

Mobility Data Space Event

19 MAY 2022



REGISTER NOW
SAVE THE DATE

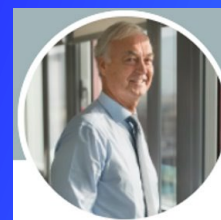
Welcome & Opening, Keynote



Welcome & Opening: Jean-Francois Cases, VP & Associate General Counsel Amadeus, President EONA-X, Mobility, Transport and Tourism Dataspace.



Keynote : Denis Losfelt, Transformation and Digital Coherence Director at SNCF Group



Welcome and thanks

Thank you to Gaia-X and organisers
Congratulations for all the
initiatives

Chapter 1:

10:00 - 10:10 - Welcome & Opening: Jean-Francois Cases, VP & Associate General Counsel Amadeus, EONA-X President

10:10 - 10:20 - Keynote addresses: Denis Losfelt, Transformation and Digital Coherence Director at SNCF Group

Overview of the Gaia-X Mobility dataspace landscape in Europe

10:20 - 10:30 - Project family Gaia-X 4 Future Mobility: Prof. Frank Koester, Founding Director of the Institute for AI Safety and Security, German Aerospace Center (DLR)

10:30 - 10:40 - German Mobility Dataspace: Andreas Heindl, Peter Kraemer, MDS

10:40 - 10:50 - EONA-X Multimodal use case:

10:50 - 11:00 - Belgium Mobility Initiatives: Jelle Hoedemaekers, Expert - Regulations & Standardisation Agoria and Belgium Gaia-X Hub Coordinator

11:00 - 11:10 - Slovakian Mobility Initiatives: Martina Malakova, Industry Innovation Cluster President and Gaia-X Hub Slovakia Coordinator

11:10 - 11:20 - Netherlands Mobility Initiatives: Peter Verkoulen, Programme Manager Gaia-X NL Hub/ TNO

11:20 - 11:30 - Spanish Mobility initiatives: Rizkallah Touma, I2Cat, Samuel Fraga, Eccocar

11:30 - 11:40 - Italian Mobility Initiatives: Cristina De Berardinis, Gaia-X Hub Italy Coordinator and Head of Industrial Policies & Sustainability Confindustria

Overview of the key challenges to address for having successful mobility dataspaces

11:40 - 12:10 - EU Mobility Vision: Kristóf Almásy, Policy Officer, Directorate-General for Communications Network, Content and Technology and Edoardo Felici, Policy Officer (Seconded National Expert) at European Commission, DG MOVE

12:10 - 12:25 - Technical components: Stefan Ettl, BMW Group IT and Patrick Hebant, Amadeus Dataspace ecosystem and EONA-X

12:25 - 12:40 - Legal environment: data act: David Schönwerth, Policy Officer Data Economy, Bitkom e. V.

Break: 12:40 - 14:15

Chapter 2:

14:15 - 15:00 - **#1 Urban mobility** - Moderator: Maximilian Staebler & Simon Odrowski

a) From IoT to the Economy of Things - Self Sovereign Identity & Decentralized Data Spaces: Peter Busch, Robert Bosch Group: Technical Strategy for Mobility and Matthias Burchhorn, Data Space Architect EDC / IDSA / DSBA / Gaia-X (Hub Germany)

b) Gaia-X - Mobility Data Spaces and Citizen Data sharing: Paul Theyskens, MyData Brussels Hub, IMEC and MaaS Alliance Working Group Technology & Standards Leader

15:00 - 15:20 - **#2 Intercity mobility** - Moderator: Dominique Epardeau, Chairperson of Gaia-X Mobility DSBC

Speaker: Ghislain Delabie, Fabrique des mobilités

15:20 - 15:40 - **#3 Enabler Data Standards** - Moderator: Harmen van der Kooij and Jelle Hoedemaekers

Speaker: Michael Karl, Head of Safety-Critical Data Infrastructures - Institute for AI Safety & Security - DLR

15:40 - 16:00 - **#4 Enabler AI** - Moderator: Harmen van der Kooij and Jelle Hoedemaekers

Speaker: Arne Raulf, Head Of Department (DLR): Algorithms & hybrid solutions

This is a long trip we embarked on 2 years ago ... and still on the move

Sovereignty of Data

Members

Use cases

Positioning, added value

Business model

Funding

Collaboration v. Competition



Keynote: Evolution of Mobility Dataspaces

Governance

Use cases

Strategy

Technology



<https://eona-x.eu/>

Sharing EONA-X story Learnings Major challenges successfully met!



Early 2021, European representatives from the global Mobility, Transport and Tourism market start working together on this project.



5 founding members (ADP, AF KLM, AMADEUS, AMP, SNCF) joined by the first active member, APIDAE, created a non-profit association to promote sharing data, in compliance with European rules in the Gaia-x momentum.
1st use case: multimodality



2021: delivery of the first version of the prototype

2022 Answer to European calls for tender Digital Europe

1/« Preparatory actions for the data space for mobility» with Acatech

2/« Preparatory actions for the data space for tourism» with Anvsolutions / Tecnalia



Keynote: Evolution of Mobility Dataspaces



Real-time consumption of data from members' production systems of the members guaranteeing an optimal quality of the data



Development of a catalogue to present the available data that members wish to exchange



Data consumer identity checks and contracts



<https://eona-x.eu/>

Keynote: Evolution of Mobility Dataspaces

Main learnings:

- Obvious barriers to share data (even more between competitors) that is always seen as extremely strategic. Only decided at highest level.
- Positioning of dataspace: we needed several meeting including a workshop at C-Level for finding a dataspace positioning.
 - Cannot be a competitor of the members
 - Members own the use cases
 - Separate the building of the technology (Dalactée) out of the dataspace that is then more oriented to business



<https://eona-x.eu/>



—
Thank you!

Overview of the Gaia-X Mobility dataspace landscape in Europe

Project family Gaia-X 4 Future Mobility



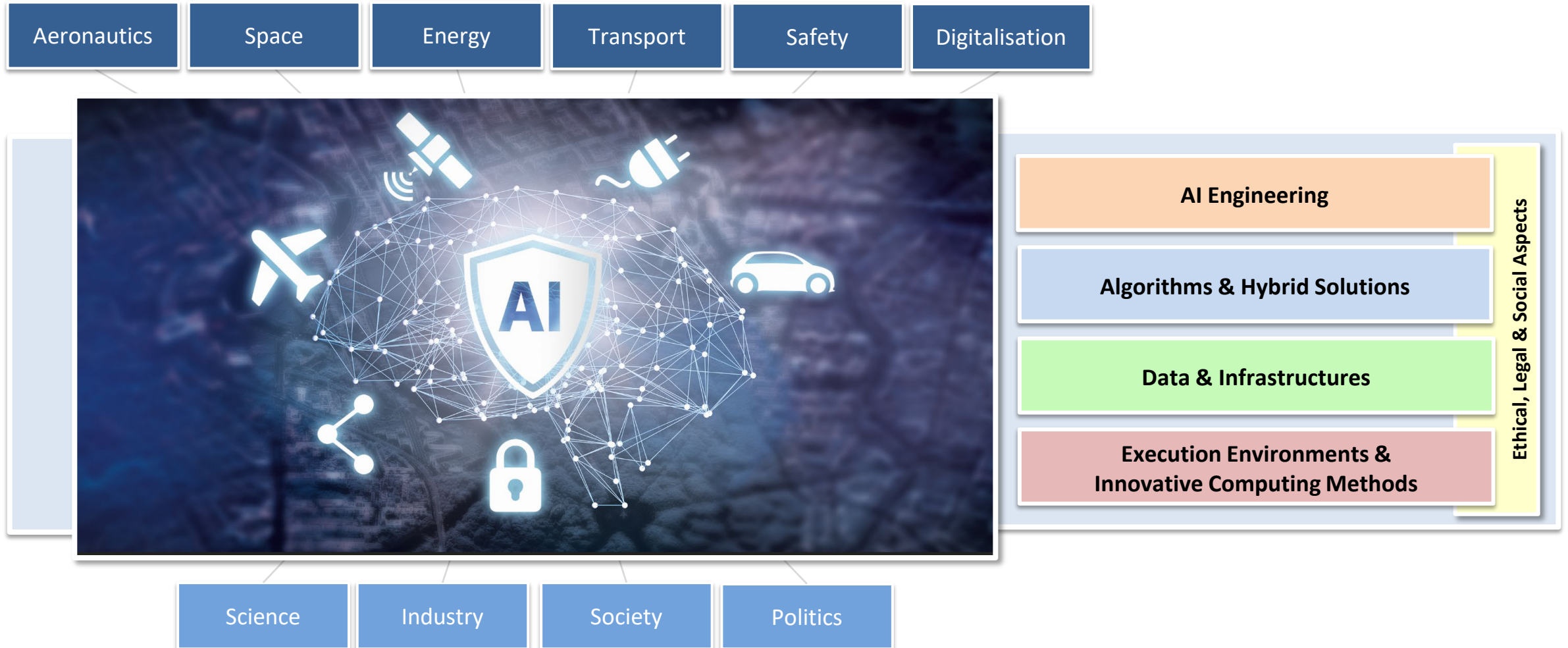
Prof. Frank Köster

Founding Director of the Institute for AI Safety and Security,
German Aerospace Center (DLR)



Institute for AI Safety & Security

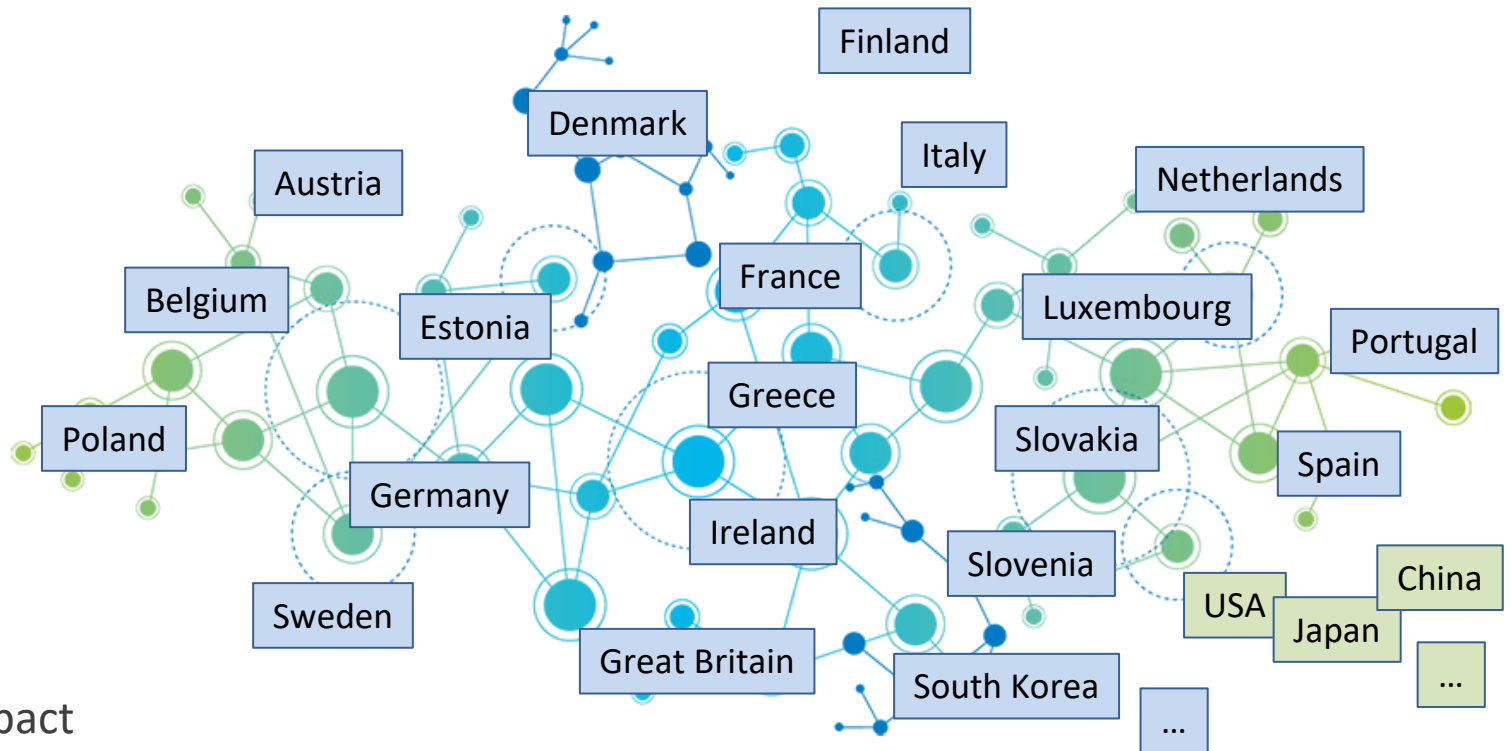
Sankt Augustin and Ulm // www.dlr.de/ki



GAIA-X – Guiding Principles



- GAIA-X will be the basis for a digital ecosystem in which data and services can be made available, integrated/merged, shared and used securely and with an ultimate level of trust.
- Based on European values, GAIA-X implements the following guiding principles:
 - European data protection principles
 - authenticity and trust
 - openness and transparency
 - sovereignty and self-determination
 - free market access as well as European stability and growth
 - modularity and interoperability
 - usability
- European/international visibility and impact



