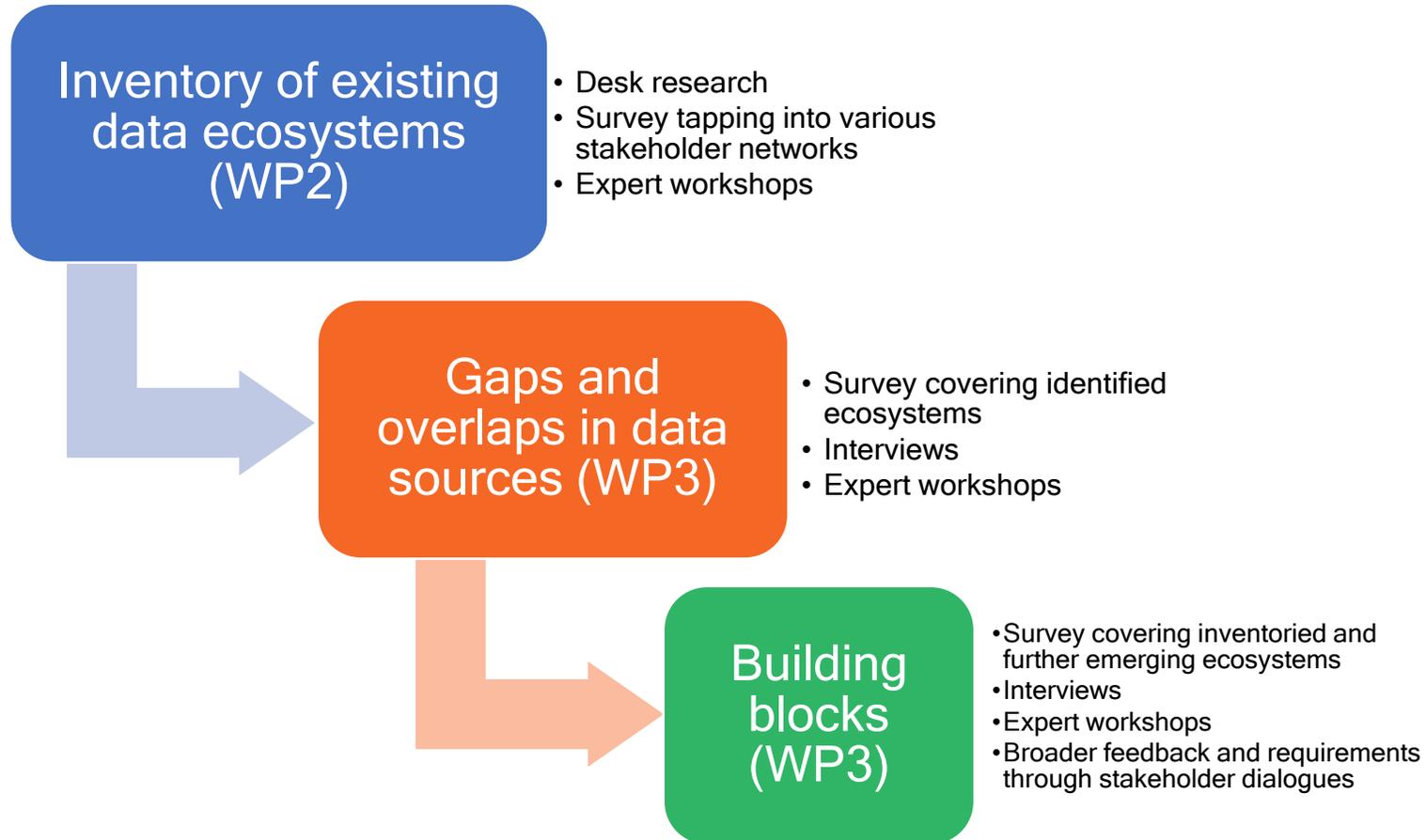
WP 3: Harrie Bastiaansen – TNO



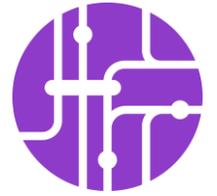
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# Our approach



# Inventory of mobility and logistics data ecosystems



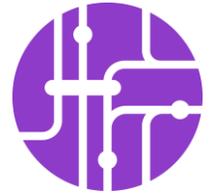
## MAPPING WHAT EXISTS

Existing data ecosystems can be found all over Europe, yet their characteristics might vary heavily. PrepDSpace4Mobility creates an extensive understanding of the current landscape by

- ✓ Identifying existing European data ecosystems in the mobility and logistics sector
- ✓ Creating a catalogue summarising all relevant data ecosystems including valuable information about the type and quality of data

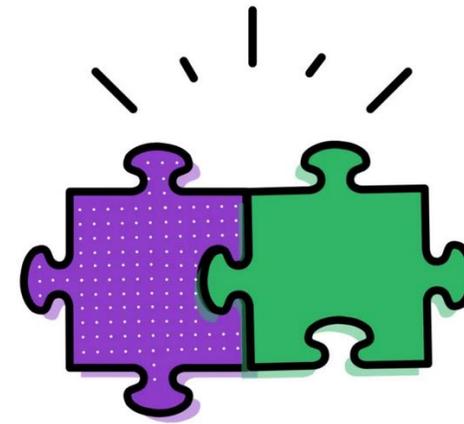


# Inventory of mobility and logistics data ecosystems

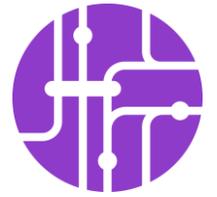


The **inventory** of relevant data ecosystems will be the basis for:

