



PrepDSpace4Mobility

First Public Stakeholder Forum

28 February 2023



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Your Hosts Today



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Our Agenda

16:00 – 16:05

Welcome



16:05 – 16:15

Common European mobility data space: vision and policies



16:15 – 16:25

Interoperability of future data spaces



16:25 – 16:35

Q & A



16:35 – 16:40

PrepDSpace4Mobility: laying the foundation for a common European mobility data space



16:40 – 17:10

Mapping European data ecosystems



17:10 – 17:20

Q & A



17:20 – 17:30

What's coming next and closing

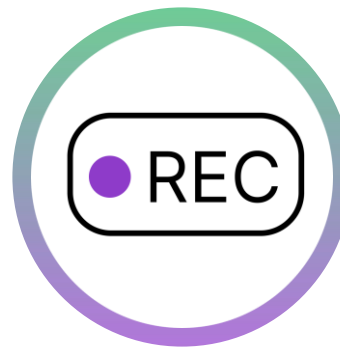




Ground Rules



State name and organisation



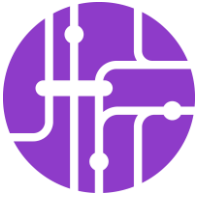
Meeting is recorded



Use Q&A during presentation



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The bigger picture: European Commission strategies

Kristóf Almásy (DG CONNECT) and Dimitrios Gkatzoflias (DG MOVE), European Commission



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common European mobility data space: vision and policies

PrepDSpace4Mobility Public Stakeholder Forum – 28/02/2023

Kristóf Almásy – Policy officer, DG CNECT E4
Dimitrios Gkatzoflias – Policy officer, DG MOVE B4

At the crossroads of two EU strategies

Data Strategy



Establish a single market for data
Enable data sharing and
establish fair and clear rules on
data use and access.

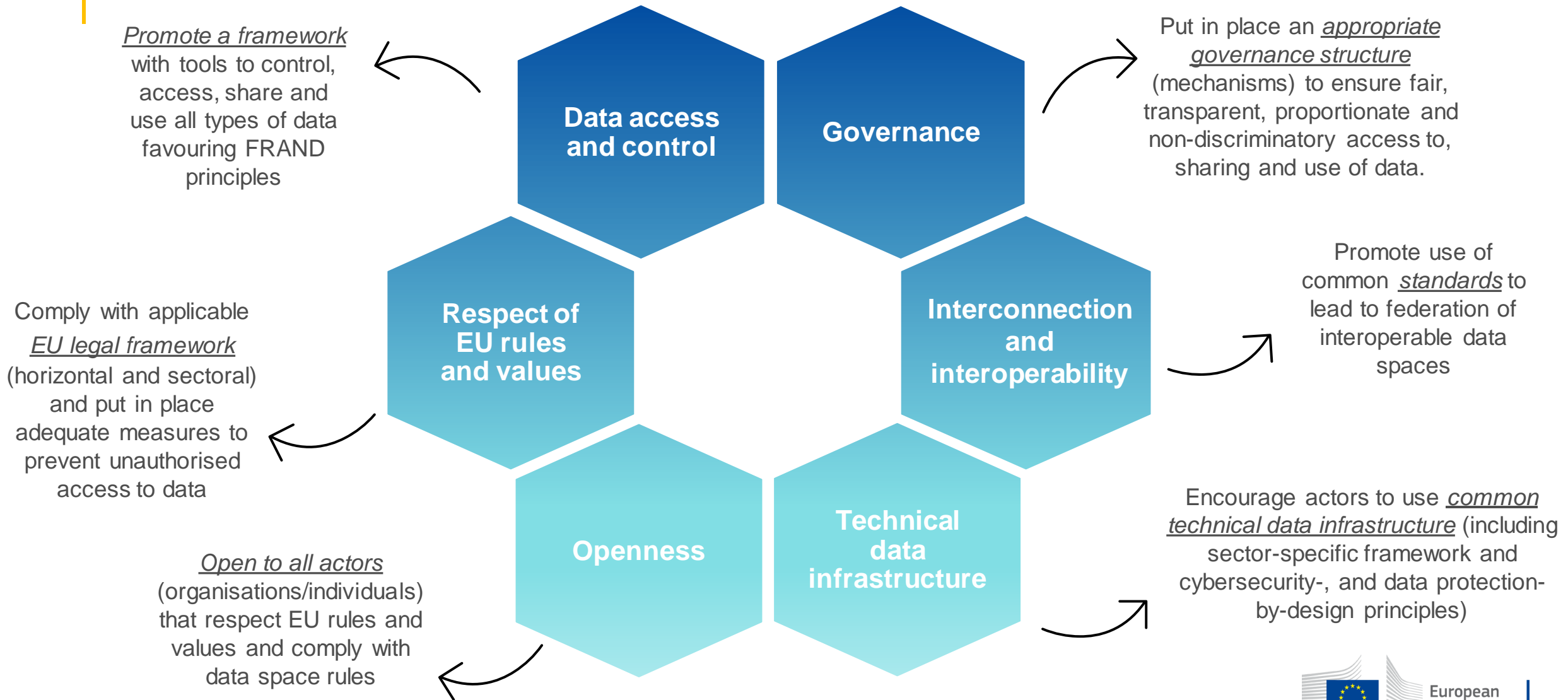
Sustainable and smart mobility strategy



Ensure that the EU transport sector
is fit for a clean, digital and modern
economy

→ A **common European mobility data space**
facilitating access, pooling and sharing of data from existing
and future transport and mobility data sources

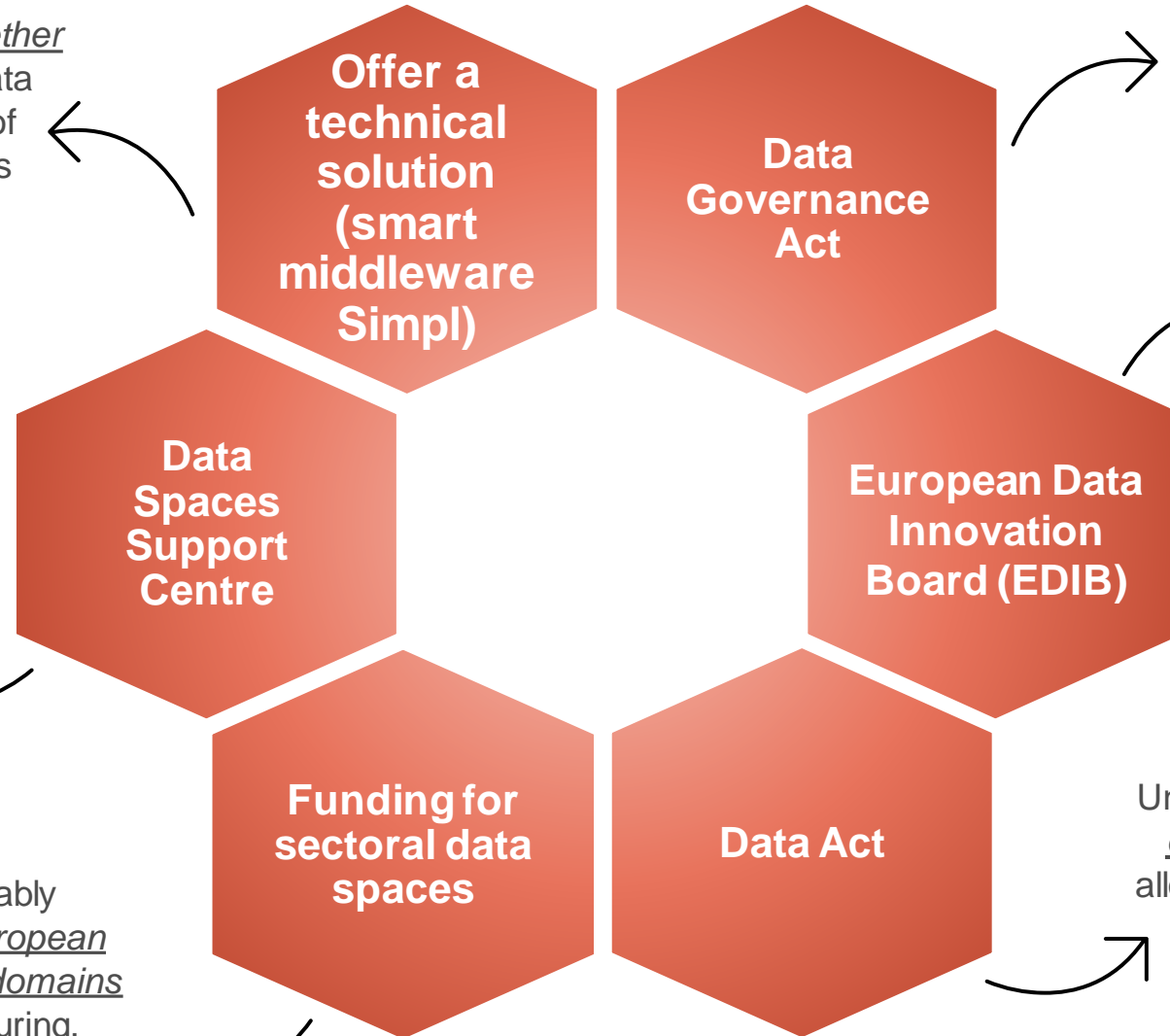
Design principles for common European data spaces