GAIA-X – Guiding Principles → Ecosystem



Advanced Smart Services

(Cross-) Sector Innovations /
Market places / Applications

Data Spaces

Interoperable & portable (Cross-)
Sector data-sets and services

Gaia-X Federation Services

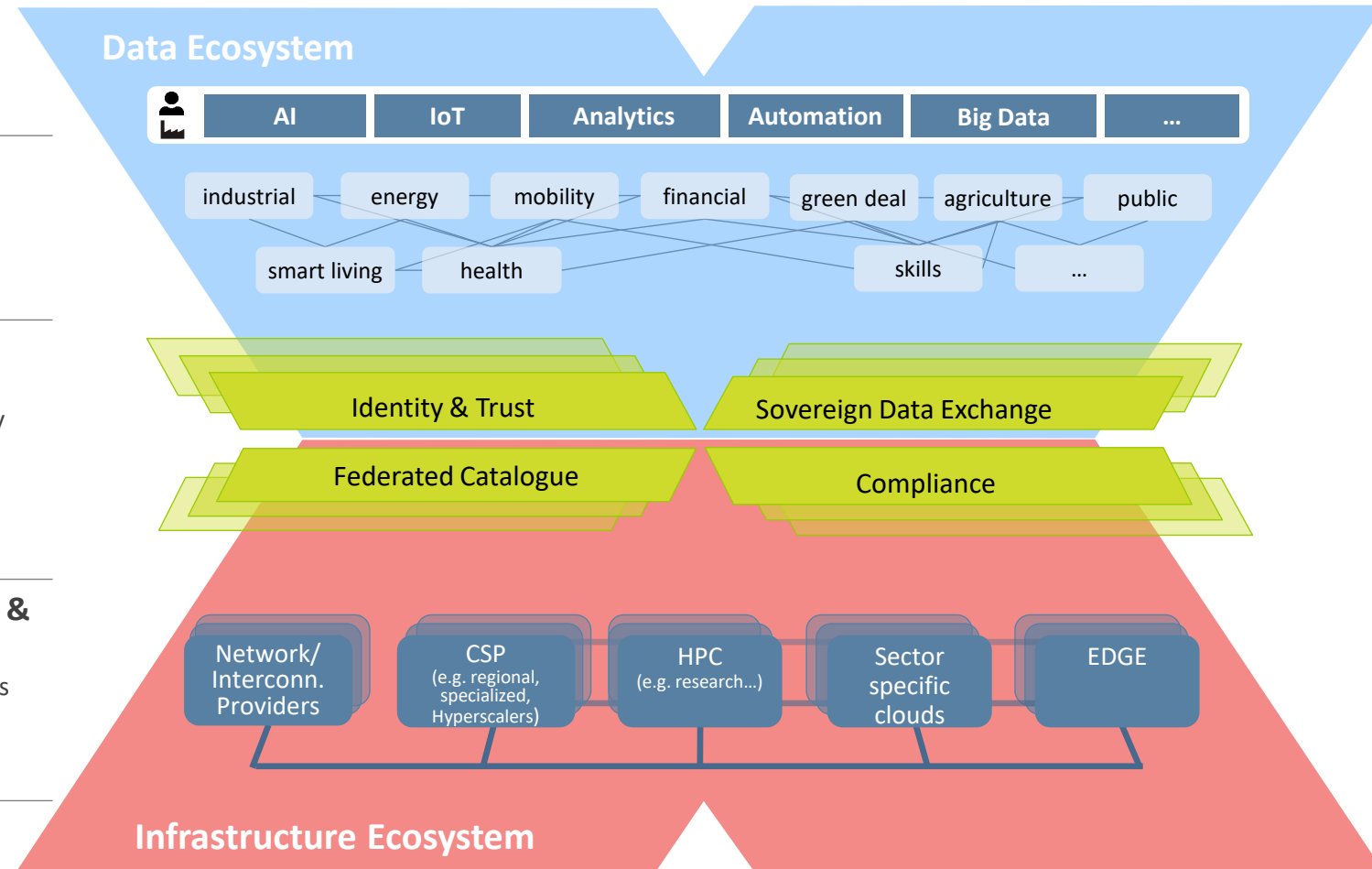
Federated & distributed for
interoperability Trust & Sovereignty
services

Portability, Interoperability & Interconnectivity

Technical: Architecture of Standards
Commercial: Policies

Compliance

Legal: Regulation & Policies



Selected Domains of the German Hub

- Mobility
- Agriculture
- Energy
- Geographic Inform. Systems
- Health
- Finance
- Industry 4.0 / SMEs
- Public Sector
- Smart Living
- Smart City / Smart Region
- ...

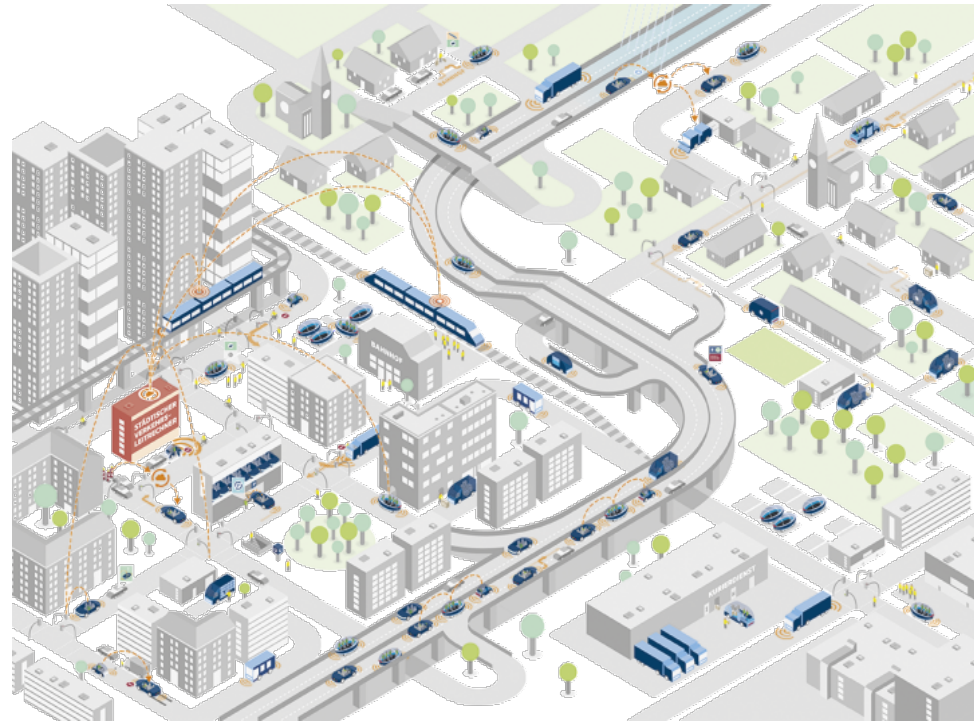


Fig.: acatech

- User-Oriented / -Friendly
- Systemically Approached
- Intermodal
- Coordinated | Cooperative
- Connected | Digitized
- Smart | Automated
- Robust | Available
- Safe and Secure
- Open | Flexible
- Service-Oriented
- Capable of Transformation
- Affordable | Sustainable

GAIA-X **4** Future Mobility



- Based on collected use-cases a set of complementary projects is currently established – “Projektfamilie GAIA-X **4** Future Mobility”

- GAIA-X **4** AMS

Connected & Automated Vehicles and Intelligent Traffic Infrastructures as well as **Reliable & Safe Corridors** – e.g. Rescue Corridors

- GAIA-X **4** ROMS

Management (e.g. Remote Operation) of Connected & Automated Vehicles and Fleets with respect to the status of the Traffic System

- GAIA-X **4** PLC

Decentralized and open Data Ecosystem based on Digital Twins intended to support Product Development, Manufacturing and After Sales – with a focus on automated driving

- GAIA-X **4** moveID

Decentralized Digital Identities and Trustworthy Data Exchange for various Use-Cases (e.g. Zoning, Traffic Infrastructure Management, Smart Parking and Collection of Vehicle Data)

- GAIA-X **4** KI

Data and Service Ecosystem for **Training and Validation of AI-based Components/Applications** with a focus on the Automotive Sector.

GAIA-X 4 Future Mobility

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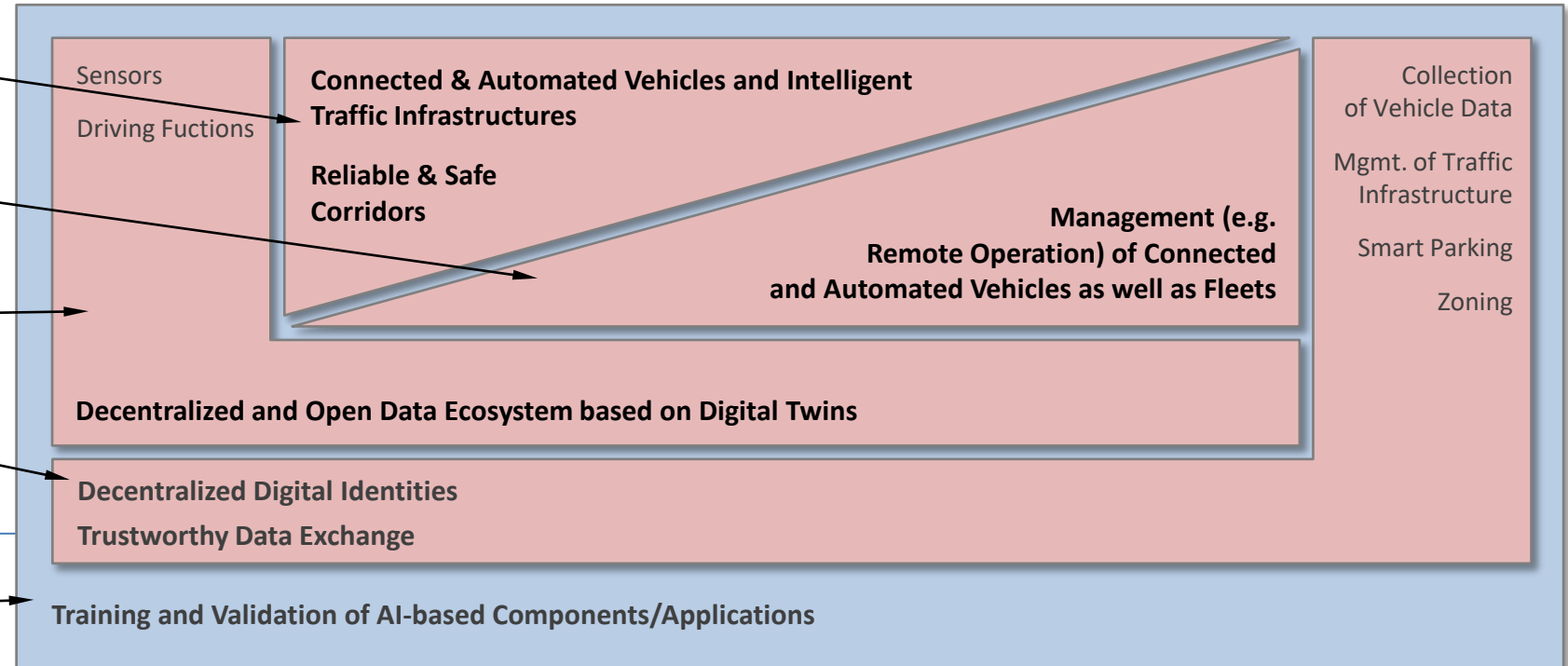
- GAIA-X 4 AMS

- GAIA-X 4 ROMS

- GAIA-X 4 PLC

- GAIA-X 4 moveID

- GAIA-X 4 KI



GAIA-X 4 Future Mobility – Partners



Industry & SMEs

3D Mapping Solutions	ADC	AFUSOFT	AVL	Arvato	Bernard Gruppe	BMW
Capgemini Engineering	consider it	Continental	Conti Temic microelectronicis	Conweaver	Elektra Solar	embeteco
highQ	highQSoft	IAV	ifak	Infineon Technologies	Inte I	IQZ
Kron e	Kroschk	Materna	msg	OS Decor	PePro	Peregrin
reuschla w	SETLab Research	Software A	STTec	TraceTron	TraffGo Road	TrianGraphics
T-Systems	Umlaut	Virtual City	Yunex Traff	+ 19 more partners onboarding, e.g., Bosch, Hella, Volkswagen, Airbus...		

Research & Universities

DLR	DFKI	FKFS	Fraunhofer FIT	Fraunhofer IPK	Fraunhofer ISST	Fraunhofer IVI
Fraunhofer ITWM	htw saar	Leibniz University Hannover	Offenburg University	TH Ingolstadt	TU Berlin	TU Dortmund
TUM	Zeppelin University	+ 2 more partners onboarding				

Public Sector & Others

ASCS	Freie und Hansestadt Hamburg	IOTA	Stadt Braunschweig	Verkehrsbetriebe Hamburg-Holstein	ZITiS
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GAIA-X 4 KI

GAIA-X 4 AMS

GAIA-X 4 ROMS

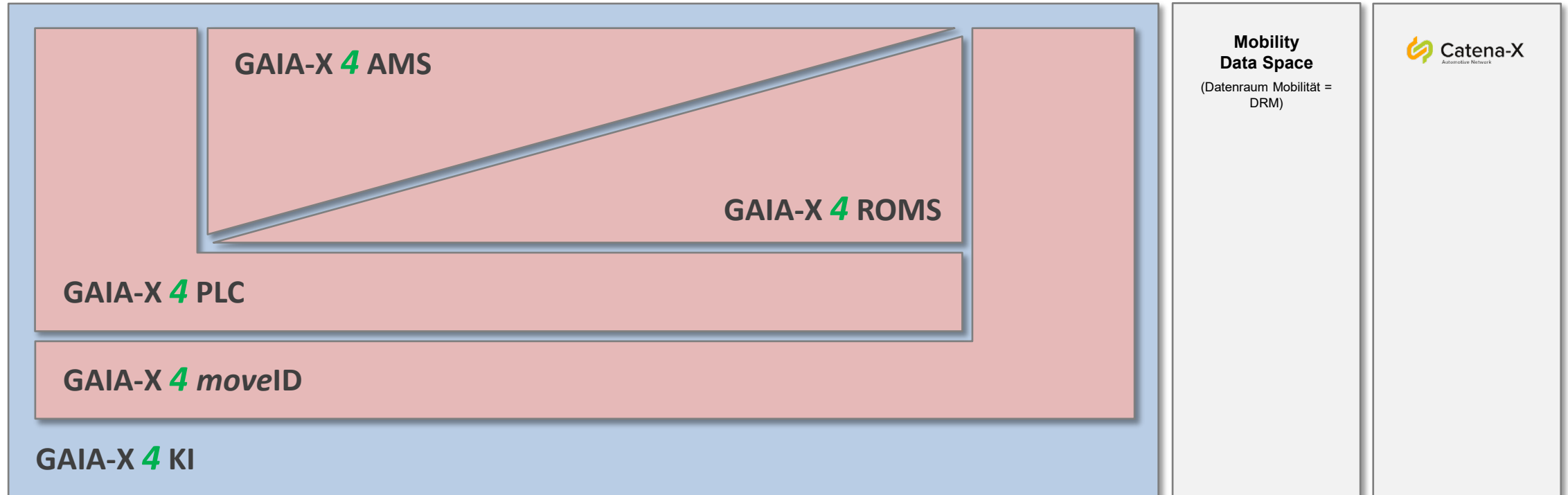
GAIA-X 4 PLC-AAD

GAIA-X 4 Future Mobility

... and other Projects / Initiatives



- Based on collected use-cases a set of complementary projects is currently established – “Projektfamilie GAIA-X 4 Future Mobility”