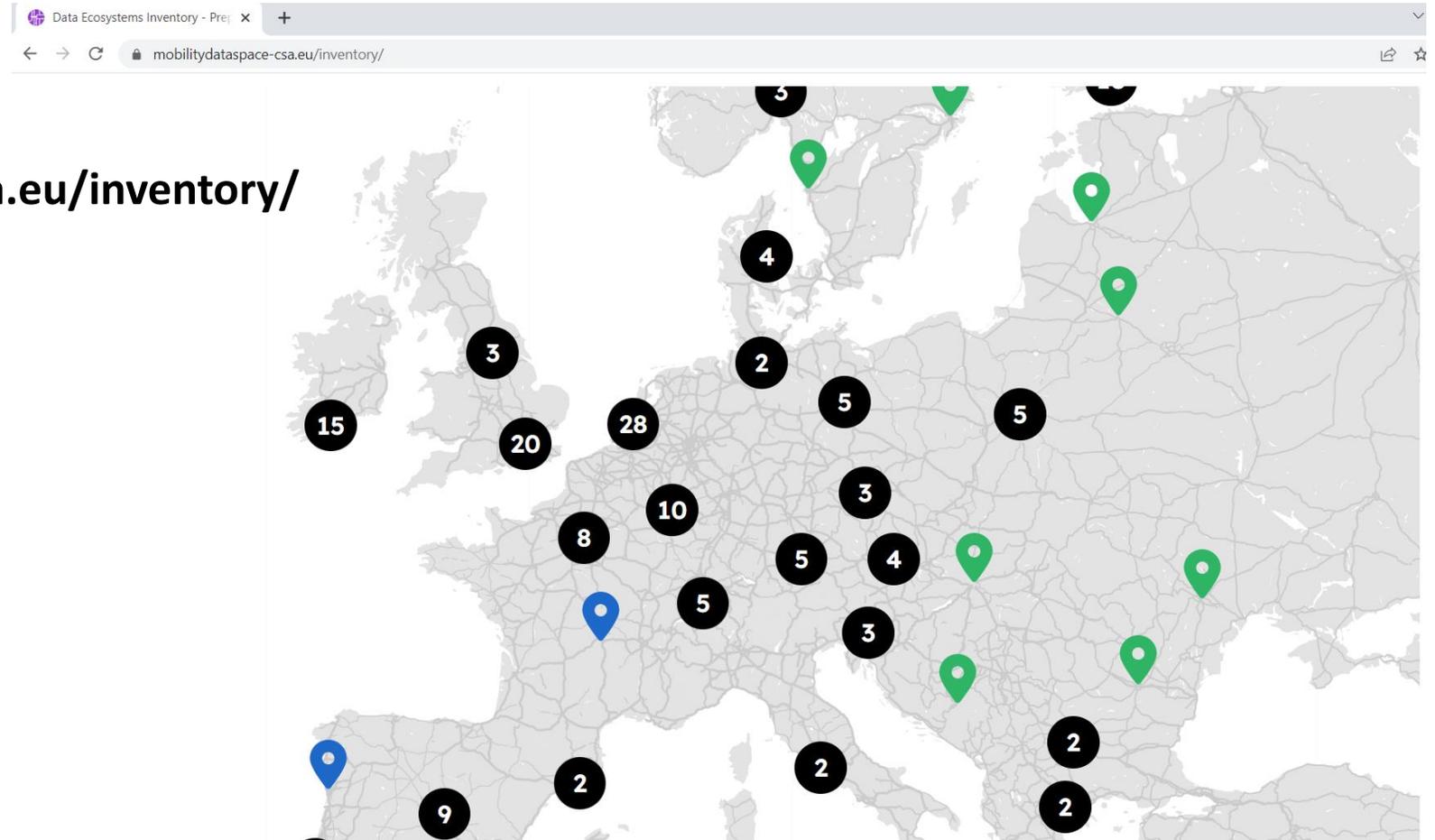
- Analysis of gaps and overlaps of existing private, public, or industrial data sharing initiatives (geographic, thematic)
- Identifying common and domain specific building blocks as well as linking capabilities and integration points
- Engagement with stakeholders



# Inventory of mobility and logistics data ecosystems

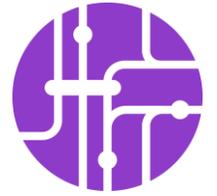


→ <https://mobilitydataspace-csa.eu/inventory/>



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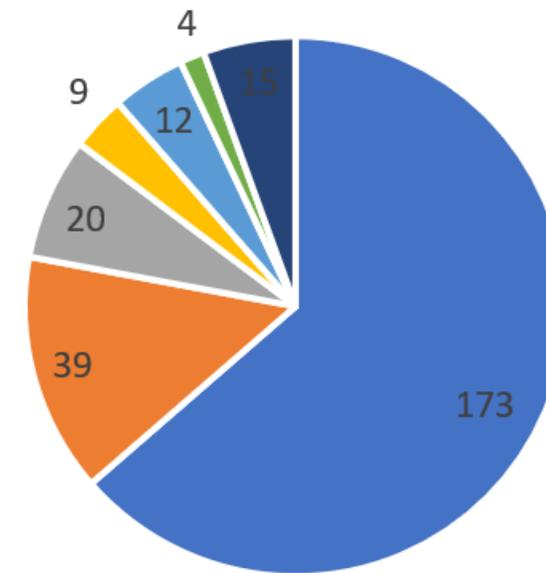
# Inventory of mobility and logistics data ecosystems



Wie have currently

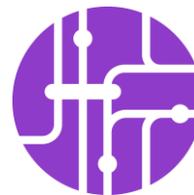
- 411 inventory entries
- approx. **275** match our criteria and are online on the map

Platforms by Traffic Mode



■ Cross Modes ■ Road ■ Rail ■ Air ■ Maritim ■ Inland Water Way ■ Freight/Logistics