The EC's role in supporting the creation of data spaces

Bring stakeholders together
with a common EU data policy, promote use of data space guidelines

- EU project to
- *coordinate* data space initiatives
 - Identify *common requirements*
 - Support the work of the EDIB
 - Support data space initiatives and knowledge exchange



Increase trust in data sharing (neutral data intermediaries, i.e., the orchestrators of the data spaces)

Support the Commission in:

- *Issuing guidelines* to facilitate the development of the common European data spaces
- Identifying the relevant standards and interoperability requirements for *cross-sector data sharing*

EU financial contribution (notably DIGITAL) to *deploy common European data spaces in strategic sectors/domains* e.g. mobility, energy, manufacturing, tourism Green Deal & smart communities

Unlock the potential of the EU's *industrial data* (IoT data), ensure fairness in the allocation of data value among the actors of the data economy

Objectives of the common European mobility data space (1/2)



1. **Identify crucial data** and **increase their availability** to support services considered essential across the EU's territory, covering themes from sustainability to multimodality.



2. **Help users in the discovery of available data sources**, providing tools for the user to understand the data quality and related access conditions.



3. Facilitate data access and re-use through the modal and cross-modal harmonisation of sharing conditions in a **fair, transparent, proportionate and non-discriminatory manner**.

Objectives of the common European mobility data space (2/2)



4. **Enable technical, organisational and legal interoperability** for data access, re-use and data sharing between public and private actors.



5. **Optimise data collection and reduce administrative burden**, through identifying gaps and overlaps in existing data collection arrangements and making recommendations for respective adjustments in sectoral legislation.



6. **Facilitate interoperability with other common European data spaces** and allow data sharing and re-use among those in line with new and emerging EU data-related legislation.

Examples of value-added use cases



Increasing the efficiency of the logistics sector at EU level by combining data from different (modal) sources



Cities across the EU can combine data from the mobility, energy and tourism data spaces in order to implement **sustainable urban mobility plans (SUMPs)**



Implementation of **urban vehicle access regulations (UVARs)**, which are essential to reduce emissions and traffic congestion in cities and regions



Cross-border passenger & freight **multimodality** can be boosted by providing a framework on data sharing conditions, and through the integration of information (e.g. real-time schedules, disruptions) and access to tickets in all transport modes



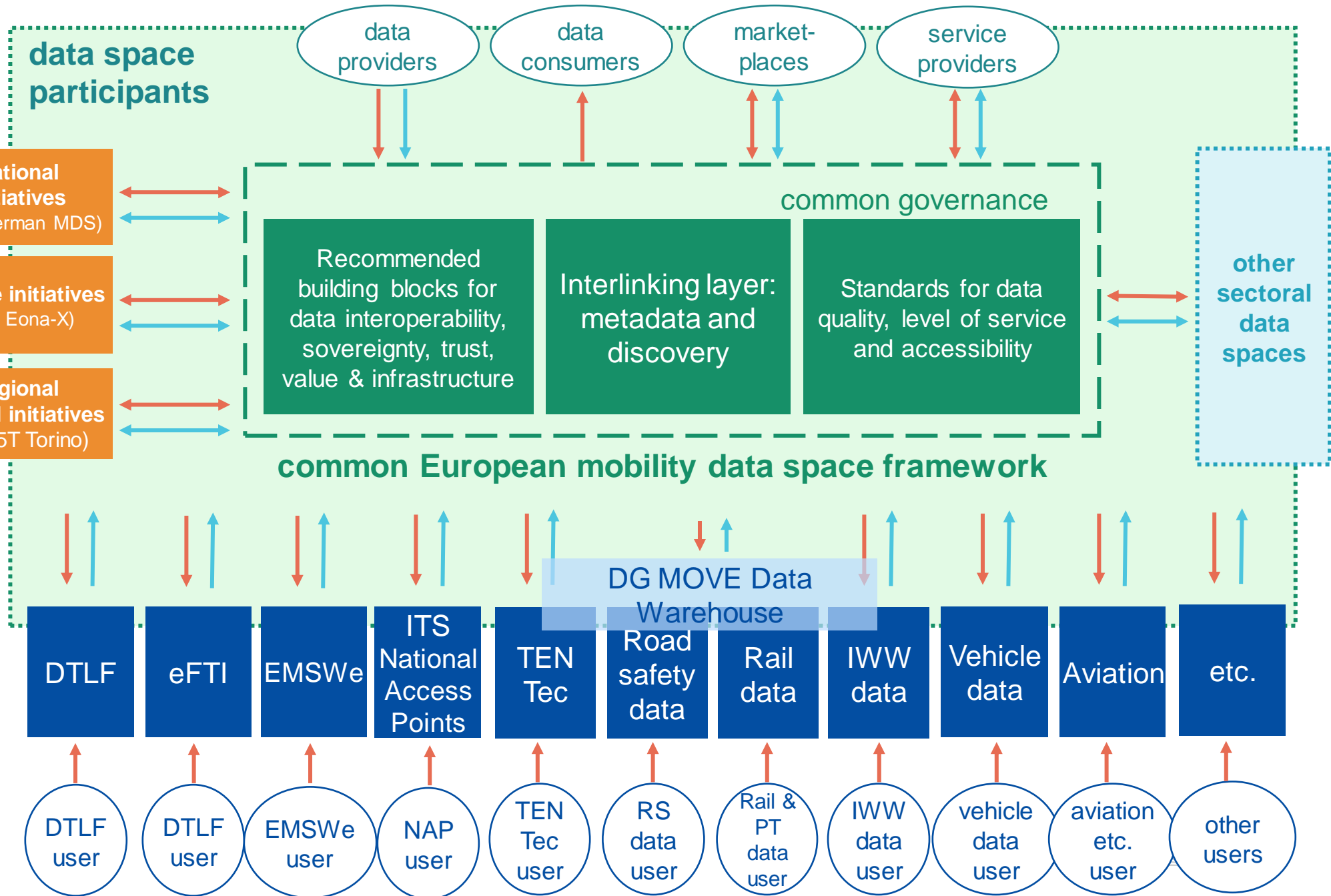
Facilitate the access to **electromobility** data at EU level and enabling services to inform users about recharging locations, prices, availability and overall characteristics of infrastructure

Initial vision, open to changes

mobility data ecosystems, initiatives and platforms

EU mobility data domains and initiatives

→ data access/sharing
→ metadata flows



Actions supporting the common European mobility data space



Preparatory action Digital Europe Programme

12 months coordination & support action – started 1/10/2023

- Map existing mobility data ecosystems
- Recommend first common building blocks

Deployment action Digital Europe Programme

Call closed on 24/01/2023.
Currently in Evaluation phase
Planned start Q3 2023.

- Deploy mobility data sharing use cases using common framework related to traffic and urban mobility indicators

Technical assistance Connecting Europe Facility

Technical assistance study to be launched followed by a deployment action

- Focus on the interlinking layer, further definition of building blocks and interoperability (TBC)

Building on **Data Spaces Support Centre** and **open-source cloud-to-edge middleware platform**

Initiative for a Communication



Goal: **publicly announce the objectives and proposed way forward** for the creation of the common European mobility data space.



Supported by a [Call for Evidence](#) and stakeholder input, e.g.:

- [10th Florence Intermodal Forum \(25/11/2022\)](#)
- [PrepDSpace4Mobility Workshops](#)
- [Public Workshop organised by DG MOVE \(16/02/2023\)](#)

Thank you



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Useful links

European data strategy

https://ec.europa.eu/info/strategy/priorities-2019-2024/europe-fit-digital-age/european-data-strategy_en

Sustainable and smart mobility strategy

https://transport.ec.europa.eu/transport-themes/mobility-strategy_en

DIGITAL Work Programme 2021-2022

[Work Programmes – DIGITAL \(web page\)](#) and [Main work programme](#).