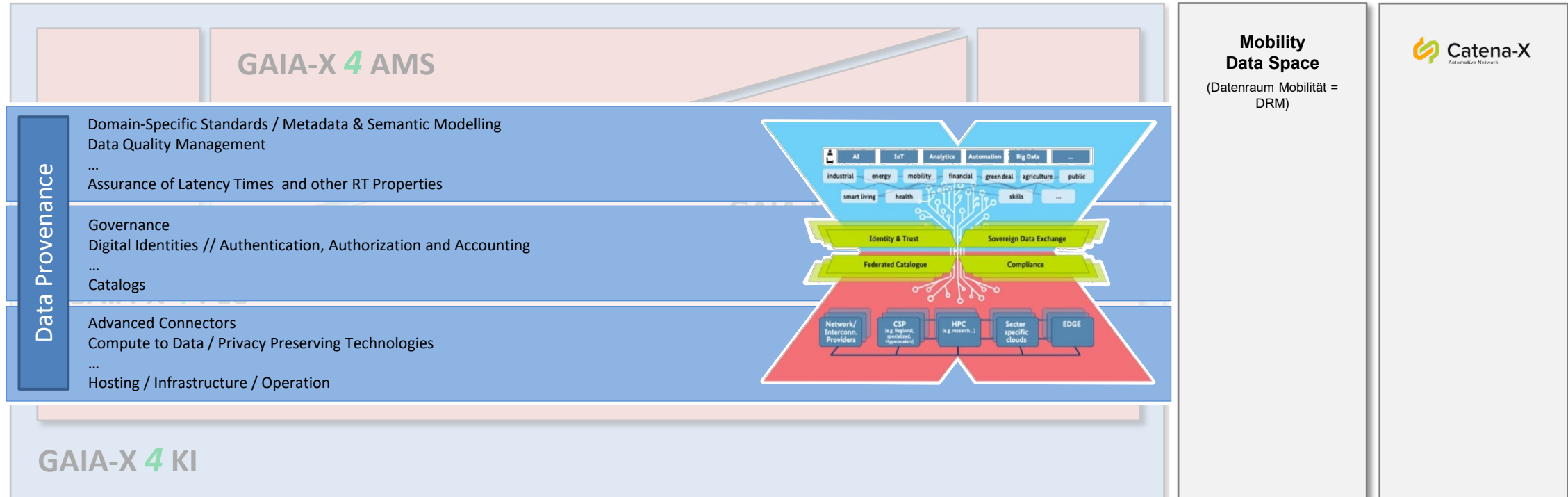


GAIA-X 4 Future Mobility

... and other Projects / Initiatives



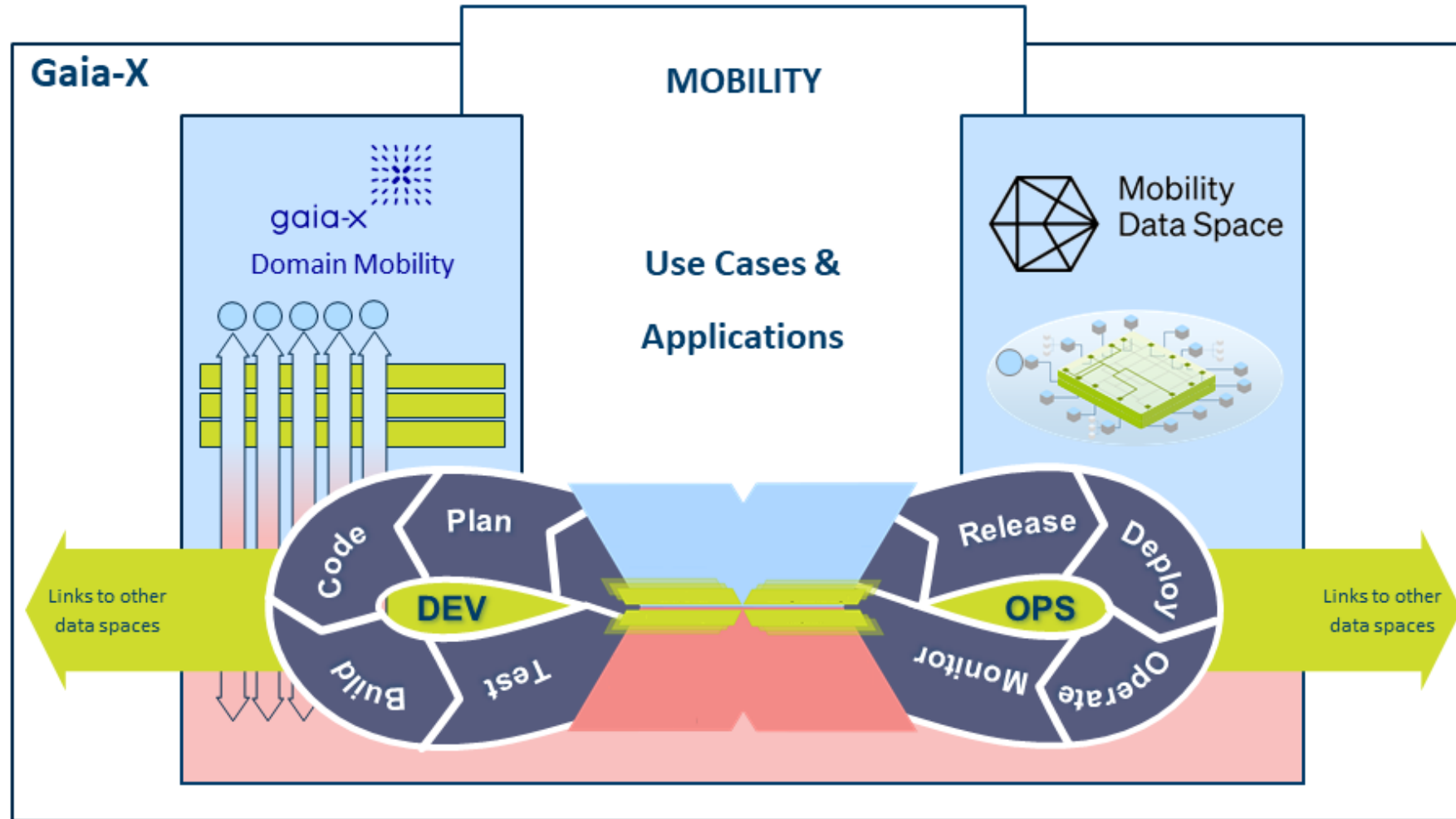
- Based on collected use-cases a set of complementary projects is currently established – “Projektfamilie GAIA-X 4 Future Mobility”



*KI = Künstliche Intelligenz = Artificial Intelligence = AI

GAIA-X **4** Future Mobility

... and Mobility Data Space



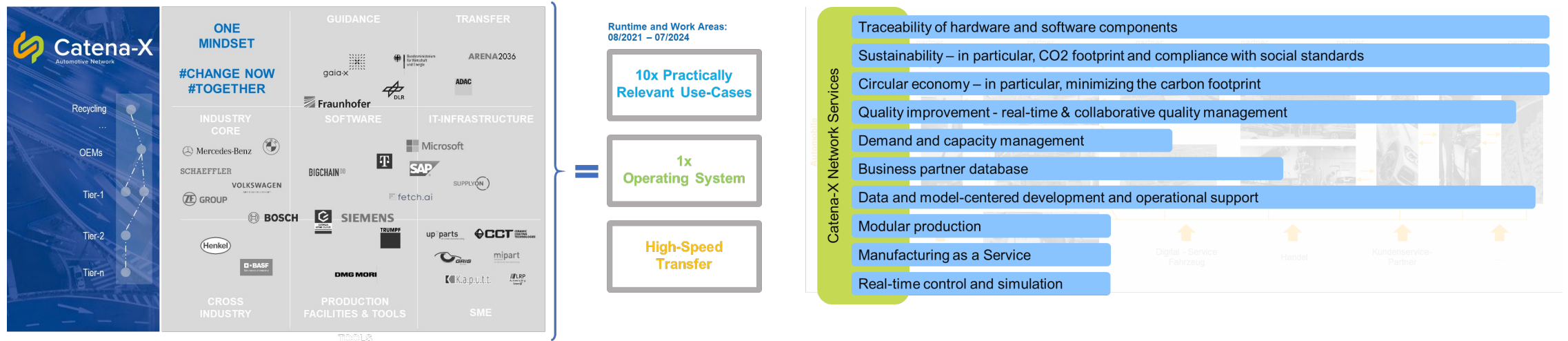
GAIA-X 4 Future Mobility

... Catena-X



— Catena-X – joint mission

- „We offer the **most user-friendly environment** for the construction, operation and collaborative use of **end-to-end data chains along the entire automotive value chain**.
- The resulting data ecosystem makes us unique and is an important factor for the **sustainable development of the industrial sector as well as the individual companies**.
- It **rewards all participants** with above-average resilience, innovative strength and profit opportunities.“

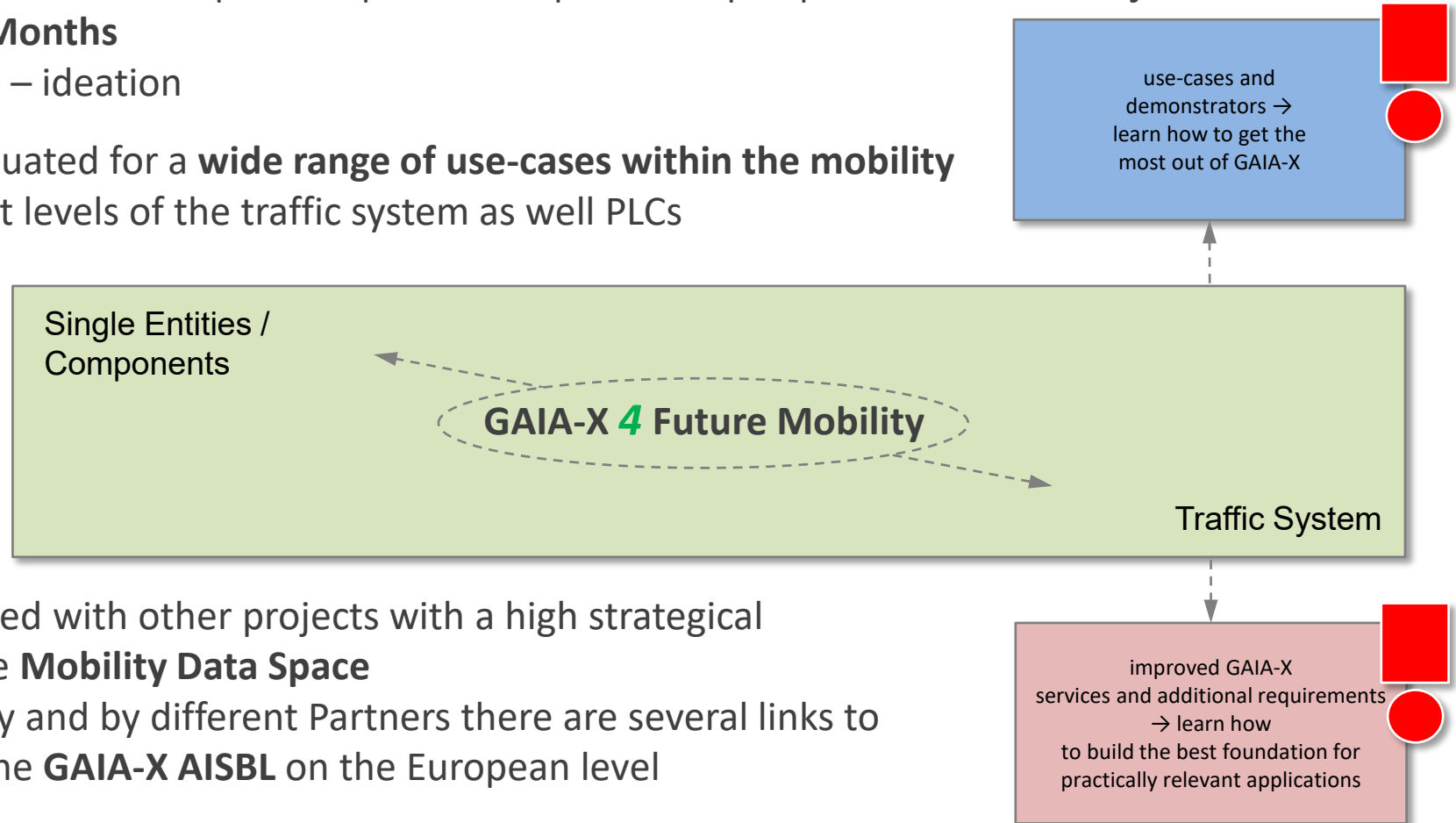


GAIA-X 4 Future Mobility

Take Home Messages



- GAIA-X 4 Future Mobility → GAIA-X 4 AMS | ROMS | PLC-ADD | *moveID* | KI | + 1 additional Project
- ~80 Partner and ~10K Person Months
- Further Projects in preparation – ideation
- GAIA-X will be applied and evaluated for a **wide range of use-cases within the mobility domain** which address different levels of the traffic system as well PLCs
- GAIA-X will benefit from **experiences** derived from use-cases and demonstrators practically relevant **requirements and improvements**
- GAIA-X 4 Future Mobility is linked with other projects with a high strategical relevance like **Catena-X** and the **Mobility Data Space**
- Via the GAIA-X Domain Mobility and by different Partners there are several links to the **German GAIA-X Hub** and the **GAIA-X AISBL** on the European level



Thank you!