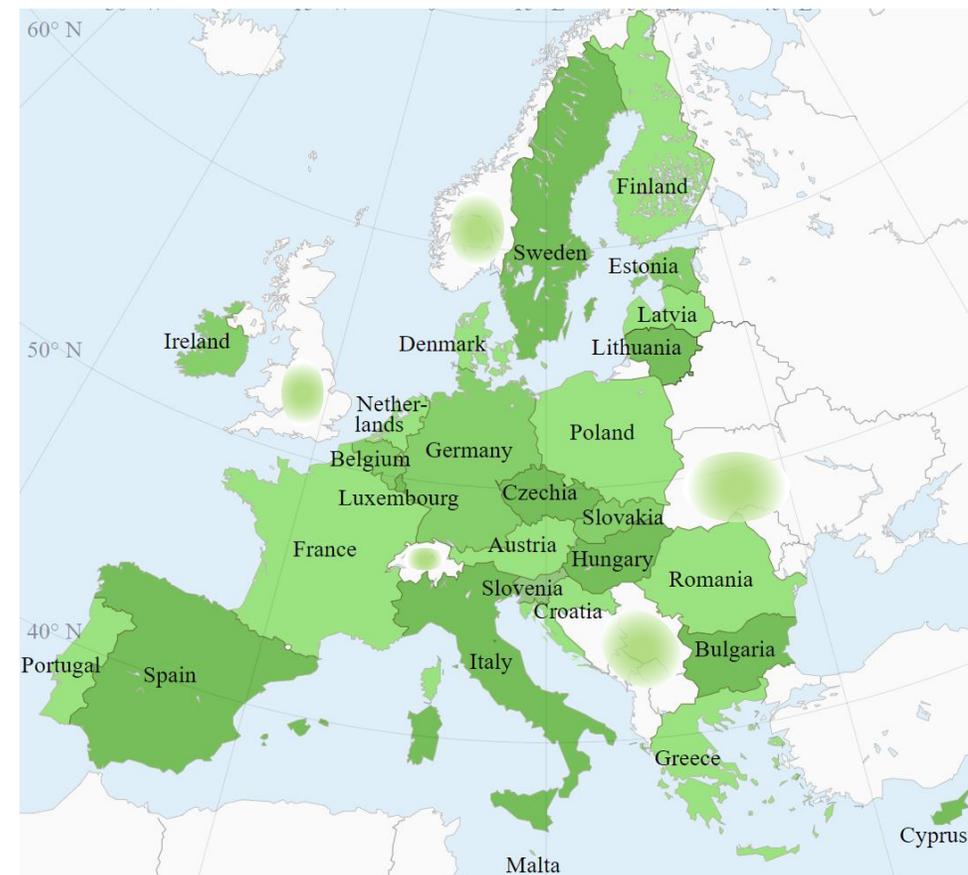


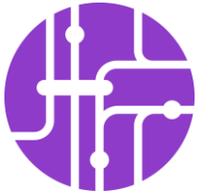
# Relevance Criteria and Scope

Criteria for what is a **relevant** ecosystem to us:

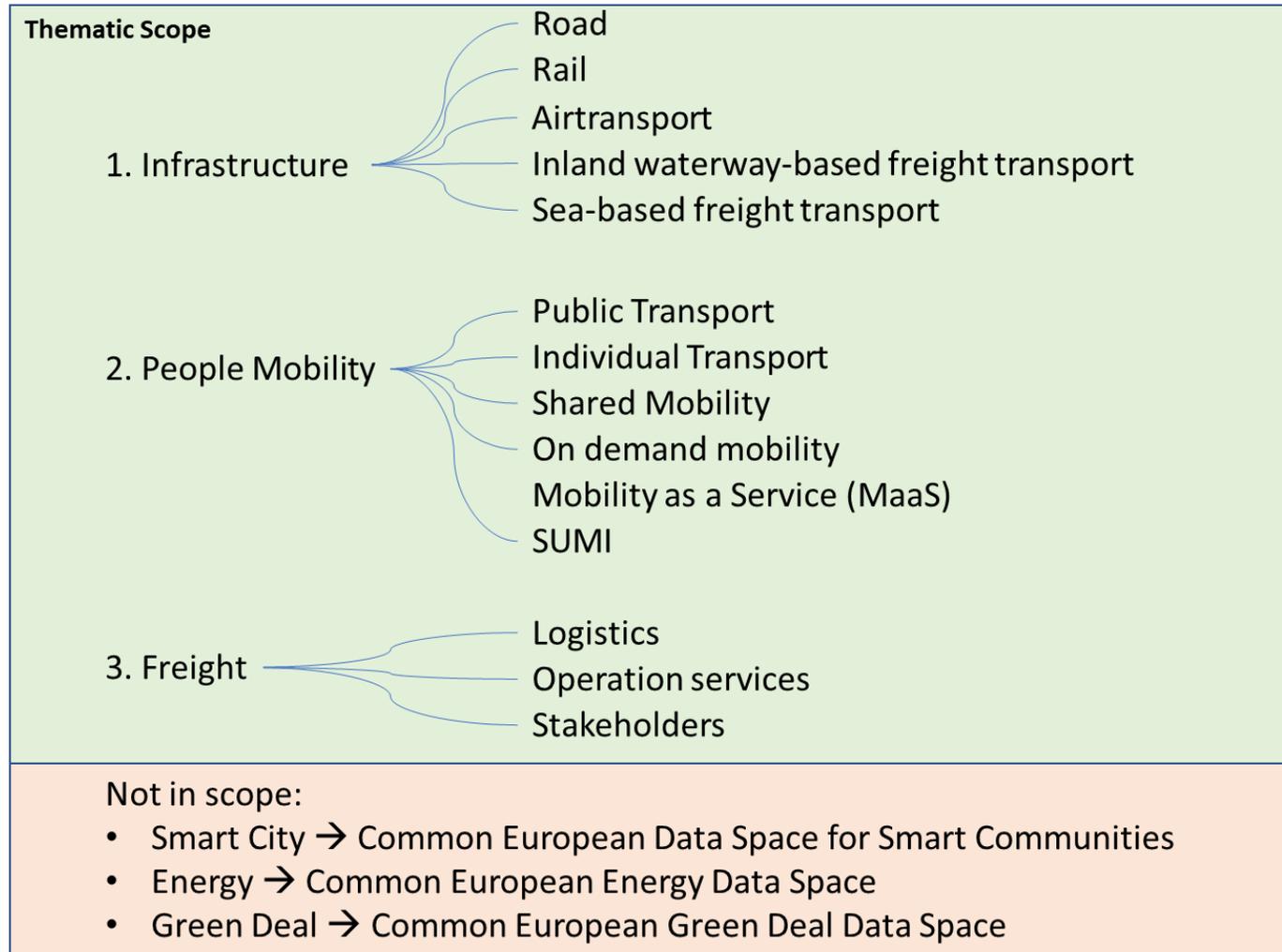
- focus is one-to-many data provision / sharing / consumption between participants
- multiple data providers or participants
- multiple data or service offers
- **is in (near) productive operation**
- Within a defined **thematic** and **regional** scope