Deployment call - Funding and tenders portal

[DIGITAL-2022-CLOUD-AI-03-DS-MOBILITY](#)

Staff working document on data spaces

<https://digital-strategy.ec.europa.eu/en/library/staff-working-document-data-spaces>

Consultation – Communication on common European mobility data space

[Have your say - creating a common European mobility data space](#)



Interoperability of future data spaces

Tuomo Tuikka, Data Spaces Support Centre



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The Data Spaces Support Centre

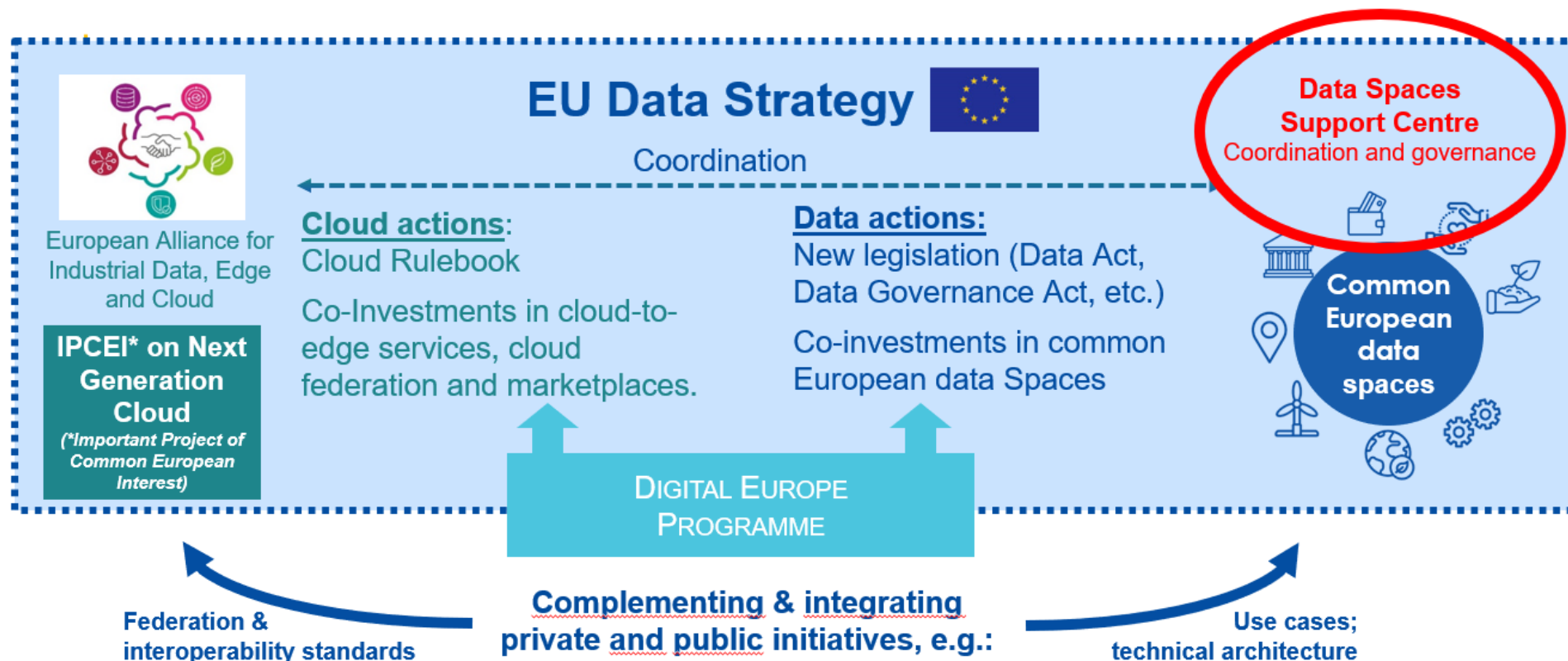


<https://dssc.eu>

Tuomo Tuikka



The European Data strategy

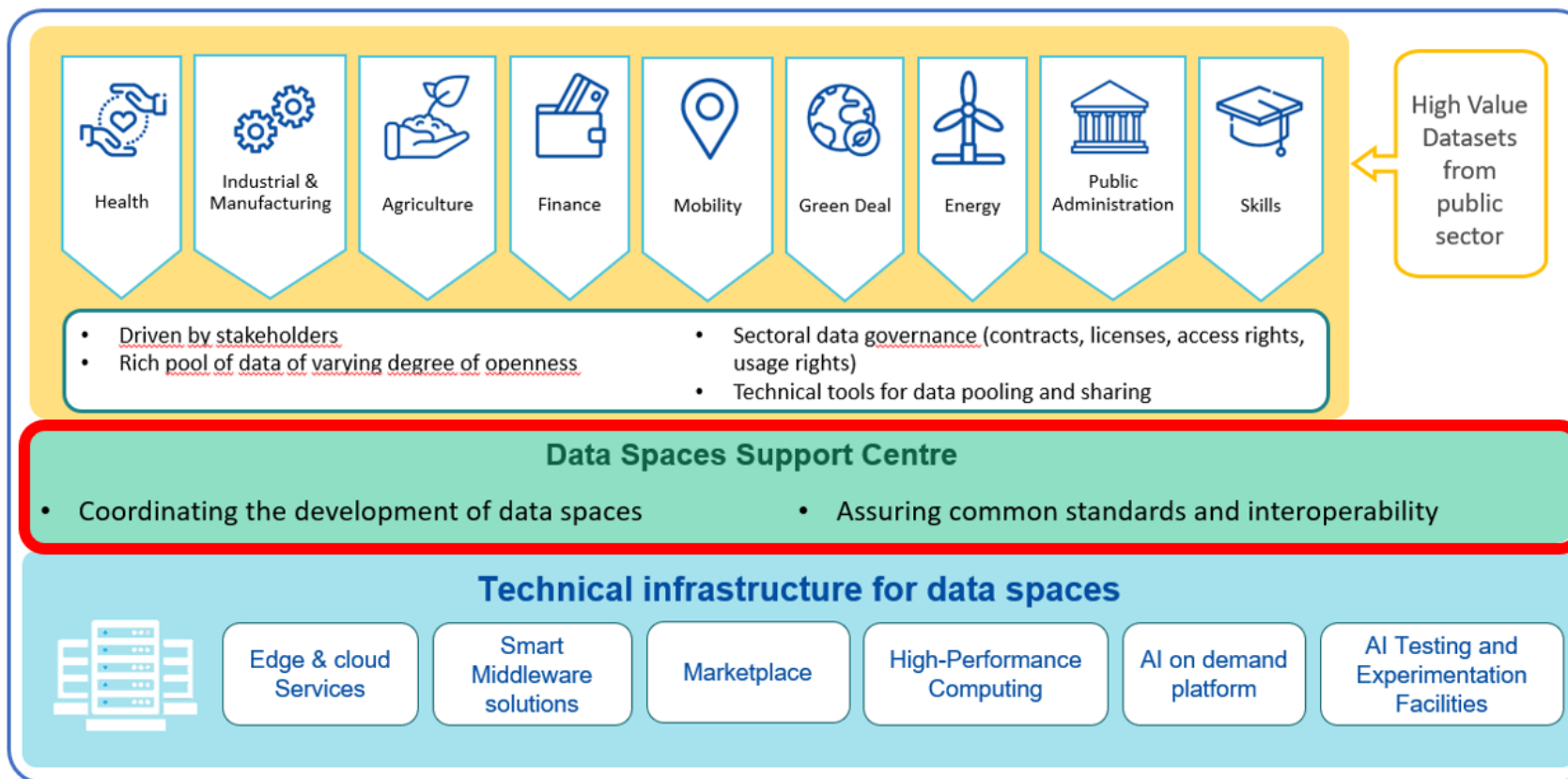


[Source: EC, DG Connect]



The Data Spaces Support Centre receives funding from the European Union Digital Europe Programme under grant agreement n° 101083412.