Prof. Dr. Frank Köster
Frank.Koester@dlr.de

Overview of the Gaia-X Mobility dataspace landscape in Europe

German Mobility Dataspace



Andreas Heindl

Project Lead Mobility Data Space, National Academy of Science and Engineering



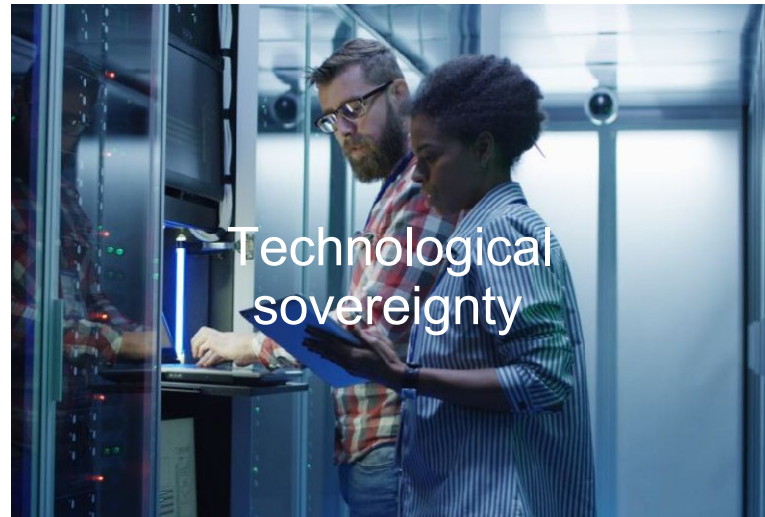
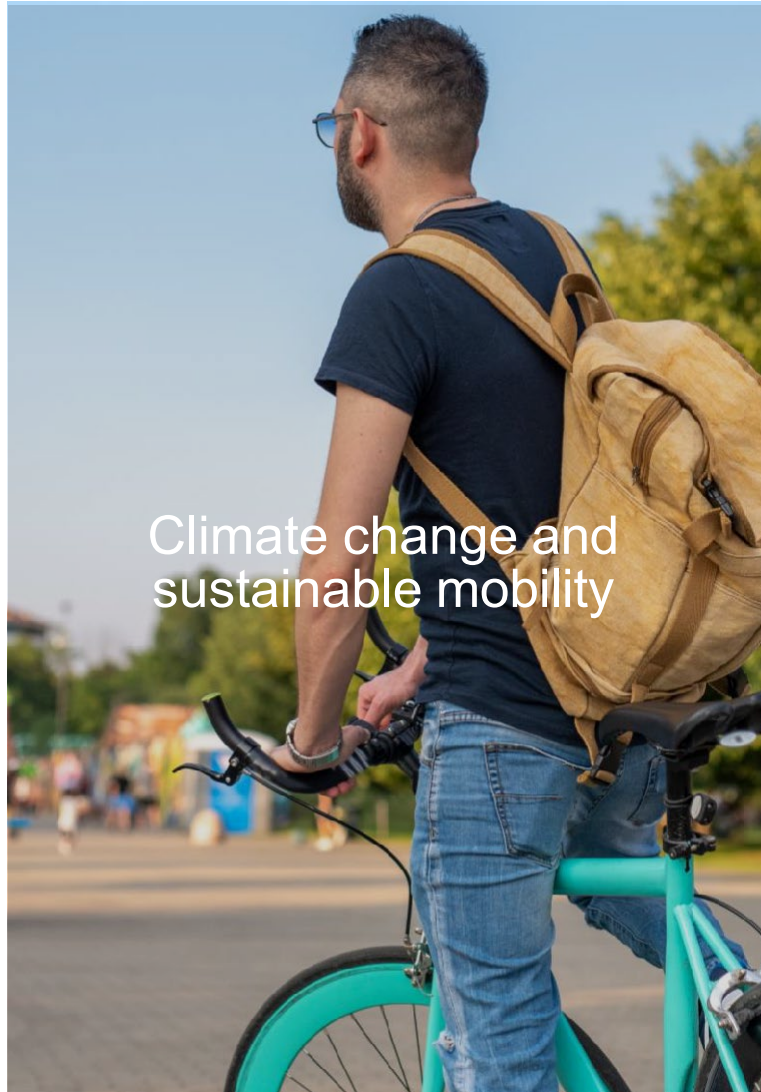
Mobility Data Space – Data Sharing Community

Presentation | Gaia-X Mobility Data Space Event | 19 May 2022

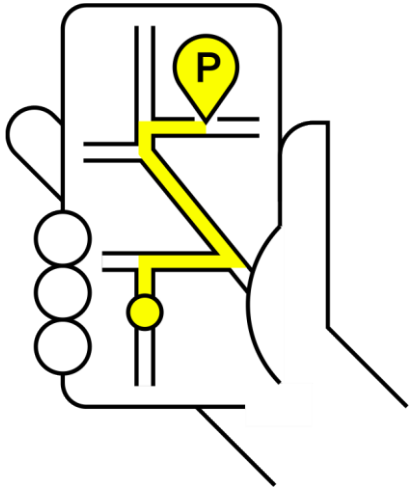
01

Challenges

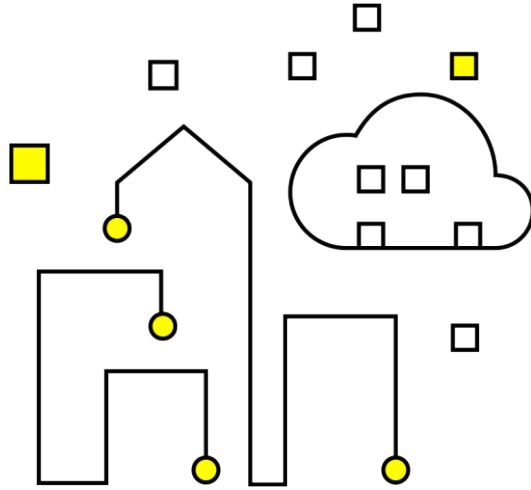
Mobility | Challenges, requirements, constraints



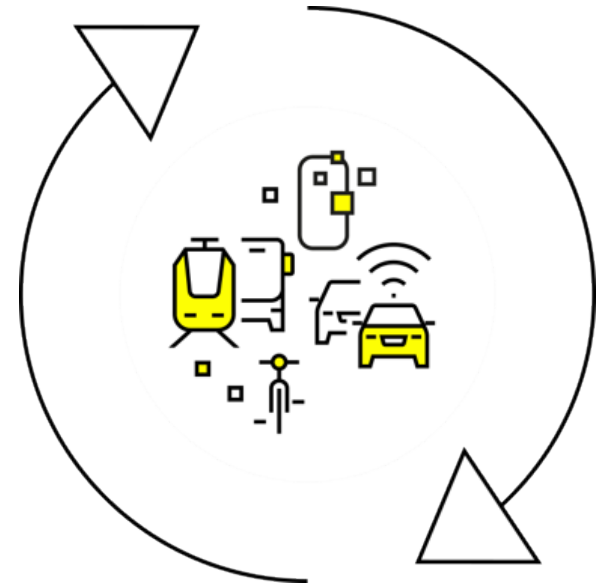
Mission | Towards a more sustainable mobility



Application



Digitalization

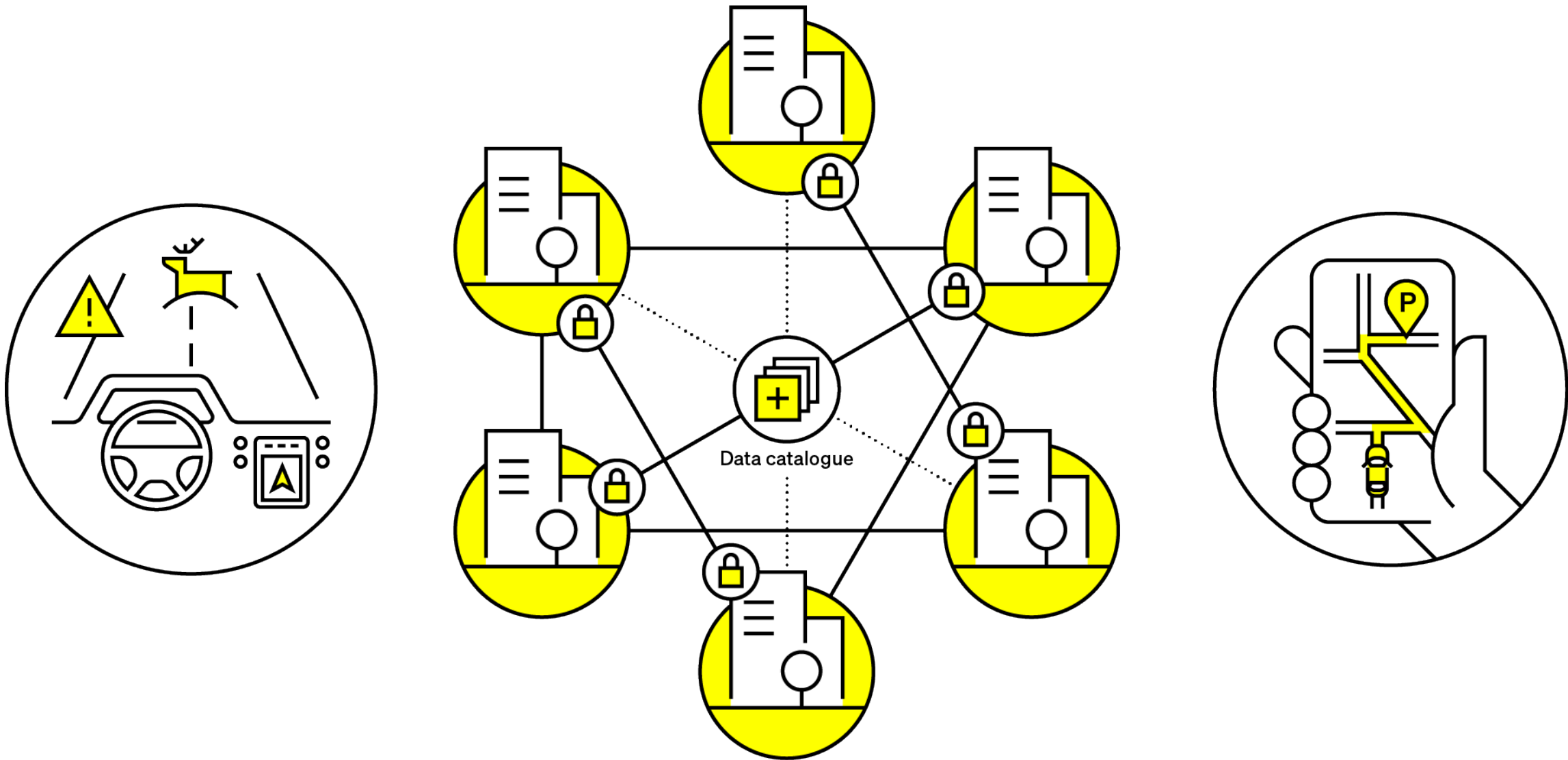


Facilitate data

02

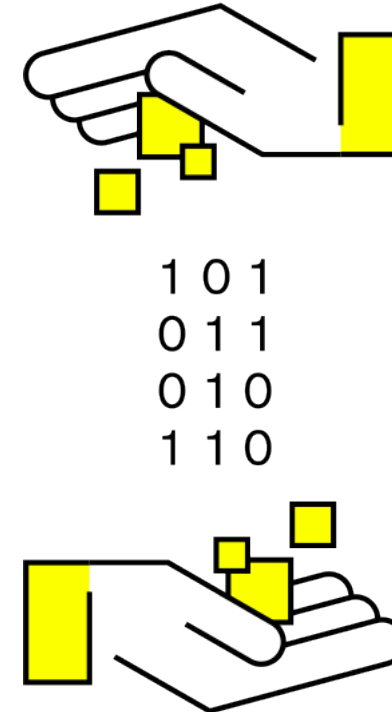
Mode of operation

Arcitecture | Implementing innovative products and services



Marketplace for services: wide range and tailor-made services

- **Decentralisation:**
data is not stored centrally, but shared directly among participants
- **Freedom of contract:**
contractual partners negotiate conditions directly and autonomously among themselves
- **Value creation:**
no transaction costs will be due for participants until 2024, and only low costs will be incurred thereafter as well



03

Solutions and data

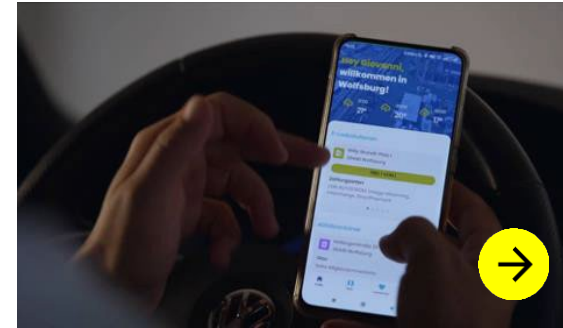
Applications | Solutions for future mobility