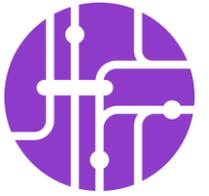
regional scope:





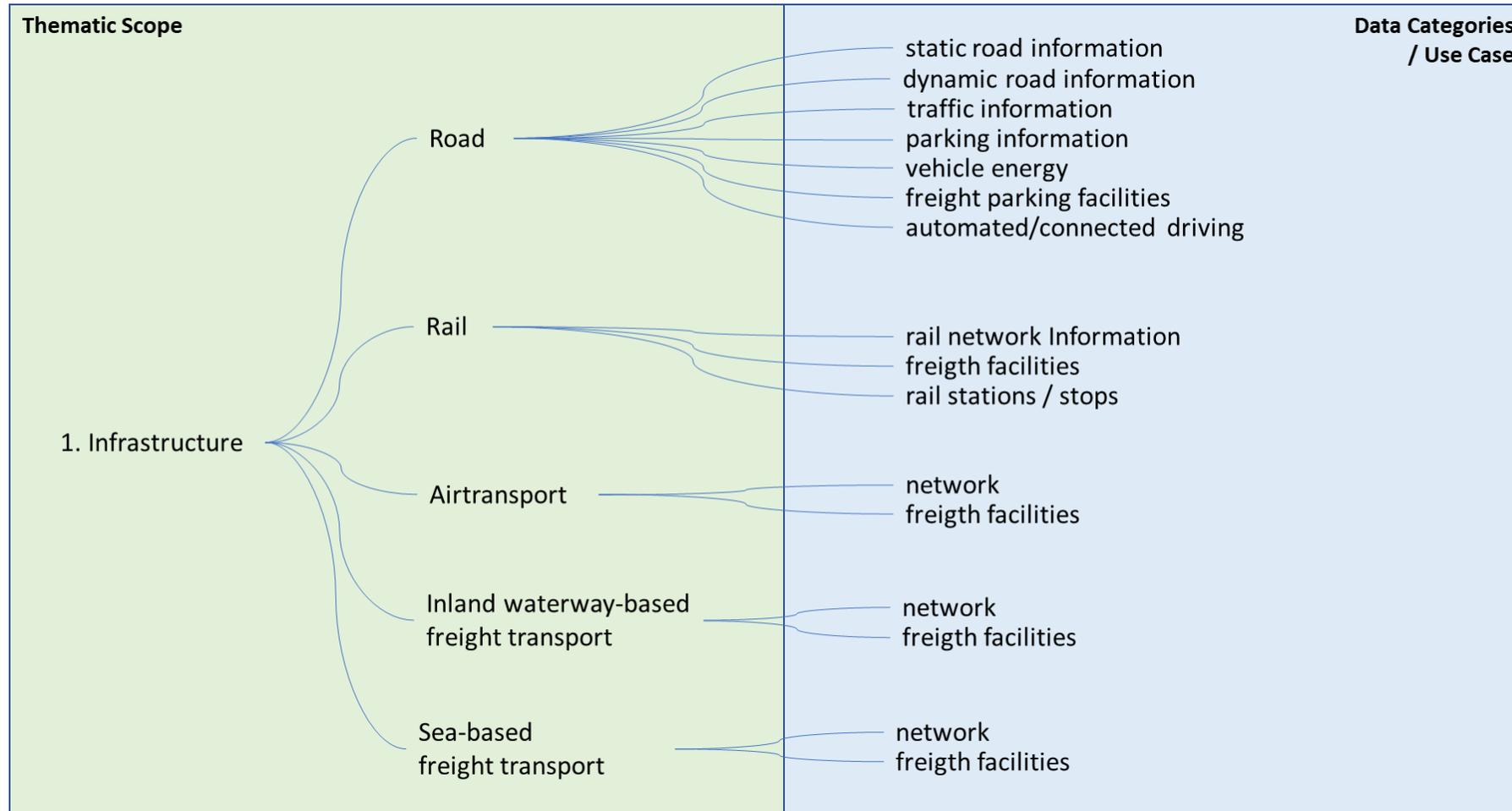
# Thematic Scope



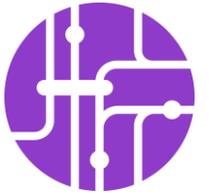


# Thematic Scope (extract)

*(basis for categorisation & gap analysis)*

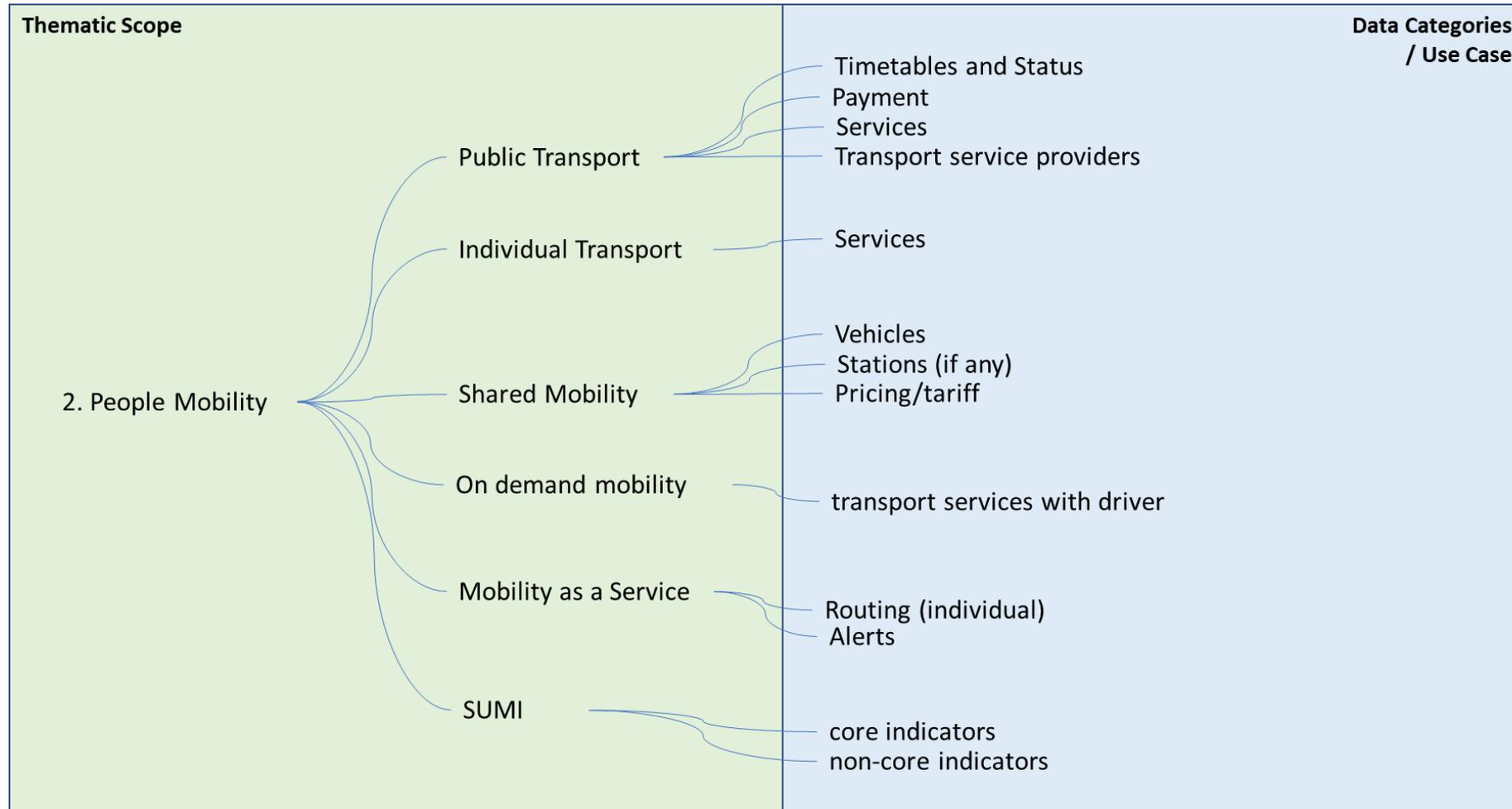


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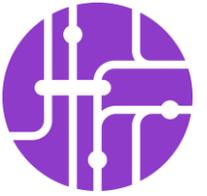


# Thematic Scope (extract)

(basis for categorisation & gap analysis)



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# Stakeholder Participation

- Distributed a survey to find further data ecosystems:
  - NAPCORE
  - EMTA
  - IDSA regional Hubs
  - ERTICO
  - DTLF
  - MaaS Alliance
  - ALICE
  - POLIS
  - UITP

## Survey on existing mobility & logistics data platforms and ecosystems

**Laying the foundation for a common European Mobility Data Space:** The PrepDSpace4Mobility project, funded by the European Commission, aims to lay the foundation for a secured and controlled way of sharing mobility data across Europe. (More information about the project can be found here: <https://mobilitydataspace-csa.eu/>)

As a first step, the project aims to provide an overview over existing initiatives feeding into an **inventory** of existing mobility data ecosystems in Europe. **Here is where we need your support:** Please share with us your knowledge about existing private and public data platforms, data spaces and ecosystems!

We are looking for existing, productive platforms and ecosystems (or those becoming functional in the near future), both public and private, that support the distribution and sharing of mobility or logistics related data. This includes data on passenger transport, traffic, transport infrastructure and freight as well as service-related data, regional as well as global data.

If you are familiar with such initiatives, please provide your contact information and copy the platform-description part for each platform that you know of.

All personal data collected will only be used for the purpose of the PrepDSpace4Mobility project and managed in compliance with the General Data Protection Regulation (GDPR) (see our privacy policy [here](#)). If you would like to receive additional updates on our activities, including expert workshops and stakeholder forums, please subscribe via [our website](#).

Your contact information:	
Full name:	
Email:	

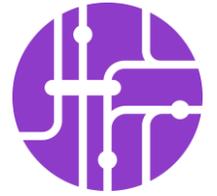
**Platform/Data Ecosystem information** (please copy this part for each platform you want to introduce to the project.)