Common European data spaces



[Source: EC, DG Connect]

Data Space

- Decentralised and standard-based infrastructure to enable trustworthy data sharing between the data space participants.
- Data spaces may be purpose- or sector-specific, or cross-sectoral.
- Common European data spaces are a subset of data spaces within the scope of EU policies.
- *Starter-kit interim version 19.12.2022*
 - *Final release in end of March*
- <https://dssc.eu>

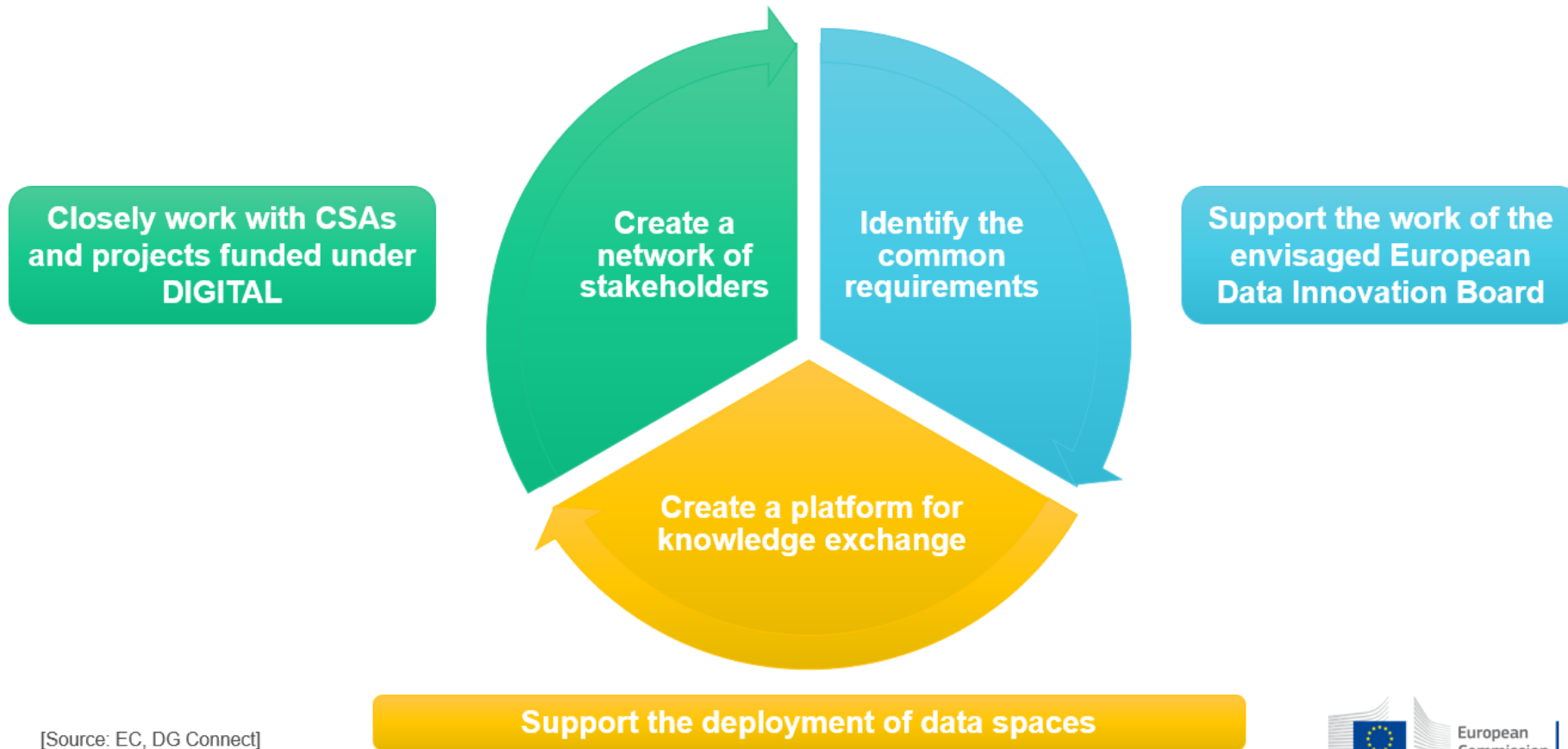


**DATA SPACES
SUPPORT CENTRE**

Interim Version

**Starter Kit for Data
Space Designers**

Data Spaces Support Centre



The Data Spaces Support Centre receives funding from the European Union Digital Europe Programme under grant agreement n° 101083412.

Data Spaces Support Centre

Mission



- The Data Spaces Support Center will:
- Enable data spaces to reach a higher flight level faster: a quick start and an accelerated scale-up.
- Provide the tools to address the basic organizational and technical matters, required by every data space.
 - This includes a blueprint, best practices, common standards and reference implementations.
- Enable dataspace to focus on their domain-specific business challenges and provide business benefits to their participants.

Data Spaces Support Centre

Mission Interoperability



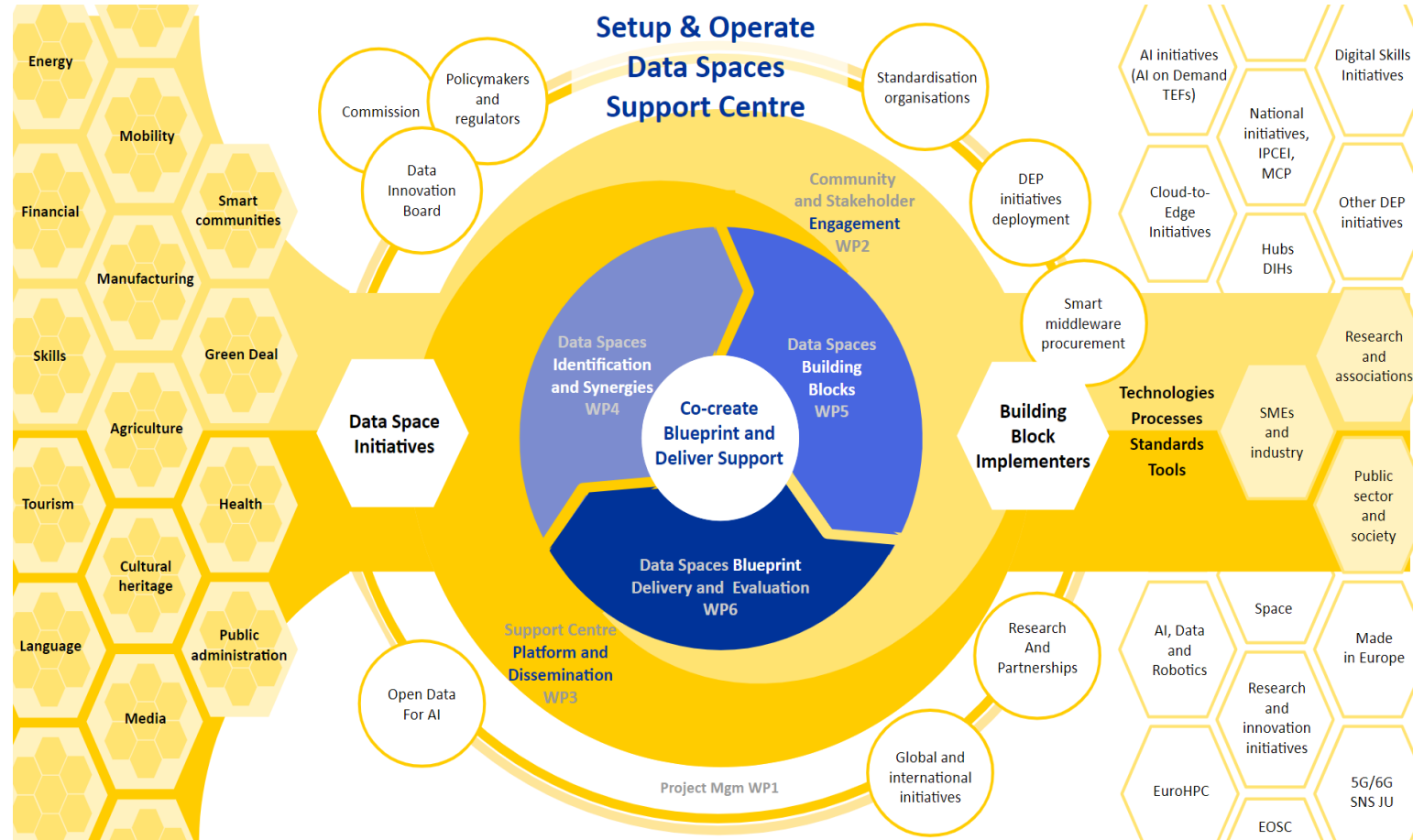
A key area of attention for the DSSC will be the interoperability between data spaces.

- Ensure that participants of one data space can also participate in other European data spaces.
- Create economies of scale and synergies on a European level.
- Can only be achieved if every data spaces conform to certain standards, which will be part of our blueprint.