BMW
Local Hazard Information



Caruso
Sustainable use of
of electric drives



FIWARE
Smart Parking



highQ
AI-based optimisation of
current mobility offers



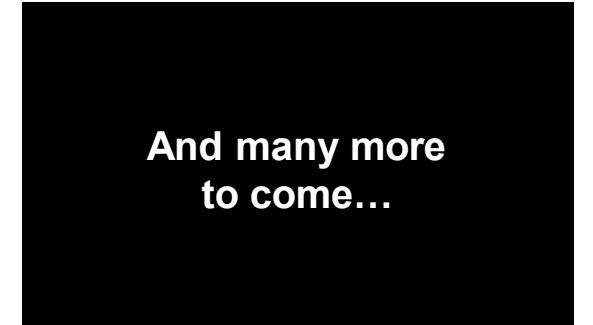
Mercedes-Benz
“Parking Monitoring” and
“Slippery Road”



**[ui!] Urban Mobility
Innovations**
Information on capacity
utilisation



Volkswagen
Local Hazard Information



Data sets | Wide range of mobility data



Traffic
information



Roadworks and
road conditions



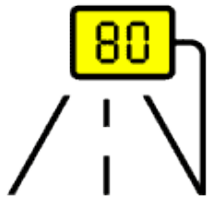
Traffic flow
information



Parking
information



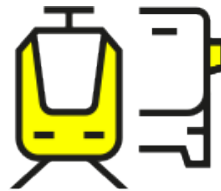
Fuel price and
electromobility



Traffic signs and
speed information



Weather
information



Public transport
information



Car and
bike sharing



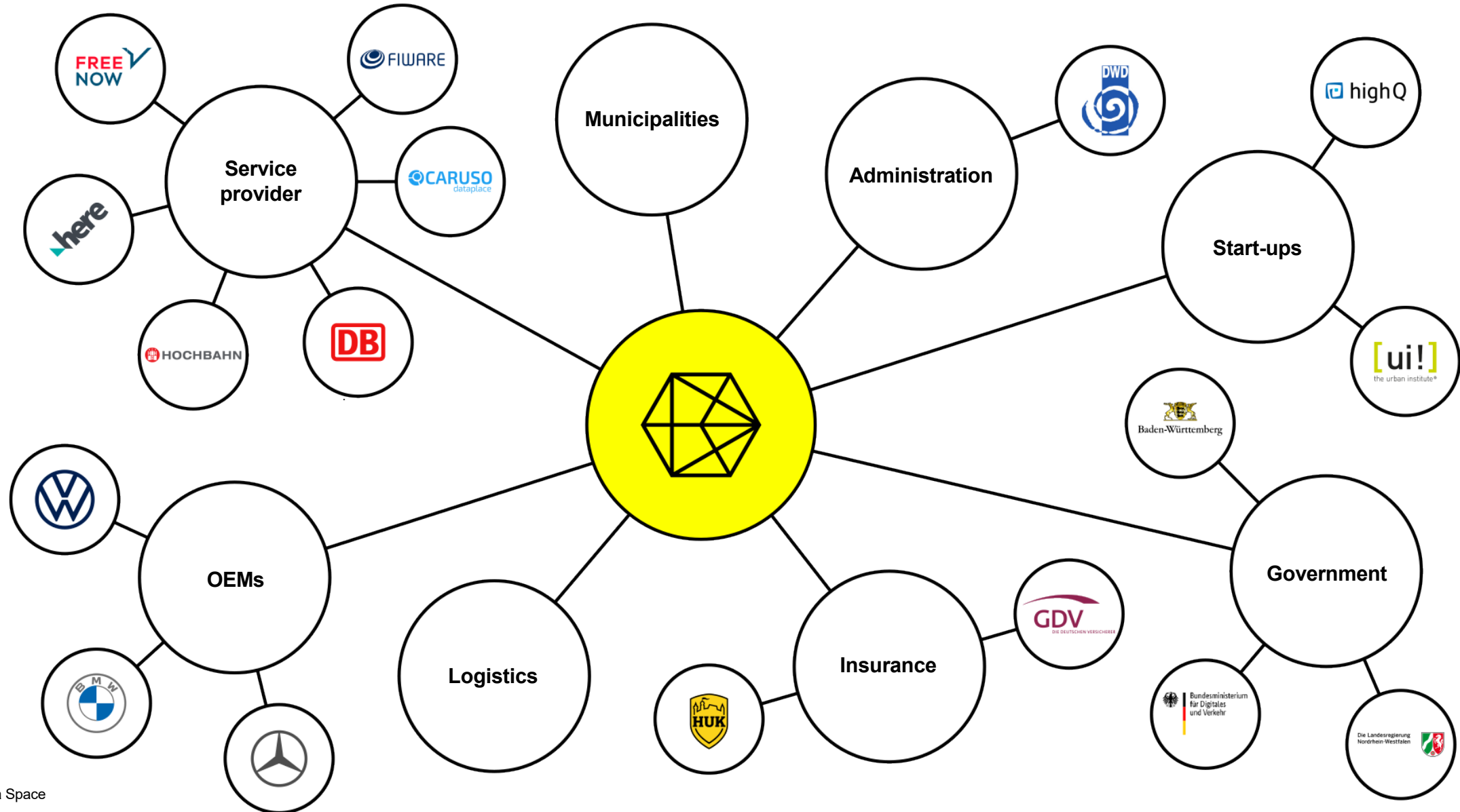
Infrastructure

... and categories to come!

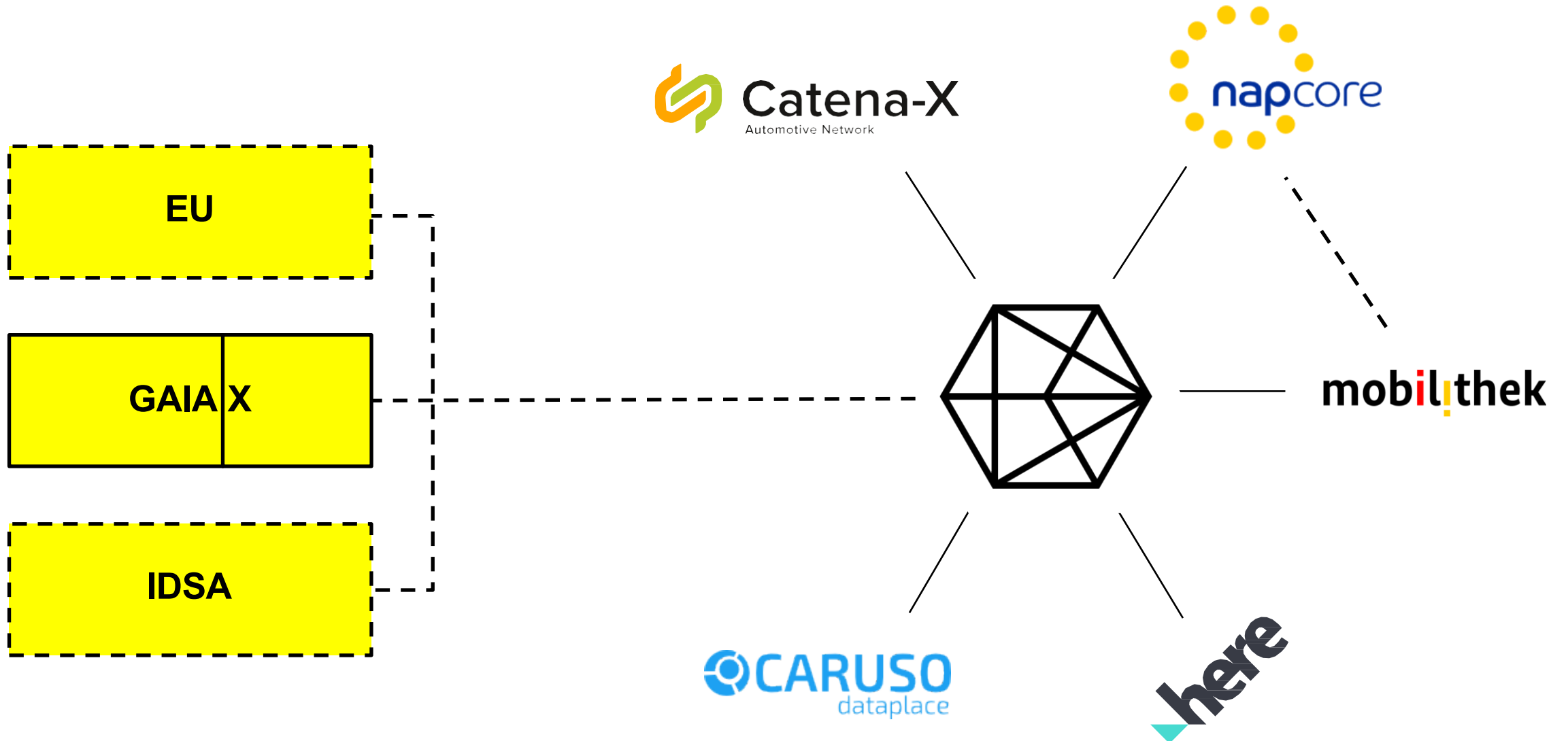
04

Community

Stakeholders | Creating an ecosystem



Interoperability | Ecosystem of data spaces

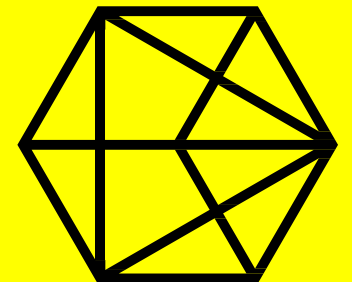


A modern office environment with people working at computers and a man and woman looking at a tablet. The scene is dimly lit with blue tones, featuring glass partitions and multiple computer monitors. In the foreground, a man in a light blue shirt and a woman in a dark blazer are looking at a tablet together. In the background, other people are working at desks with multiple monitors. The text "Join the Data Sharing Community" is overlaid in white.

Join the
Data Sharing Community

info@mobility-dataspace.eu
www.mobility-dataspace.eu

DRM Datenraum Mobilität GmbH
Karolinenplatz 4
D-80333 München



Overview of the Gaia-X Mobility dataspace landscape in Europe

EONA-X Multimodal use case



David Krief

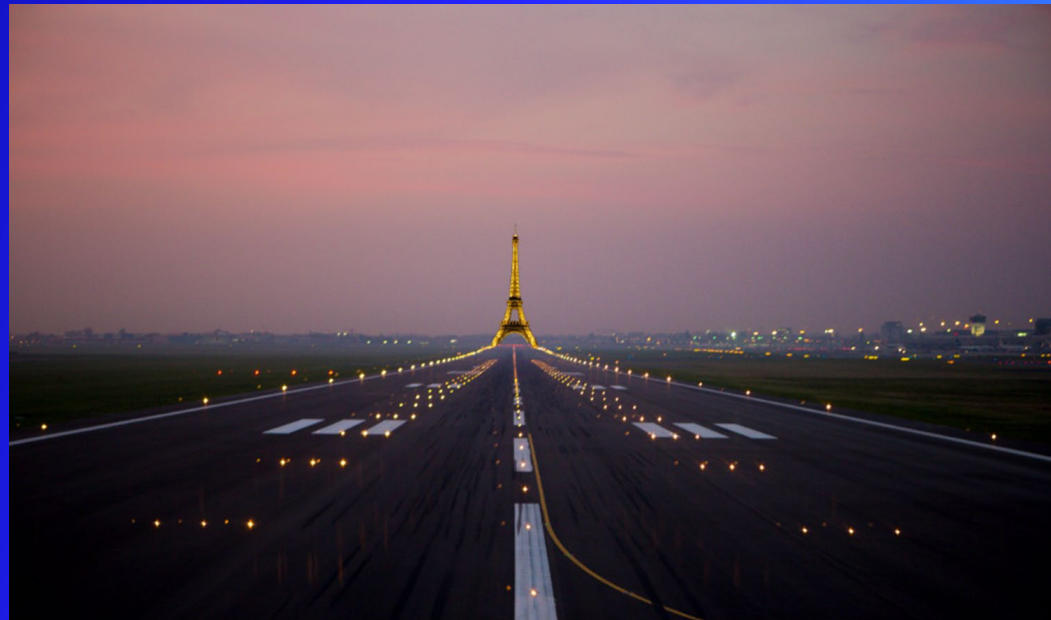
Chief Information Systems Officer, Groupe Aéroports de Paris



Harnessing data for multimodal & green airports



EONA-X : the Mobility,
transportation and Tourism Data
space



EONA-X

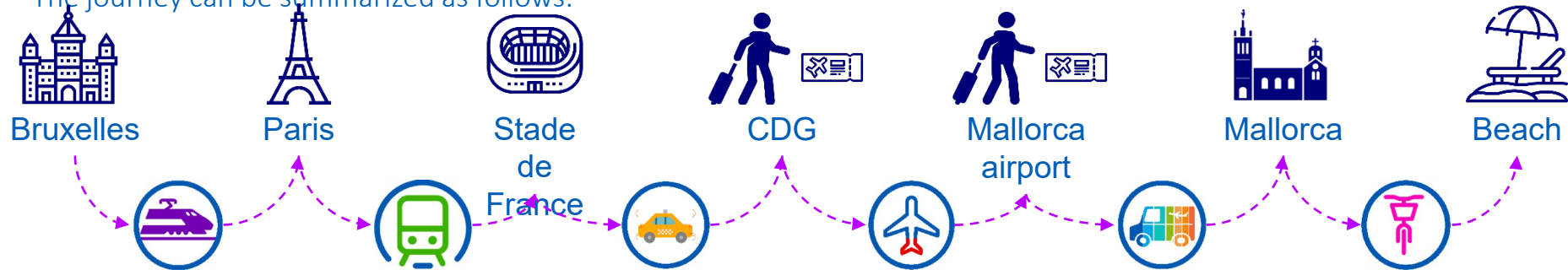
Use Case selected as showcase of the feasibility

Initial problem

- Usually, **transport is multi-segment**, involving several means of transportations and different stakeholders making it difficult to adapt to disruption
- **Each segment has its own rules, tickets, sources and channels of information**

User story

- The traveler is planning to **go to Marseille from Brussels going through Paris** to watch a match at the Stade de France
- The journey can be summarized as follows:



- The traveler used the platform contains **everything necessary to plan a trip à la carte**: possible ways of transportation for each leg, schedules, connections, prices, bookings and so on.
- Once added to her trip, he receives **real-time updates** and notifications on the corresponding **mobile app**, his digital assistant during the trip. This app works like a **safe-box in which all tickets and travel documents are stored**.