<b>What is the name of the platform/ecosystem?</b>	
<b>What do you know about the platform/ecosystem (content, access, components, governance, ...)?</b>	
<b>Where can we find more information?</b>	
URL:	
Contact person or email:	
Other:	
<b>Do you have a recommendation for a person we should contact for information?</b>	
Contact person name:	
Contact person email:	



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# Inventory of mobility and logistics data ecosystems

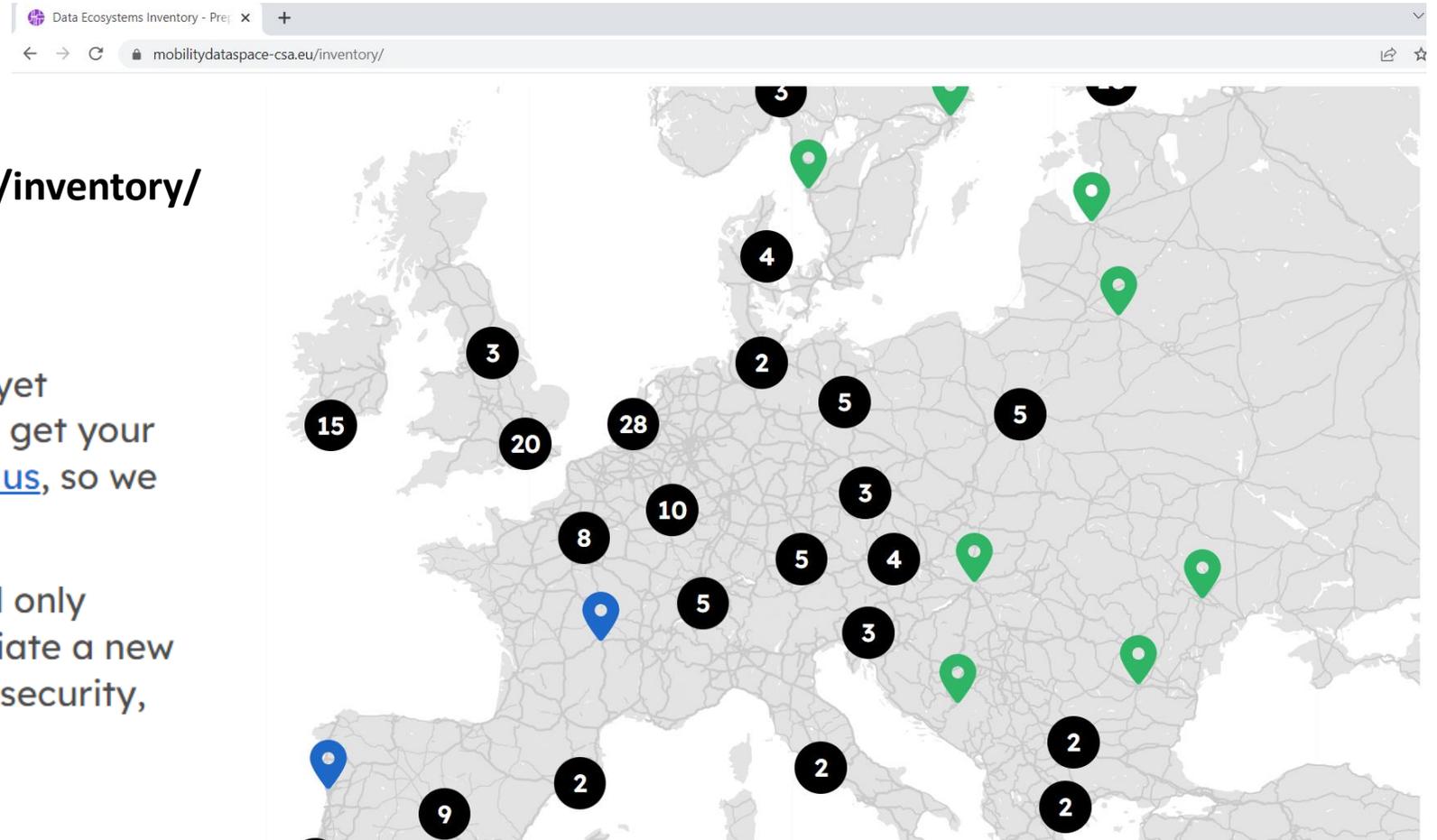


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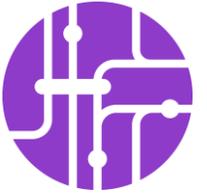
## MISSING YOU?

Are you a data ecosystem and not yet represented on our map? Or did we get your information wrong? [Please contact us](#), so we can resolve open issues.

Together we can achieve more. And only together we will be able to help initiate a new era of data sharing based on trust, security, and sovereignty.



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# PrepDSpace4Mobility

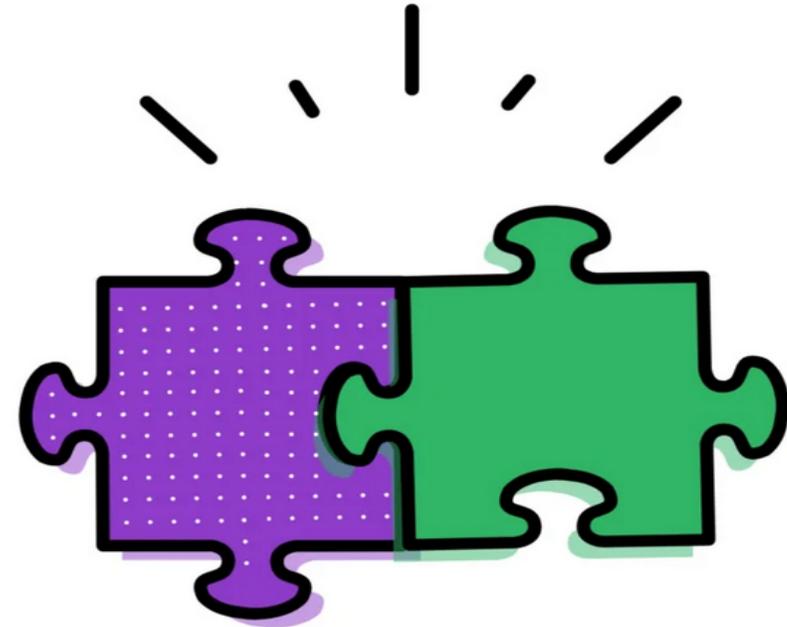
## Specification of common building blocks

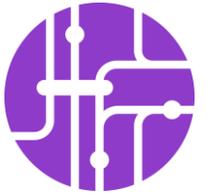
### FINDING COMMON GROUND

In addition to analysing the European data landscape, PrepDSpace4Mobility aims at finding common ground among existing and new data related initiatives – here is how:

- ✓ Analysing gaps and overlaps of existing private, public, or industrial data sharing initiatives
- ✓ Exploring suitable frameworks for securely sharing and managing data exchange across Europe
- ✓ Proposing common building blocks to build up on in coordination with engaged stakeholders
- ✓ Ensuring alignment with the European Data Spaces Technical Framework

More information about the building blocks will be published in June 2023.