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Data Spaces Support Centre

Setup & Operate



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Data Spaces Support Centre

Community and Stakeholder Engagement



Strategic Stakeholder Forum

- Think-and-do-tank to continuously deliver on the policy objectives and market needs

Community of Practice

- DEP Data Space initiatives
- Simpl / Building blocks implementers

Collaboration with relevant initiatives and Stakeholders

- Public Sector Open Data for AI and Open Data Platform, the Cloud-to-Edge infrastructure and services projects, AI initiatives, EDIHs, Hubs, Advanced Digital Skill initiatives, EuroHPC, Research projects (H2020, HE), space programmes, partnerships, Standardisation Bodies and organisations, National initiatives, Industry and SME associations, international initiatives, etc

Collaboration with EDIB and Policymakers

- EDIB (European Data Innovation Board)
- Relevant policymakers and establishes a co-creation approach with them to enable a steadily and potentially iteratively evolving regulatory and policy environment for the data spaces

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Data Spaces Support Centre

Consortium



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Data Spaces Support Centre

Associated and collaboration partners



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Q&A

Thomas Geier, EMTA



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PrepDSpace4Mobility: laying the foundation for a common European data space

Josefine Morgan, acatech



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Our project at a glance

- 17 partners (technical & domain expertise)
- 12 months (Oct 2022 – Sep 2023)
- EUR 1 million
- Main deliverables:
 - Inventory of mobility and transport data ecosystems
 - Building blocks for a future common European mobility data space

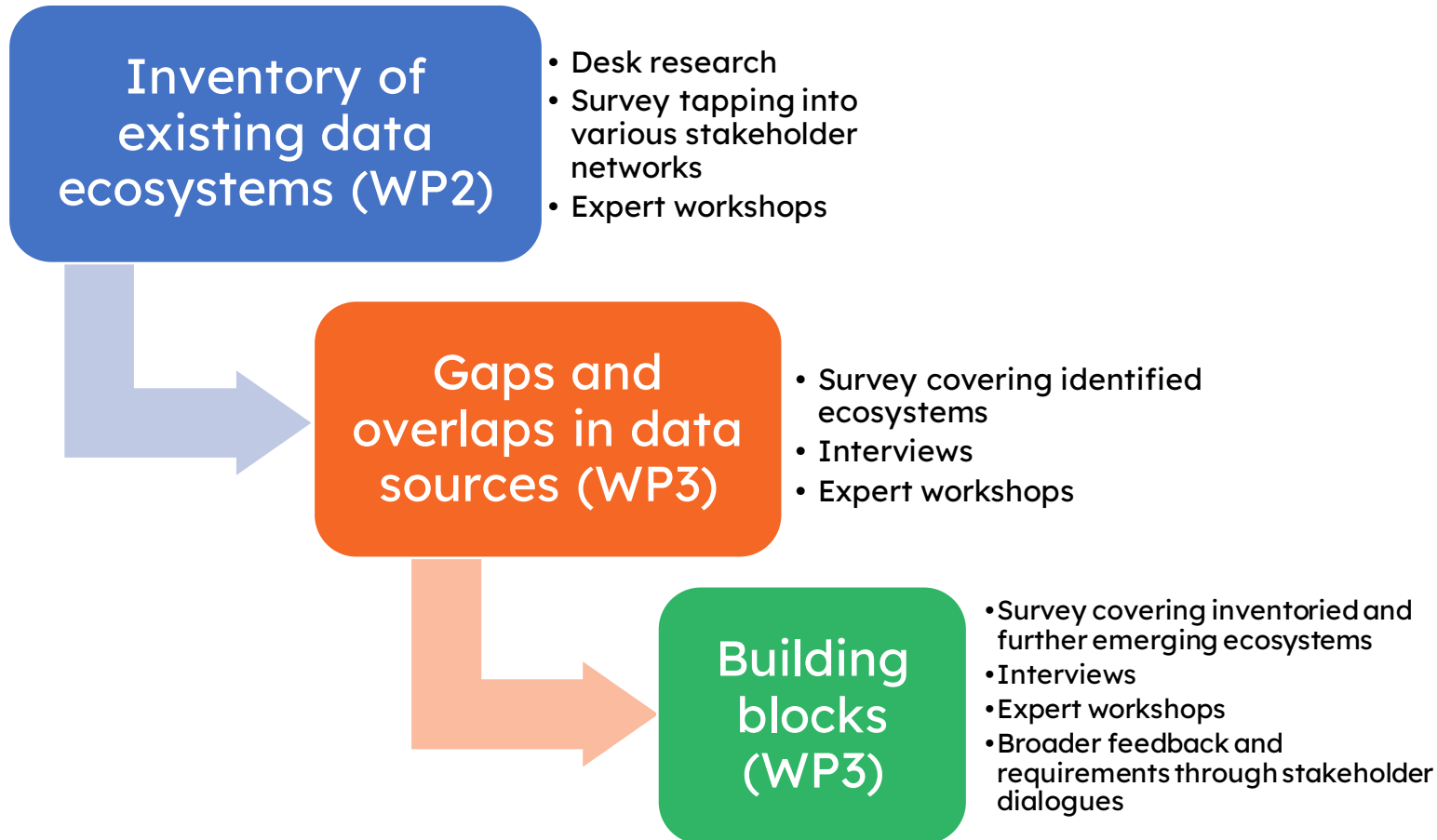


Associated Partners



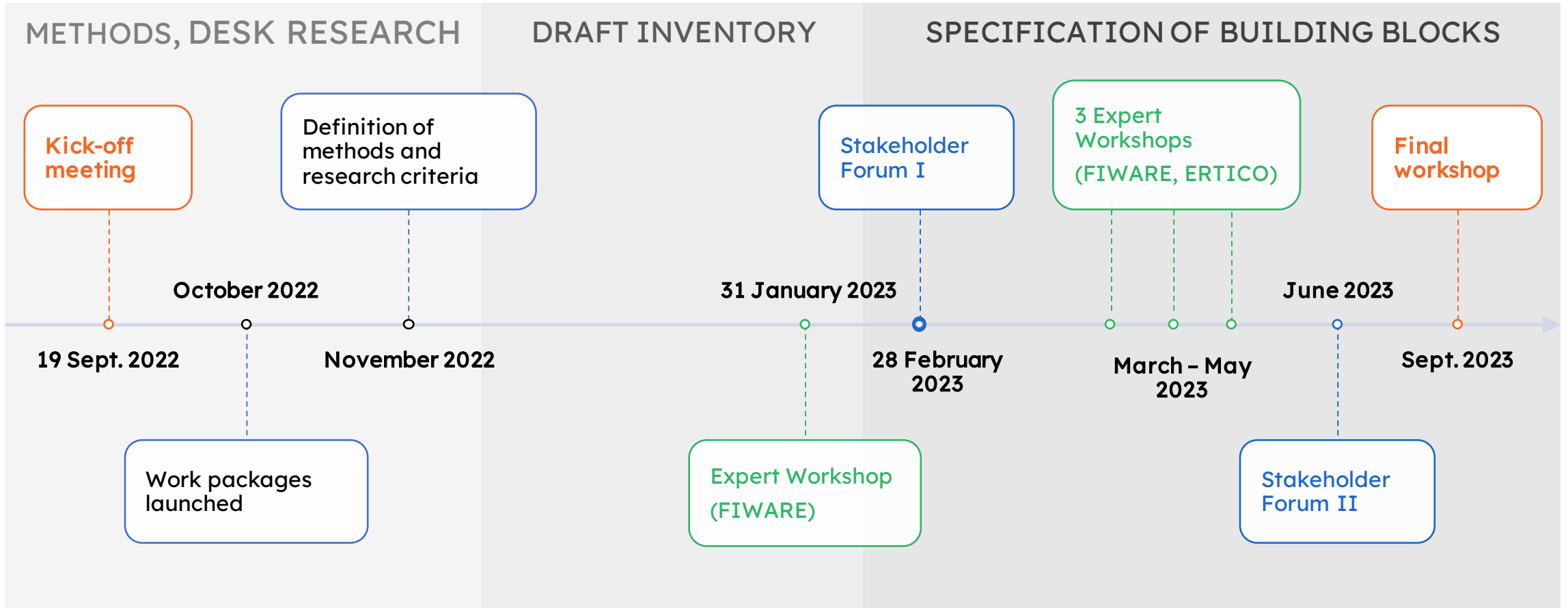
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Our approach





Timeline



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Mapping European data ecosystems

Sebastian Pretzsch, Fraunhofer IVI



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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