First MVP perimeter

- As a traveler, I can manually create a trip by adding flights, trains and buses to my “**travel book**”
- For each ways of transportation, I entered I **see the schedules, details and receive real-time updates**.
- **Direct advantage**: the stakeholders share schedules under a common format



Why begin in Paris ? Because if it works there, it will work everywhere in Europe



gaia-x

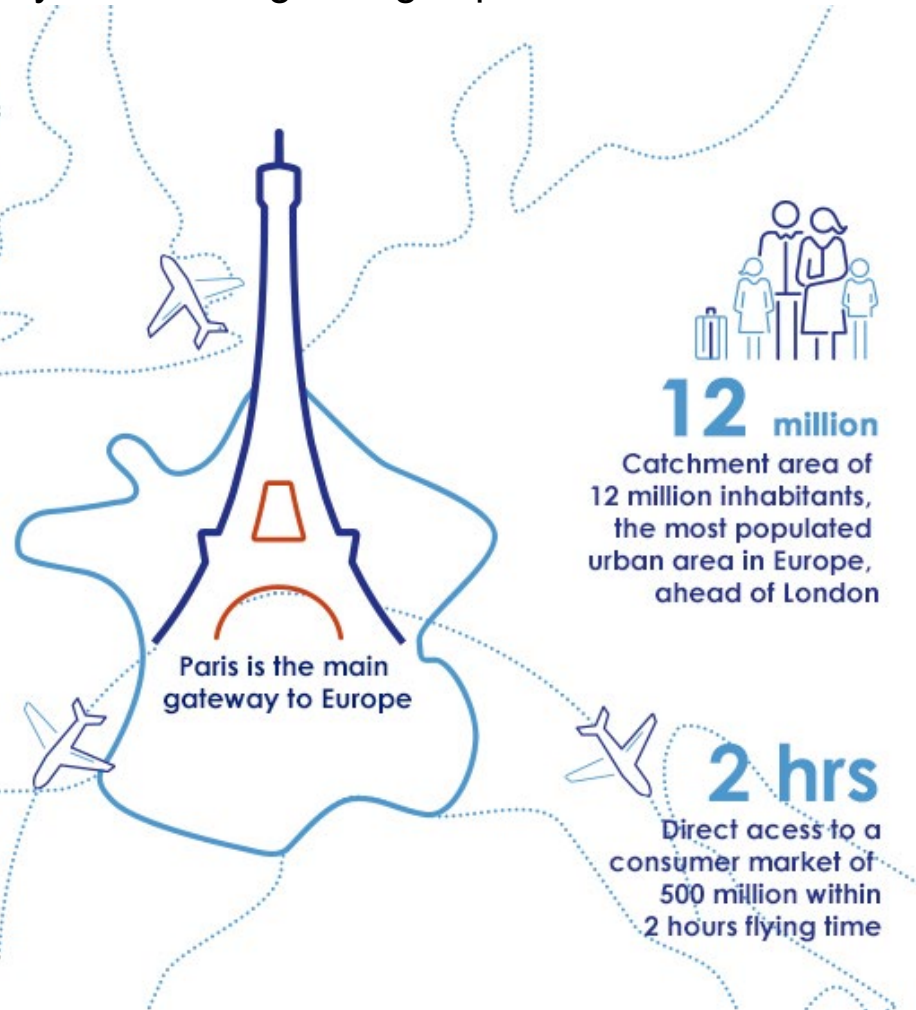
The Great Paris Region, is a an incredible **transportation hub (both urban and intercity)**, with the biggest project of new subway and the largest high speed trains and air network in Europe.

5th

France is the 5th-largest economy in the world and the 2nd-largest in Europe

€640 bn

is the GDP of Paris region, a place of excellence for business



Paris is also the **world leader for business and leisure tourism** : with 42 million international visitors per year (28 million international pax coming by air, others by trains buses, and cars).



EONA-X members are already working together on multiple use cases

Thanks to data sharing, EONA-X is committed to develop the highest standards for visitors and inhabitants of Europe:

Paris – Charles de Gaulle Airport have been awarded a special position of **lighthouse project for sustainable and green airports**, with OLGA consortium (Following airports are Milan, Zagreb, Cluj, and we hope very soon other airports)*.

Groupe ADP works along with SNCF (the French rail company) on the **eCorridor Project funded by the EU in a large consortium to implement a smart and seamless multimodal travel** from the train stations through the airport terminals.

SNCF, Air France, Groupe ADP, Marseille-Provence Airport, APIDAE and Amadeus decided to work on a special project for **disabled passengers and elderly persons with low mobility**. To ease and secure their travel is very important, both in the Paris area and on the intercity link, and we intend to implement that in the V2 of the EONA-X demonstrator.

Paris is one of the most advanced place in Europe for **Urban Air Mobility** (eVTOL: electric air taxis) and implements one of the first skyport networks in the world (sand box already in Service in the North West of the Paris Region). On that matter too, sharing data between all airport, civil aviation, handlers etc will be essential.

Last but not least, Paris will **welcome the 2024 Olympics** (with 80 000 delegates for Olympics and 40 000 delegates for paralympics). We intend to provide direct information for the organisation and facilitate baggage and passenger journeys.

* Amsterdam and Brussels have also their own green airport project and 2 sea ports have been selected too, by the EU.



**EONA-X members are committed to bring the world to Europe
... and to bring europeans data spaces to the world**



AIRFRANCEKLM
GROUP

amadeus



AMP aéroport
marseille
provence



Thank you!

Overview of the Gaia-X Mobility dataspace landscape in Europe

Belgium Mobility Initiatives



Jelle Hoedemaekers

Expert - Regulations & Standardisation Agoria and Belgium Gaia-X
Hub Coordinator



Overview of the Gaia-X Mobility dataspace landscape in Europe

Slovakian Mobility Initiatives



Martina Malakova

Industry Innovation Cluster President and Gaia-X Hub Slovakia
Coordinator



Slovakia is Innovative and Smart in Mobility

- Slovakia is the biggest manufacturer of cars per head of inhabitants in the world
- Today the issues in transport are to be green, digital and sustainable



Capacity building and networking, conceptual work

- **National Driving Digital** conferences and round tables carried out since 2019



- **National association for Smart Mobility, Slovakia** founded in August 2021.



- First department of smart mobility within the **Slovak government** established in 2020/2021



National association **Smart Mobility Slovakia** (Inteligentná mobilita Slovenska) as a representative platform is based on a cluster and innovation triangle model. Membership: ministries, representative associations of the automotive industry and electromobility, universities of technology, academies of science, innovative and automotive industry and the **Industry Innovation Cluster** as a partner.

Even more initiatives and support

- **Smart Mobility Lab** association (test bed and RnD),
- Regional activities focused on the 0-emissions concept in larger areas (Bezemisné Tatry and others),
- Local initiatives in larger cities and regions



Smart Mobility is one of 5 domains within the actualization of the National R&D Strategy of Smart Specialization (November 2021). Domain priorities are focused on:

- **Connected** and **autonomous** mobility (conditions for CCAVs, ecosystems, test beds, demonstration activities)
- Smart Mobility and ITS Services
- **Decarbonisation** and sustainability of mobility

A National Smart and Sustainable Mobility Strategy



Strategy and relevant action plans adapted by the government (2021 - 2022)

First Proof of Concepts lead by universities and private sector representatives supported by Ministry of Transport and Construction in 2022



MINISTRY
OF TRANSPORT
AND CONSTRUCTION
OF THE SLOVAK REPUBLIC

Our experience, our member's projects ...

 **STU**

Infrastructure data
collection for future
mobility and for
autonomous self-
driving cars

5G -Automotive

in cooperation with



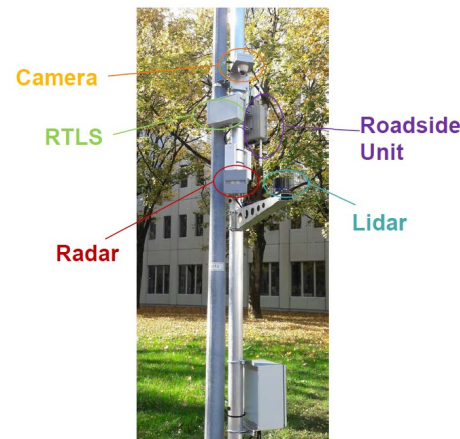
Infrastructure data collection

- Are our roads ready for future intelligent transport systems in cities?



- Are sensors (lidars, radars, cameras,...) ready to collect all the necessary information?

 STU



Real data collection ...

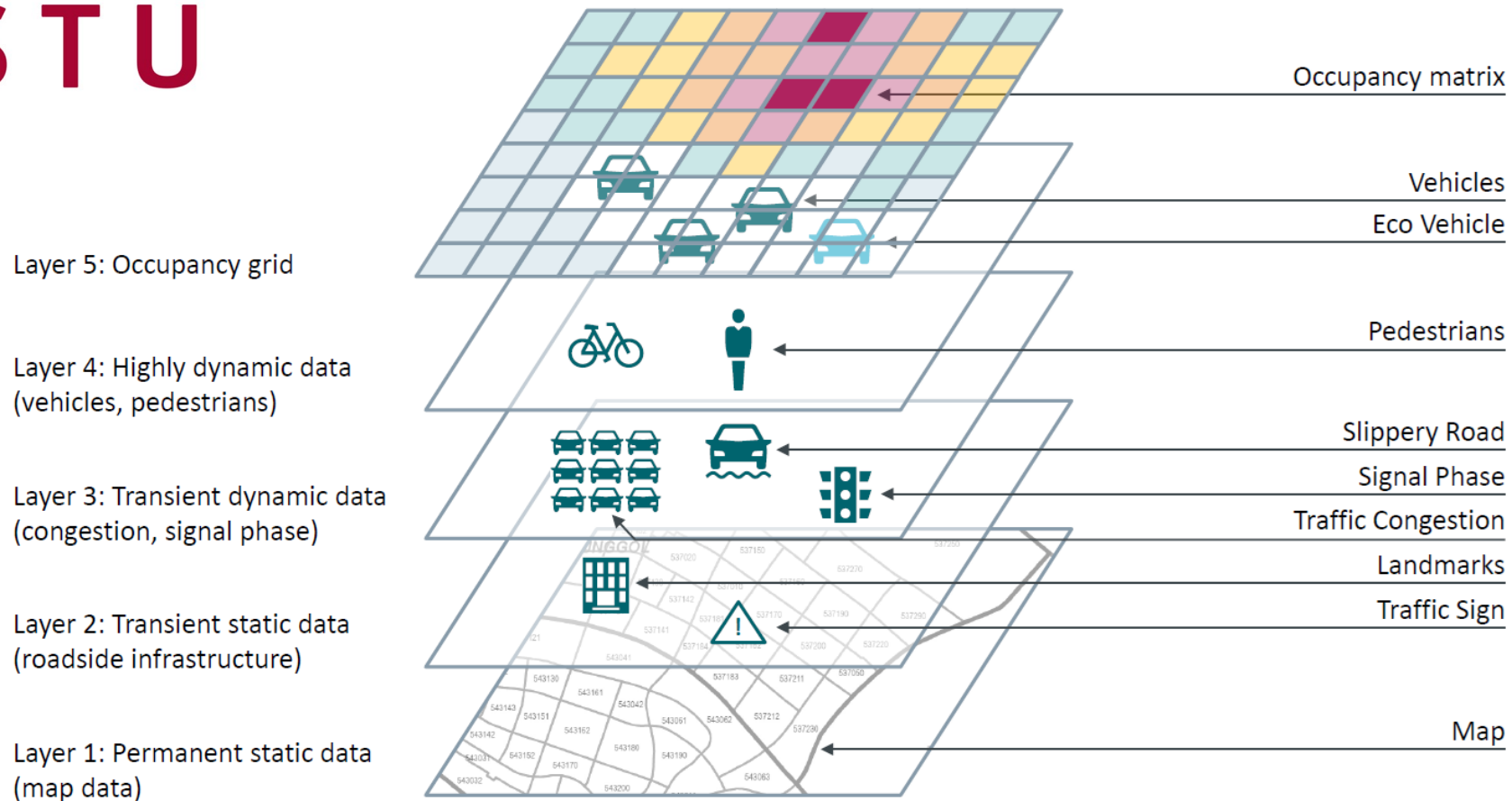
STU



One day – One bus – In Real time - 25 TB of data

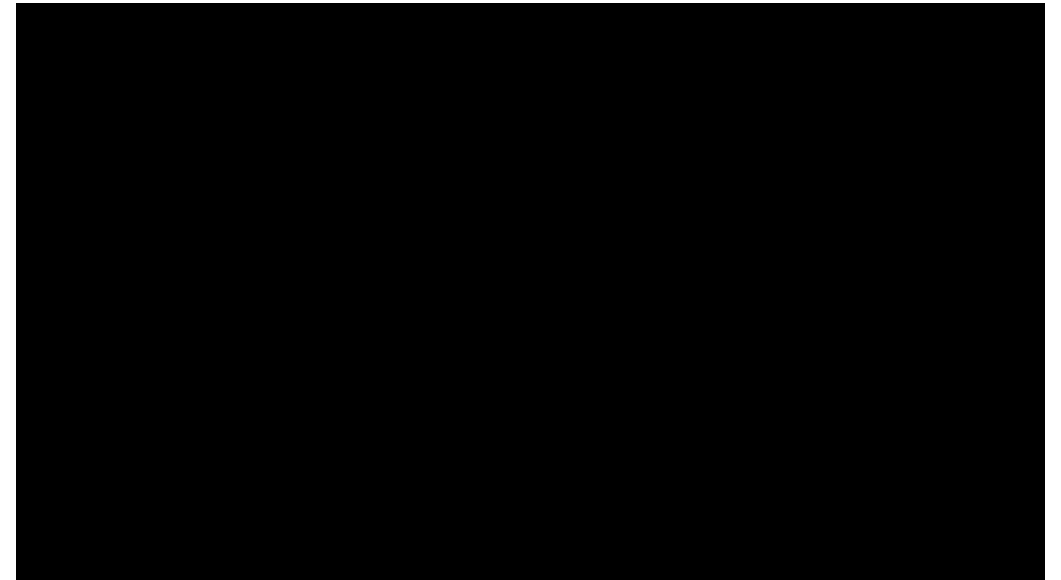
Future results ...