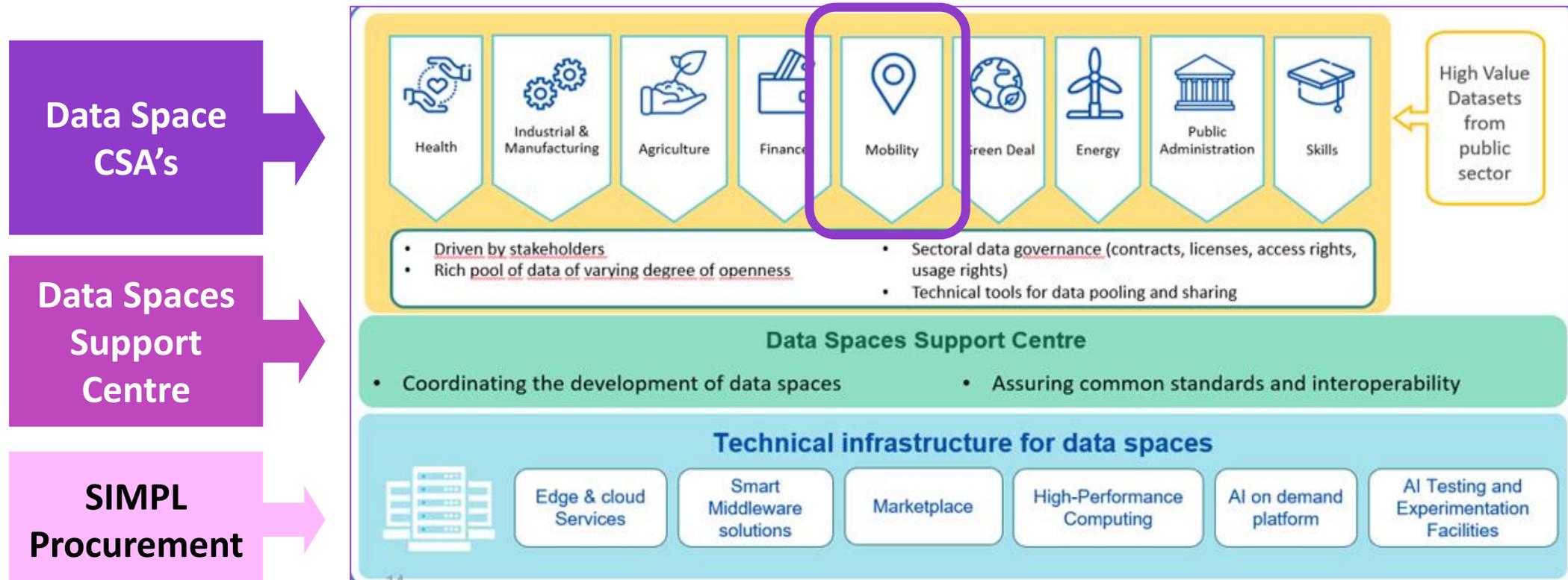




# PrepDSpace4Mobility

## Within the broader EU perspective

### Digital Europe Programme towards Deployment





# Observations

## Duality in (European) initiatives: generic and specific

Many European initiatives are being undertaken to support the development and deployment of federative data sharing. From a high-level perspective, these initiatives can be categorised into:

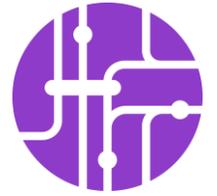
- **Generic initiatives**, aiming at basic federative data sharing capabilities **applicable to and over multiple sectors** and application areas.
  - Generic initiatives may offer business value for society as a whole but requires broad adoption and alignment
- **Specific initiatives**, targeting a specific sector and / or a specific application area and **providing domain-specific data sharing** and value adding functionalities.
  - Specific initiatives may offer business value for a specific sector or application area through targeted development

Generic vs specific requires scoping of  
PrepDSpace4Mobility

This duality in generic and specific initiatives **leads to necessity** for defining the basic assumptions and scoping for the PrepDSpace4Mobility CSA.



# PrepDSpace4Mobility Approach



- Mobility and logistics are cross-sector and cross-border by nature:
  - Interoperability between geographical mobility data space initiatives, e.g. cross-border
  - Interoperability with other sectoral data space initiatives (cross-sector), e.g. Tourism, Smart Industry, ....

**Cross-sector and cross-border  
alignment are key**

- Many EU building block development and deployment initiatives have been / are being undertaken:
  - Both in development (reference architecture) and in deployment
  - Both generic data spaces and mobility data space specific

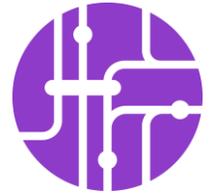
**Interoperability convergence is needed,  
not further divergence**

- Limited role of PREPDS4MOB in defining generic building blocks for inter data space interoperability:
  - May even be contra-productive i.r.t. overarching EU Data Space deployment initiatives, esp. DSSC, SIMPL, EDIB,...
  - Role of PREPDS4MOB is to identify: (1) mobility specific building blocks, and (2) mobility specific requirements on 'generic' data space building blocks