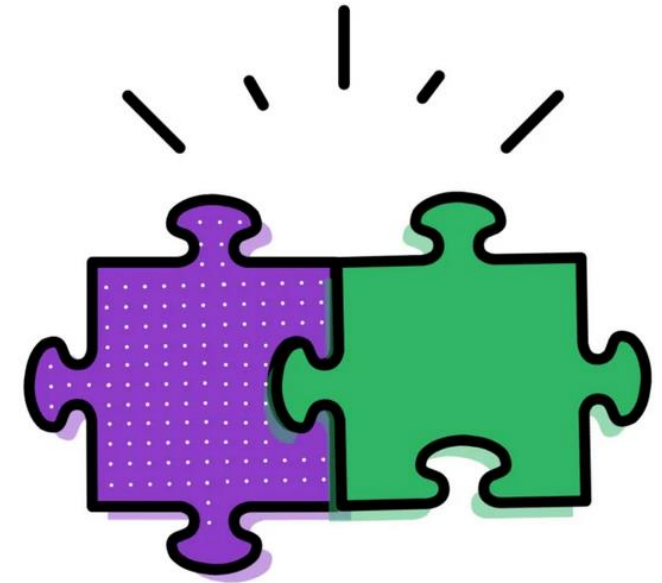


Inventory of mobility and logistics data ecosystems



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

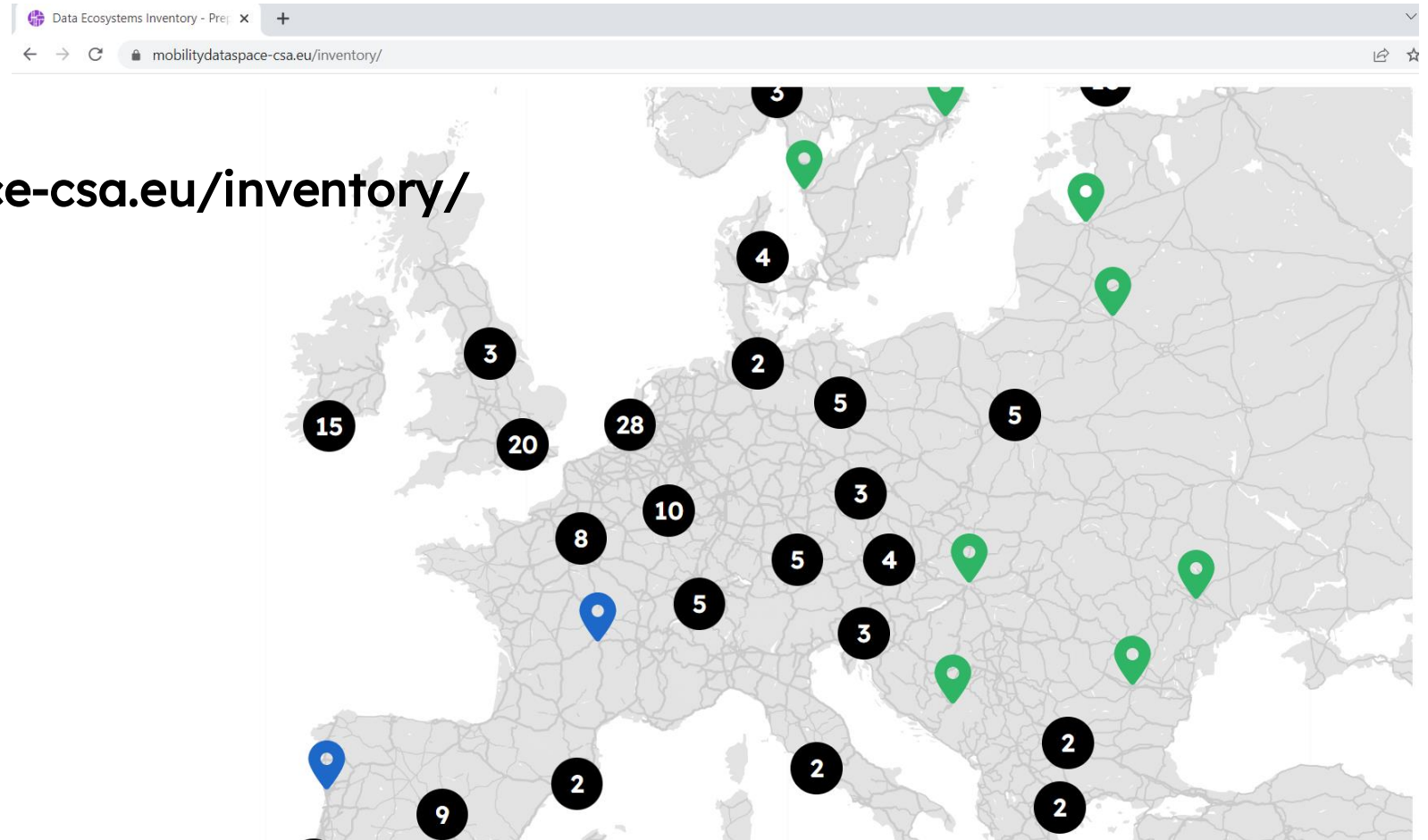
- Analysis of gaps and overlaps of existing private, public, or industrial data sharing initiatives (geographic, thematic)
- Identifying common and domain specific building blocks as well as linking capabilities and integration points
- Engagement with stakeholders



Inventory of mobility and logistics data ecosystems



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



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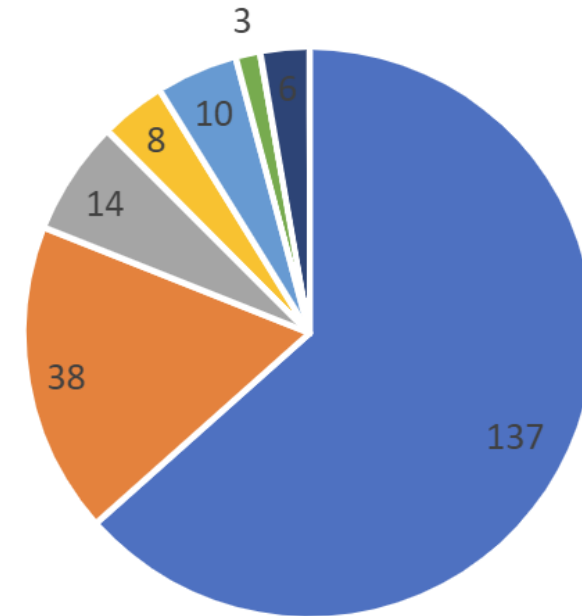
Inventory of mobility and logistics data ecosystems



Wie have currently

- 387 inventory entries
- approx. **223** match our criteria and are online on the map