STU



STU

- A real Vehicle connected to Vehicle Digital Twin via the 5G Network
- Driving vehicle properties with pre-computation to increase vehicle safety
- Cloud computing/Edge computing/High performance computing
- Large amount of data storage



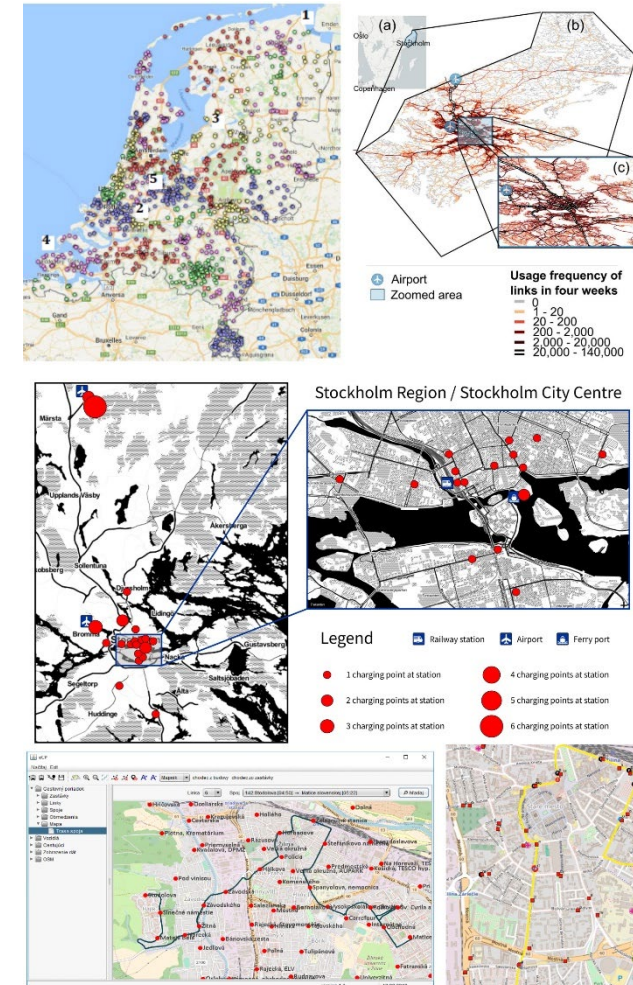
Developement of methodologies for infrastructure planning (gradual development and build-up of charging infrastructure in smart cities and regions)

Finding of relevant variables for prediction of the demand for charging e-vehicles

Classification methods to predict the trend of electrical energy consumption

Methodologies for designing charging infrastructure for a fleet of electric vehicles operating in large urban areas

Methodologies for designing charging infrastructure for electric buses (charging stations, electric roads, schedules)



Research for Slovak Railways

Information systems for railway traffic planning, controlling and data management for Slovak railways

Design, development and maintenance of several large information systems and software tools which serves in many branches of railway transport.

KANGO, Kmen, Expert - Infrastructure data collecting systems

ZONA, SENA, EDYN - railway schedule planning systems

MET – business train route editor

KANGO-GVD – improved railway schedule planning for Czech railways.

GTN - IS supporting the dispatch and remote track control. Currently the 3rd generation of this system works on nearly 6000 km of Czech and Slovak railways.

wVis - Train connection searching system.

EboEdit ERES – railways interlocking and signaling systems configuration Editor.



Agent-based simulation of transportation terminals

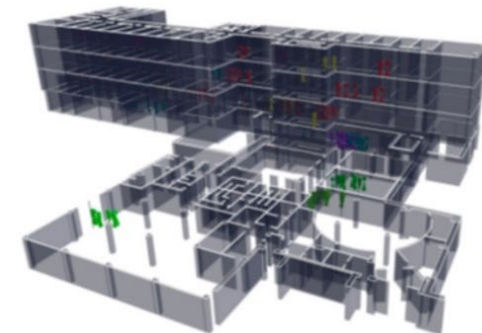
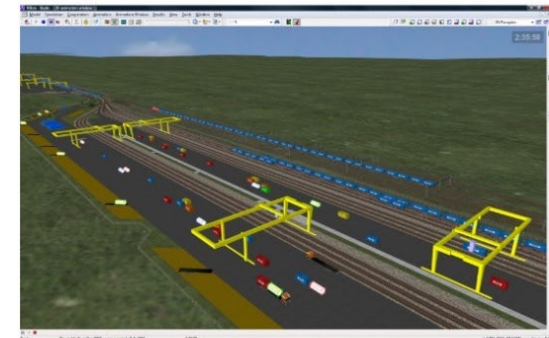
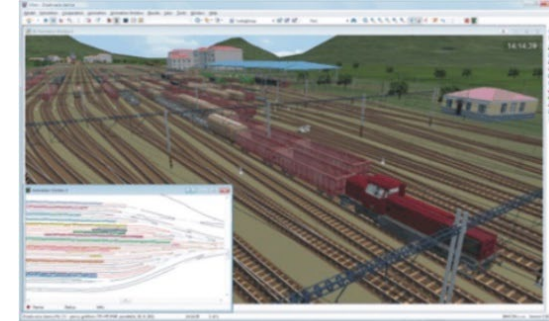
Villon simulation tool – a generic detailed microscopic simulation model of a transportation terminal

PedSim - simulation tool for modelling movements and behavior of pedestrians at the microscopic and macroscopic level

OptSim - tool that combines optimization and simulation approaches for modelling of city public transport

Modelling and simulation of various marshaling yards and terminals for railway operators and industrial partners in Switzerland, France, Italy, Germany, Czech Republic and Slovakia

We are looking for the consortium partners for the projects based on Gaia – X rules and Principles

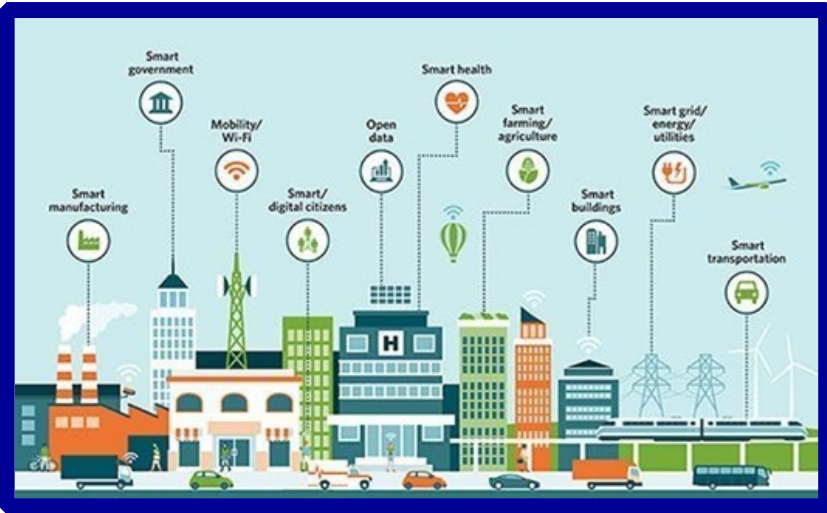


Dissiminate and communicate in Slovakia with Gaia-X Hub Slovakia

Cooperation



Europe



Sustainability



—
Thank you!

Overview of the Gaia-X Mobility dataspace landscape in Europe

Mobility Initiatives The Netherlands



Peter Verkoulen

Programme Manager Gaia-X NL Hub and TNO



Dutch mobility ecosystem

NL has a rich and diverse ecosystem concerning the transition towards safe, efficient and sustainable mobility in the digital society. Some examples:

- An active government, a.o. the ministries of Infrastructure & Water Management, Economic Affairs
- We participate in the FEDeRATED project (EU CEF) - <http://federatedplatforms.eu/>
- www.connekt.nl: the independent network for smart and sustainable mobility (Topsector Logistics)
- www.TNO.nl, independent organization for applied research, ICT and Transport & Traffic
- www.nlaic.com: Dutch AI Coalition: working groups on data sharing and on mobility/logistics
- Several “Growth Fund” initiatives, e.g. Digital Infrastructure for Future-proof Mobility
- www.DataSharingCoalition.eu: several logistics/mobility use cases
- www.DutchBlockchainCoalition.org: focus are mobility & logistics, several use cases
- ... and of course the Dutch Gaia-X hub: www.gaia-x.nl – ambition to connect initiatives

And we work in an international context, e.g. Digital Transport and Logistics Forum (DG-MOVE)

TNO: an integral approach

TNO Traffic and Transport Roadmaps

- SMART and Safe Traffic and Transport
 - Societal impact for accessibility and liveability
 - Smart mobility and logistics
 - Smart vehicles (CCAM – Connected Cooperative Automated Vehicles)
 - Smart Mobility Research Centre SMRC
- Sustainable Traffic and Transport
 - Sustainable Mobility and Logistics
 - Sustainable Vehicles
 - Green performance of ships

In close cooperation with TNO ICT and other units

www.TNO.nl/en/

Connekt: www.Connekt.nl/en/home



CONNEXT AFFILIATION

[MORE INFORMATION](#)



LEAN AND GREEN LOGISTICS

[MORE INFORMATION](#)



LEAN AND GREEN SYNCHROMODAL

[MORE INFORMATION](#)



NETHERLANDS' ITS OVERVIEW

[MORE INFORMATION](#)



SMART MOBILITY & ITS STEERING GROUP

[MORE INFORMATION](#)



NETWORK ACTIVITIES

[MORE INFORMATION](#)



5 NOVEMBER GROUP

[MORE INFORMATION](#)



GREEN DEAL ZERO EMISSION STADSLOGISTIEK

[MORE INFORMATION](#)



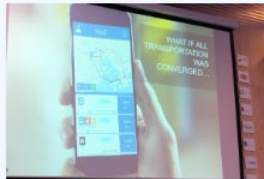
DUTCH ROADS

[MORE INFORMATION](#)



YNOT EXCHANGE PROGRAM

[MORE INFORMATION](#)



MOBILITY AS A SERVICE

[MORE INFORMATION](#)



YNOT

[MORE INFORMATION](#)



TOP SECTOR LOGISTICS

[MORE INFORMATION](#)

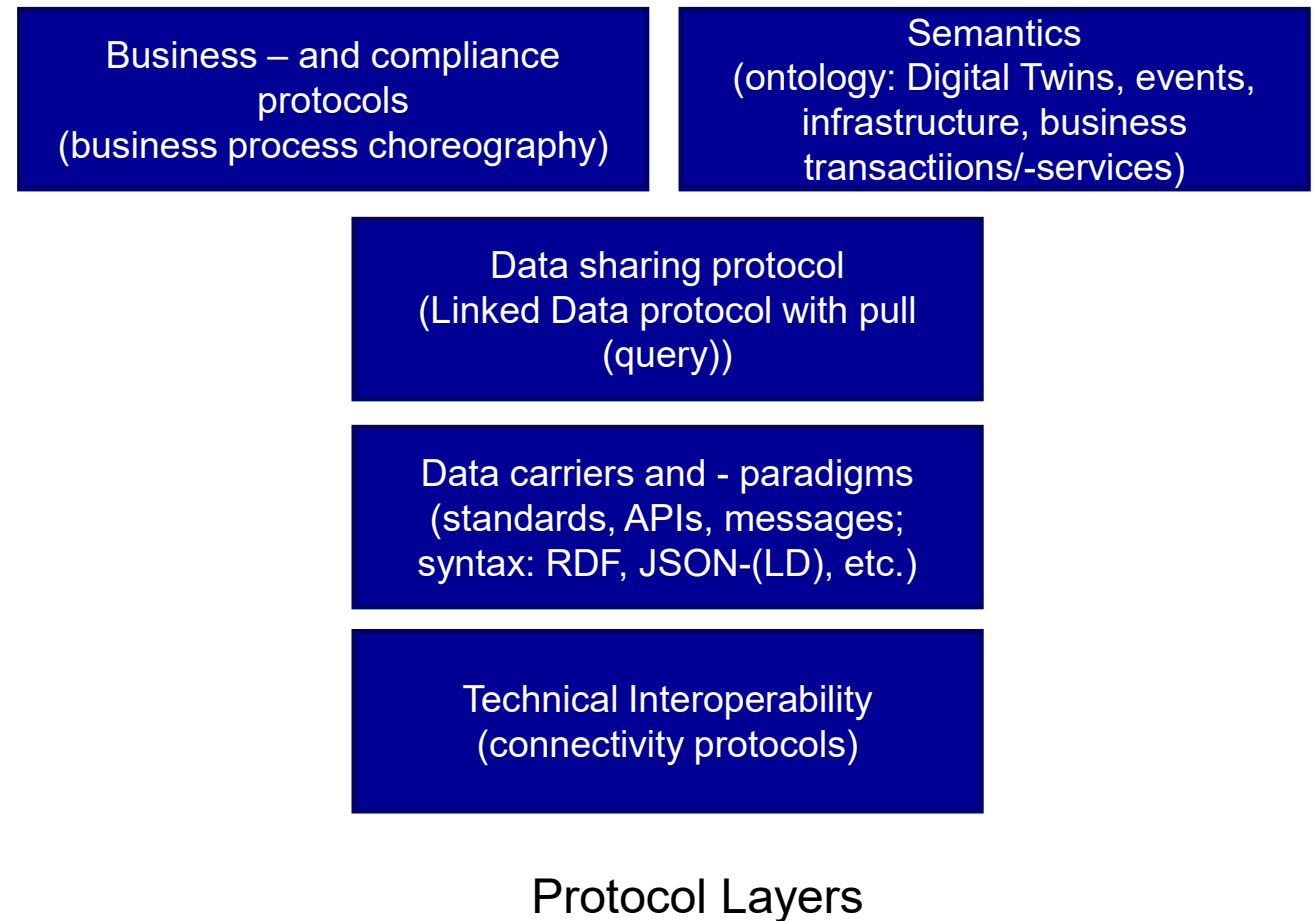
FEDeRATED

We participate in the FEDeRATED project (EU CEF) - <http://federatedplatforms.eu/>, in some of the 23 Living Labs like:

- Working on the Basic Data Sharing Infrastructure (BDI)
- eGovernment Logistics
- Data Exchange Facility Logistics

EU Mobility Data Space (for freight) – a federated network of platforms developed by DTLF

- Builds upon the European Interoperability Framework
- Part of the EU data strategy and – data space
- Principles: open, neutral, level playing field
- Protocols between platforms and peer-to-peer solutions based on an agreed architecture
- Includes security (persons, systems)



Dutch Blockchain Coalition – mobility track

Non-profit triple helix initiative that is exploring the role of decentralised technologies within the Dutch mobility ecosystem. This includes the exploration of the most recent Gaia-X architecture.