# PrepDSpace4Mobility

## Relation to the work of the Data Spaces Support Centre

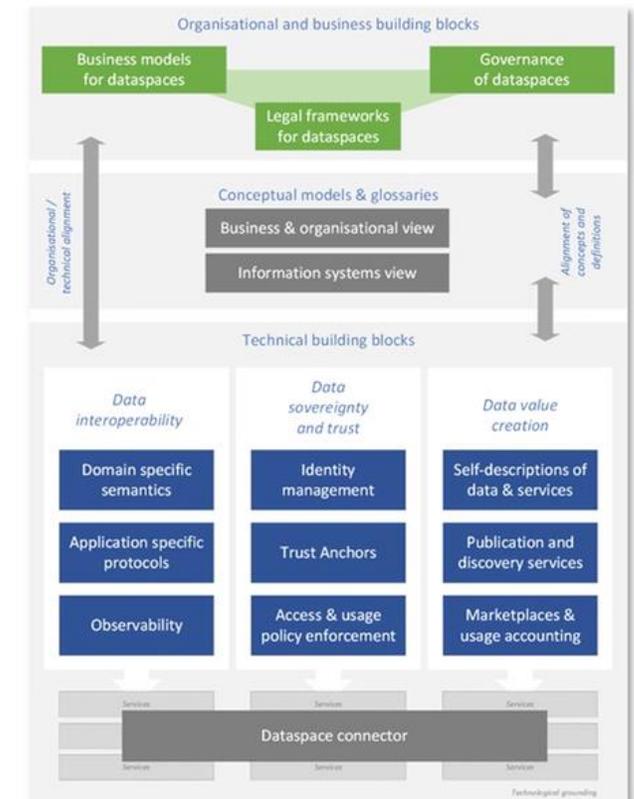


Data Space Building block is a basic unit or component that can be implemented and combined with other building blocks to achieve the functionality of a data space.

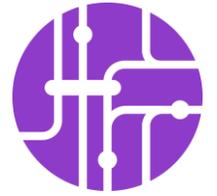
- Data spaces align to EU values, regulation, they have governance and business model and are standardized and interoperable structures.
- In order to scale, and to serve emerging European data economy, data spaces **need common building blocks providing a way to construct data spaces both in technical and non-technical manner.**



- The DSSC is identifying common Building Blocks for interoperable Data Spaces
- Collecting Functional Requirements on Technical, Organisational Business and Legal Level
- Serving as a Base for the Creation of the Data Spaces Blueprint



# Identification of common building blocks



## The PrepDSpace4Mobility questionnaire

A comprehensive questionnaire is available to collect further data from data ecosystems

- Identify gaps & overlaps
- Identify building blocks

The questionnaire consists of 4 parts, which may be filled-in independently:

- Data source provided:
  - <https://eiturbanmobility.typeform.com/to/Hwn0BAIs>
- Data sources needed:
  - <https://eiturbanmobility.typeform.com/to/PR7FRGSY>
- Existing data sharing initiatives:
  - <https://eiturbanmobility.typeform.com/to/M8t5nuFg>
- EMDS requirements and building blocks:
  - <https://eiturbanmobility.typeform.com/to/eJ1qsAFF>

**For your input to be taken into account for the EMDS, please take time to fill-in the questionnaire**

4. Should the mobility dataspace support the transformation of the data formats adopted for data exchange within the data space, for example, between IoT protocols (e.g. CoAP, MQTT), database protocols (e.g. SQL, Cypher), and API protocols (e.g. RESTful services)?  
 No  
 Yes

How would you rate the importance of this Building Block?  1 (quite low)  2  3  4  5 (very high)

Trust

5. Does a mobility dataspace need an identity management (IM) for all actors of your data sharing environment (e.g., participants, data, applications)?  
 Yes  
 Yes, but not for all actors  
 No  
Remarks and suggestions on IM solutions (e.g. preferred policies and/or technologies, critical lacking features, ...)

How would you rate the importance of this Building Block?  1 (quite low)  2  3  4  5 (very high)

6. Should a mobility data space enable the implementation of data sharing policies (i.e., access and/or usage policies) for accessing the data (e.g., regarding security, integrity, lifetime, privacy, competition)?  
 No  
 Yes  
Please add remarks and suggestions on IM solutions (e.g. preferred policy description language, policy-compliant usage tracking, known deficits of IM concepts, ...)

How would you rate the importance of this Building Block?  1 (quite low)  2  3  4  5 (very high)

7. Should a mobility data space implement a building block enabling trusted data exchange?  
 No  
 Yes  
Please add remarks and suggestions on Trusted Data Exchange solutions (e.g. preferred credential/attestation concepts, verification and validation procedures, known deficits of Trusted Data Exchange concepts, ...)

How would you rate the importance of this Building Block?  1 (quite low)  2  3  4  5 (very high)



# PrepDSpace4Mobility

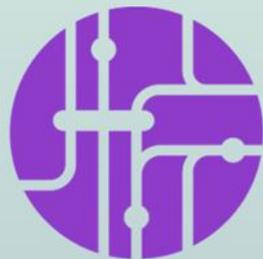
## Main questions on the EMDS (for break-out sessions)



1. What type of problems are you dealing with related to data exchange in your community?  
What type of platforms do you use or collaborate with to aid in the problems you have identified?
2. What are the interoperability standards and protocols required for data sharing within and across domains and, potentially, across different sectors?
3. What gaps do you identify that are necessary for trusted and secure data exchange amongst stakeholders?
4. What are your expectations of a common EU mobility data space?
5. What are the necessary functionalities and or building blocks that are needed (to be supported in a common EU Mobility Data Space)?

**For CCAM  
For Logistics and Freight  
For Urban Mobility  
For Sustainable & Clean Comm.**





# PrepDSpace4Mobility

Get in touch and stay informed!



PrepDSpace4Mobility



[www.mobilitydataspace-csa.eu](http://www.mobilitydataspace-csa.eu)



[PrepDSpace4Mobility@acatech.de](mailto:PrepDSpace4Mobility@acatech.de)



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