Platforms by Traffic Mode



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



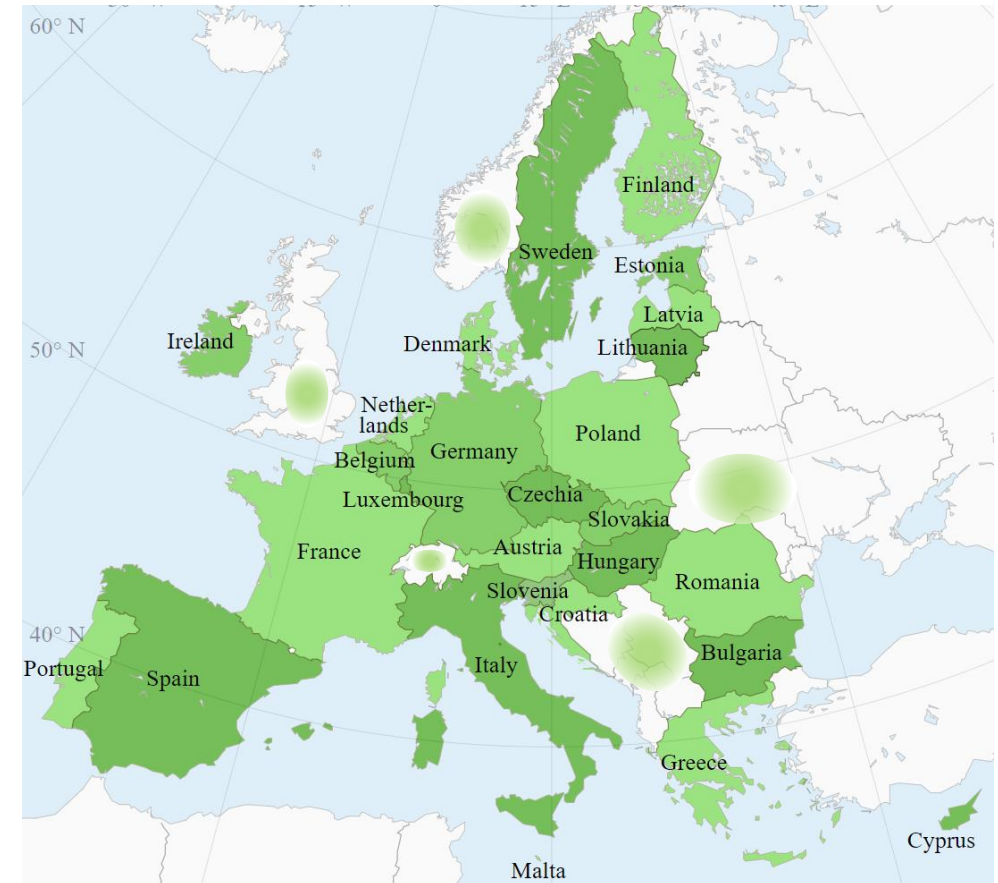


Relevance Criteria and Scope

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

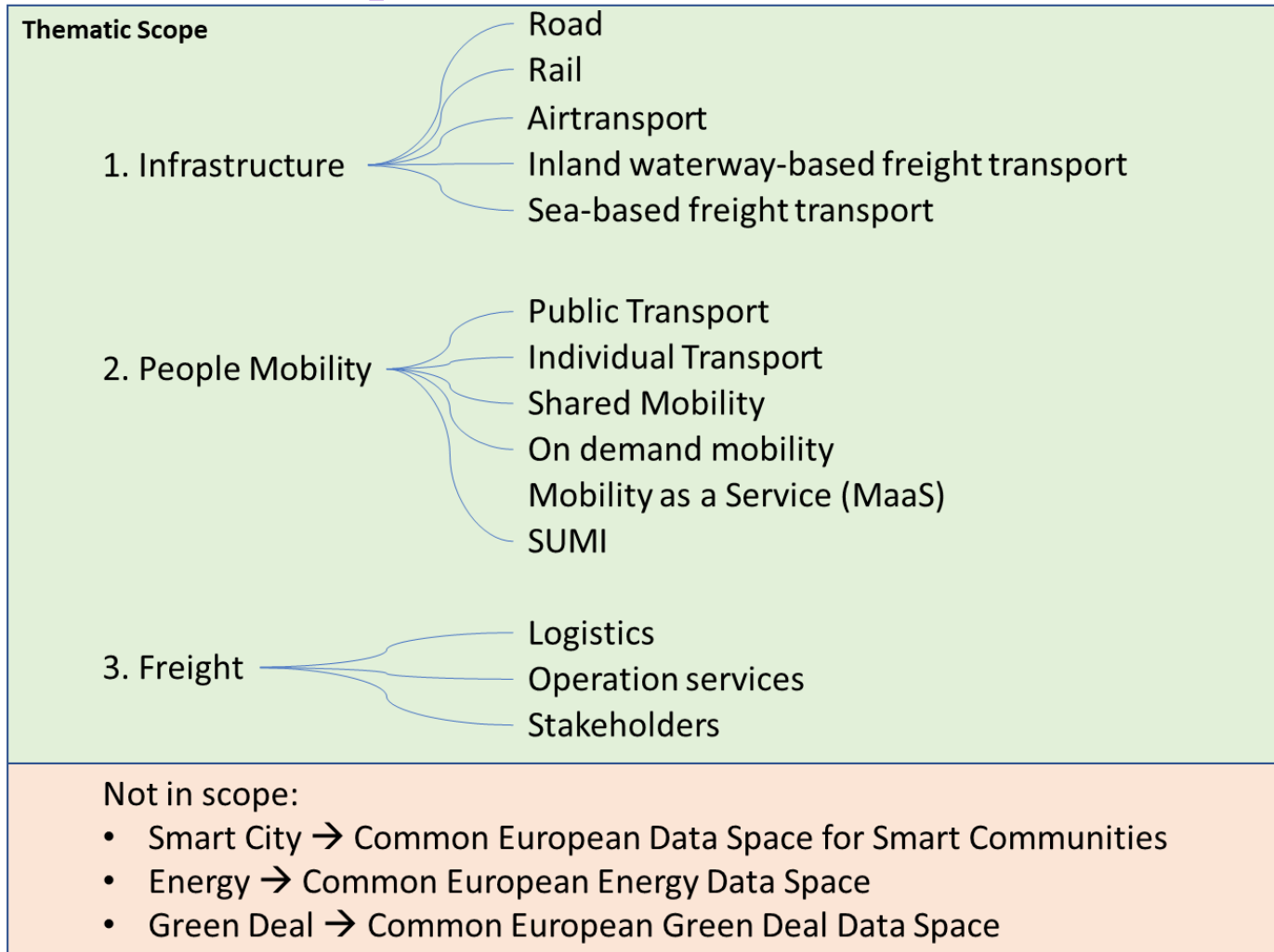
- focus is one-to-many data provision / sharing / consumption between participants
- multiple data providers or participants
- multiple data or service offers
- **is in (near) productive operation**
- Within a defined **thematic** and **regional** scope

regional scope:





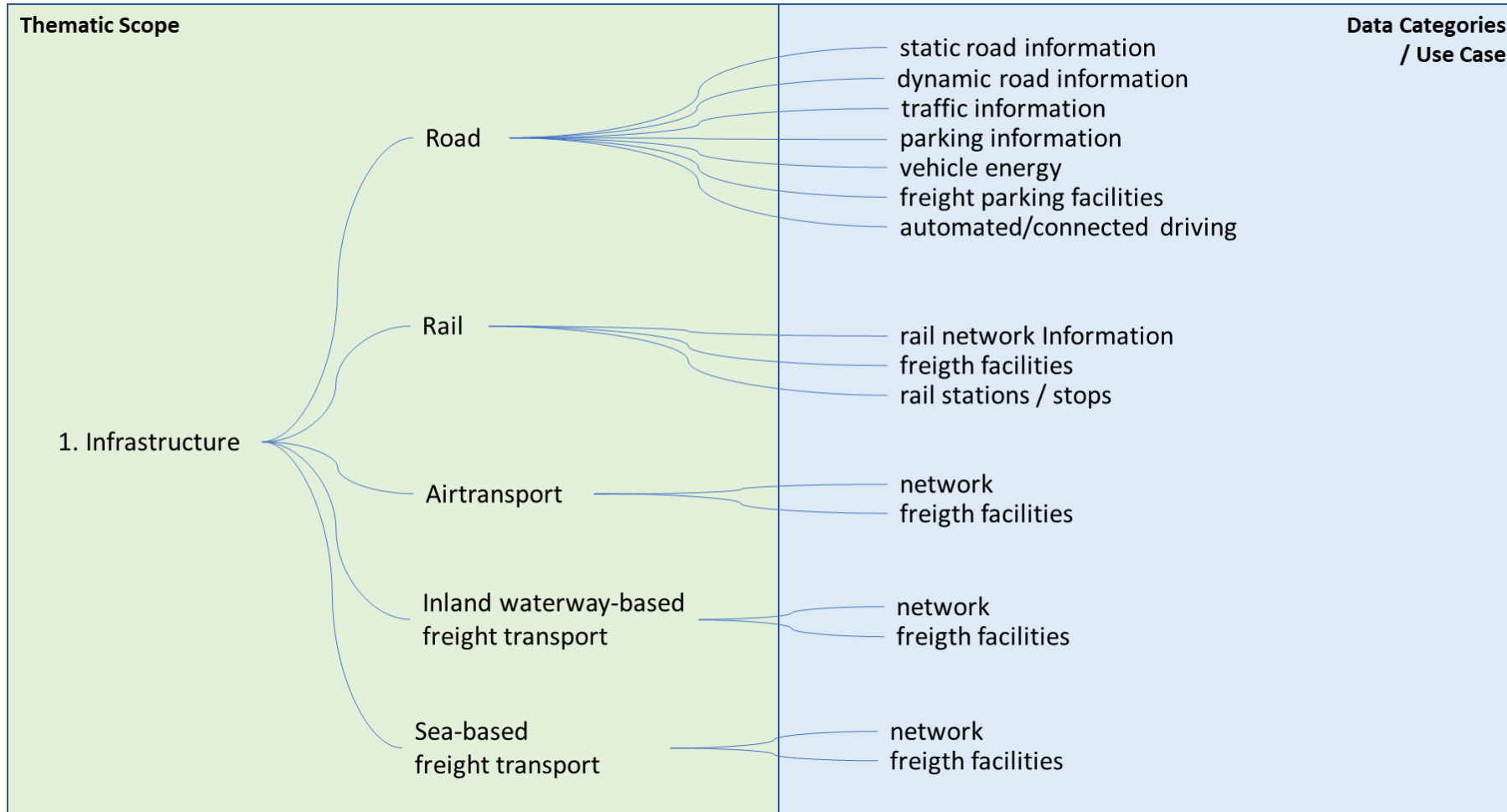
Thematic Scope





Thematic Scope (extract)

(basis for categorisation & gap analysis)

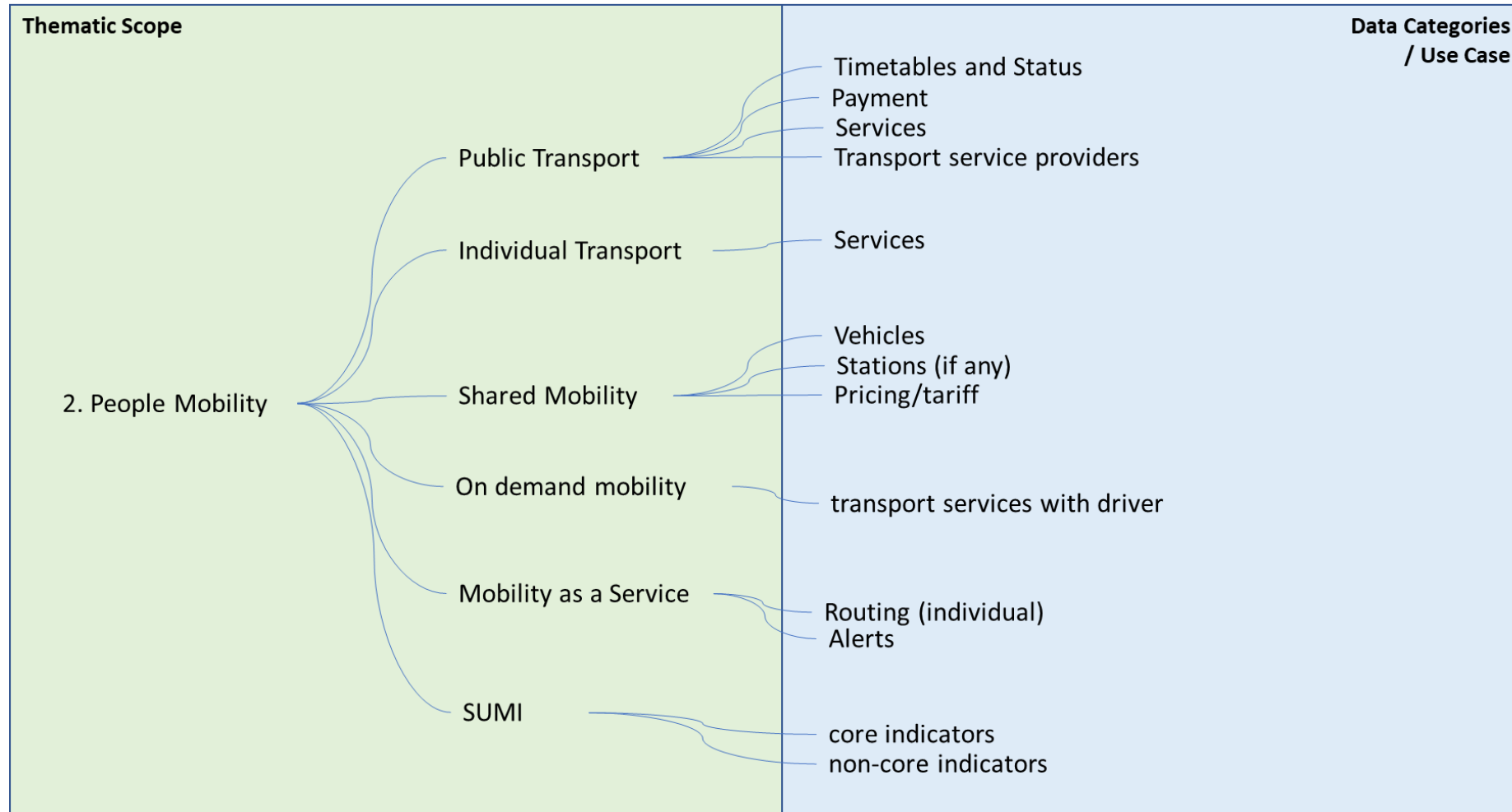


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Thematic Scope (extract)

(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.)

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



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Next Steps: Specification of common building blocks

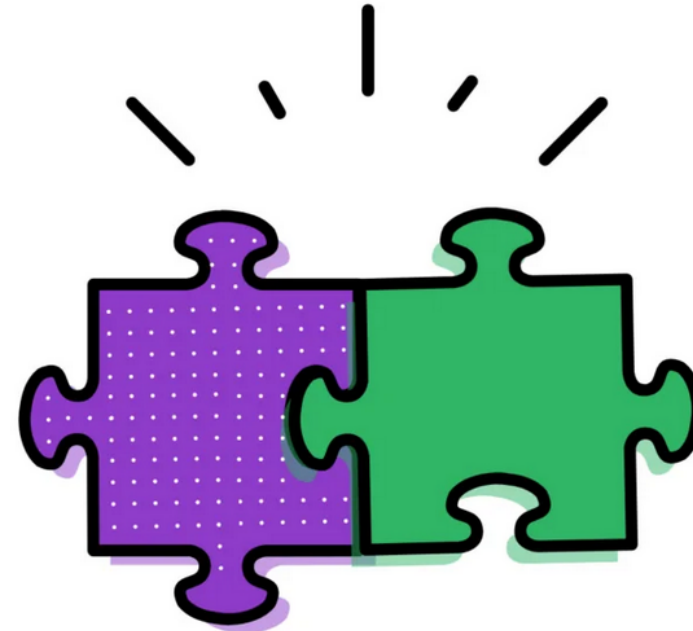


FINDING COMMON GROUND

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.





Next Steps: Identification of common building blocks

We will distribute a comprehensive questionnaire to collect further data from data ecosystems

- Identify gaps & overlaps
- Identify building blocks



As the figure shows, the Open DEI soft infrastructure distinguishes between technical building blocks (in the verticals 'Interoperability', 'Trust' and 'Data Value') and governance building blocks (in the vertical 'Governance'). The questions in this part are organized according to these four verticals in the Open DEI framework.

Interoperability

1. Does the mobility data space need a common data model for representation and exchange of data?
- No
 Yes
- Please add remarks and suggestions on required Data Models (e.g. preferred meta model, description language, deficits of existing models, ...)

How would you rate the importance of this Building Block?	<input type="checkbox"/> 1 (quite low)	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5 (very high)
---	--	----------------------------	----------------------------	----------------------------	--

2. Do you consider a Data Exchange API for the syntactic and semantic harmonization of data from different sources is a required capability of the mobility data space?
- No
 Yes
- Remarks and suggestions on Data Exchange API's (e.g. preferred available Data Exchange APIs, lacking Data Exchange APIs, ...)

How would you rate the importance of this Building Block?	<input type="checkbox"/> 1 (quite low)	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5 (very high)
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3. Does a mobility data space need an API for accessing information about the data provenance, usage and exchange?
- No
 Yes
- Remarks and suggestions on Data Provenance and Traceability API's (e.g. preferred available APIs, lacking APIs, ...)

How would you rate the importance of this Building Block?	<input type="checkbox"/> 1 (quite low)	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5 (very high)
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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?	<input type="checkbox"/> 1 (quite low)	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5 (very high)
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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?	<input type="checkbox"/> 1 (quite low)	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5 (very high)
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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 secrecy, 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?	<input type="checkbox"/> 1 (quite low)	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5 (very high)
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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?	<input type="checkbox"/> 1 (quite low)	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5 (very high)
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Q&A

Thomas Geier, EMTA



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What's coming next and closing

Mónica Castañeda, EIT Urban Mobility



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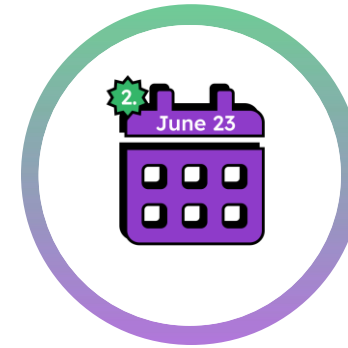
What's coming next



Engaging with each other



Understanding your data ecosystems better



2nd Public Stakeholder Forum in June



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PrepDSpace4Mobility

Get in touch and stay informed!



PrepDSpace4Mobility



www.mobilitydataspace-csa.eu



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