Working in close cooperation with the Ministry of Infrastructure & Water Management and other public and private stakeholders. F.i. on using decentralised technologies in Mobility as a Service solutions.



Thank you!

Contact: Peter.Verkoulen@tno.nl or hub@gaia-x.nl

Overview of the Gaia-X Mobility dataspace landscape in Europe

Spanish Mobility initiatives

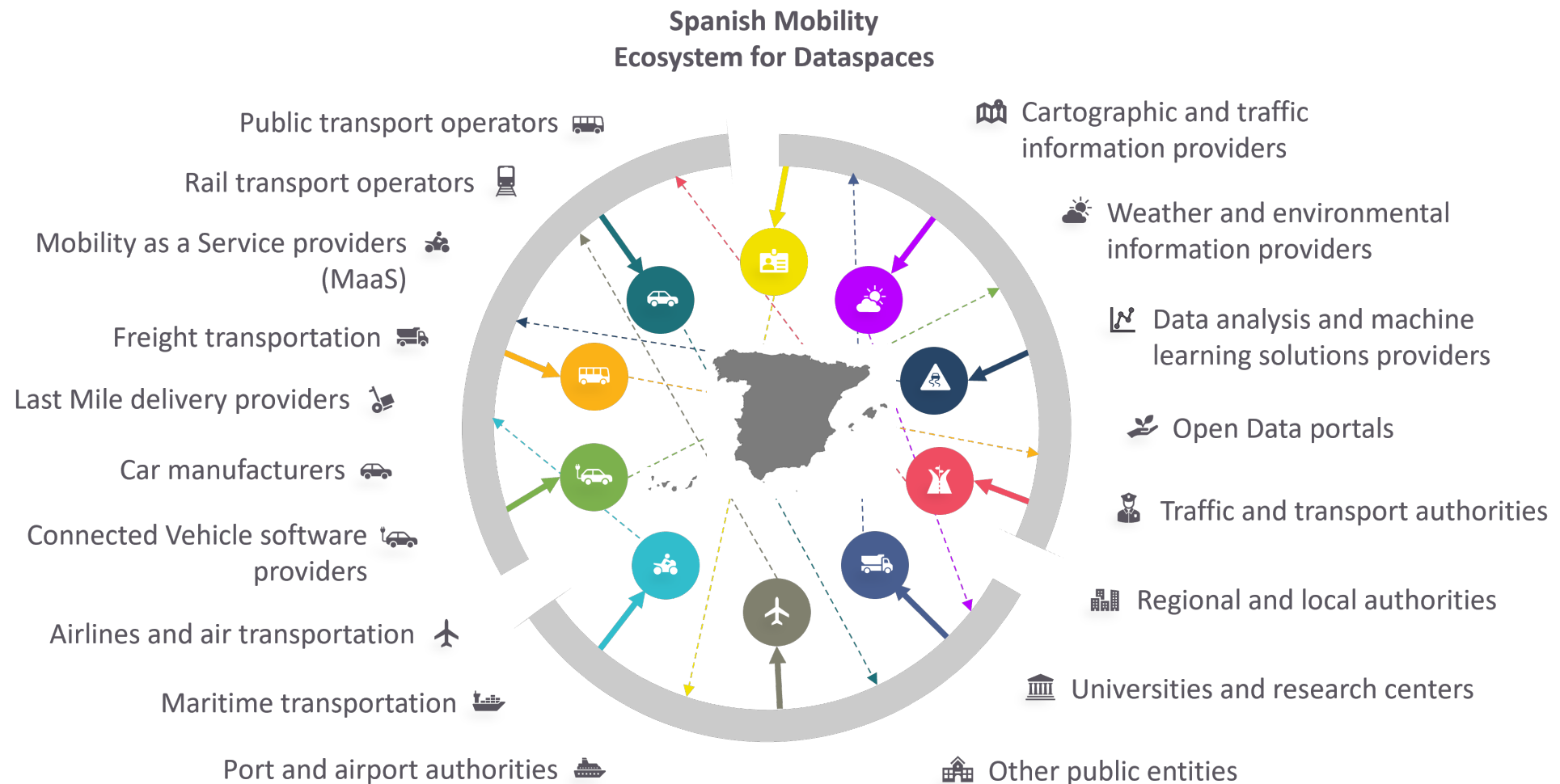


Rizkallah Tuma

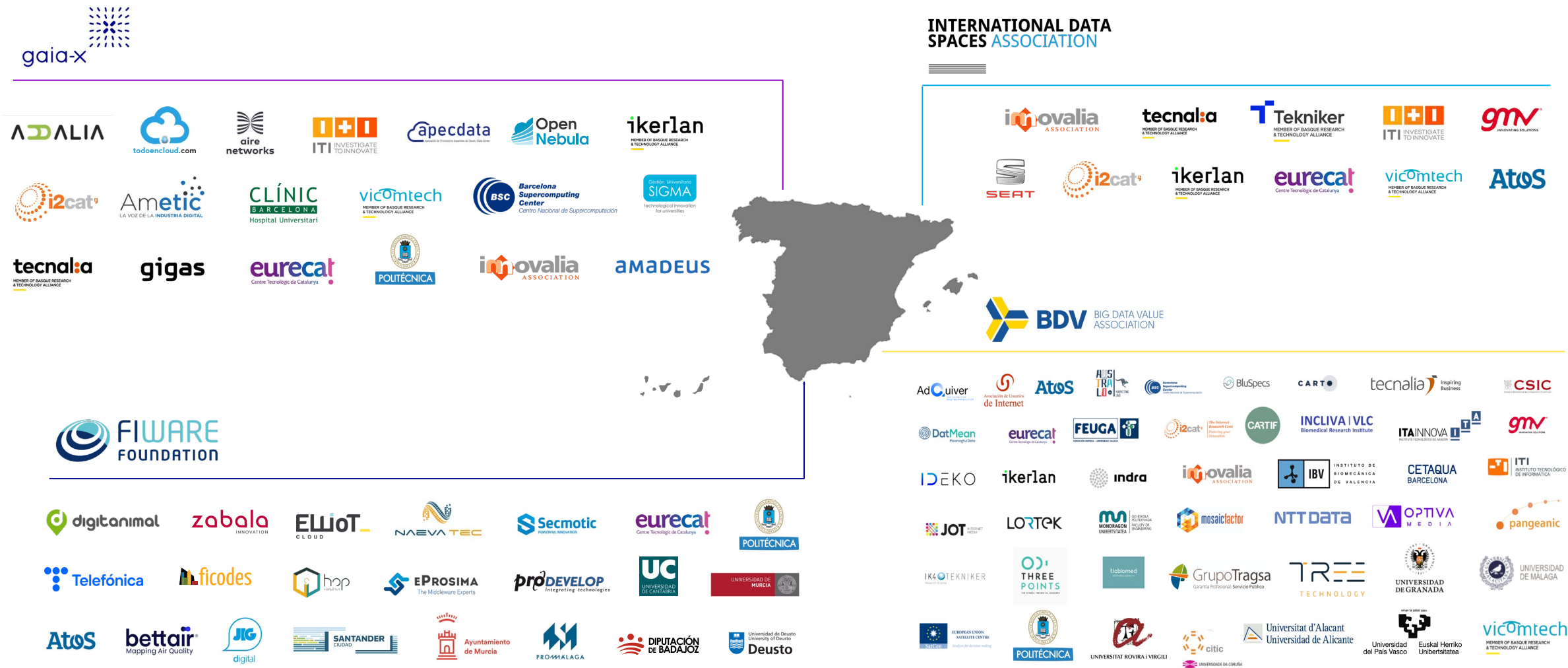
PhD, Senior Big Data Researcher, i2CAT Foundation



A diverse Spanish ecosystem of data providers and consumers for mobility data spaces



Strong Spanish R&D capacity for developing dataspaces



Spanish mobility data to fuel development of dataspaces

<https://datos.gob.es/en/blog/open-data-spanish-mobility-strategy>

COMMITMENTS RELATED TO DATA AND AI IN SPAIN'S "SECURE, SUSTAINABLE, CONNECTED MOBILITY STRATEGY 2030"

Publication of open mobility data from MITMA in coordination with datos.gob.es

Implementation of the national data access point for multimodal travel

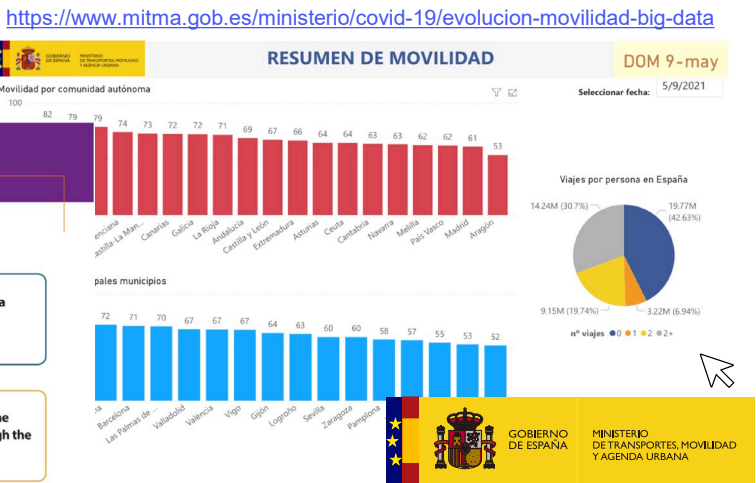
Encourage the development of mobility applications ensuring the availability of quality data in real time

Reuse of information throughout the logistics and transport chain through the SIMPLE platform

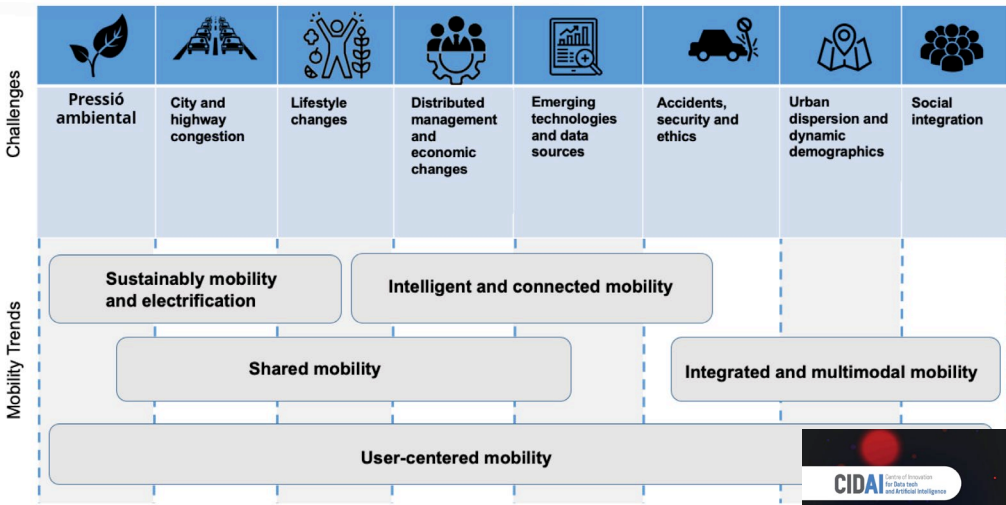
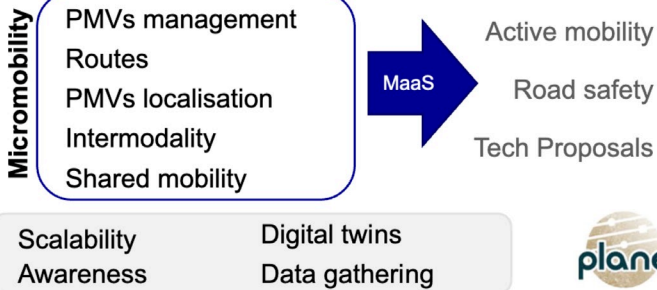
Source: Safe, sustainable, connected Mobility Strategy 2030



datos.gob.es
reutiliza la información pública



<https://www.planetic.es/task-force/movilidad-urbana>



<https://cidai.eu/en/white-papers/>



(examples)

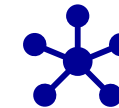
Launch of Europe's newest Gaia-X Hub: Spain



Q4 2021: More than 57 private and public entities worked with the Spanish government to develop the new Gaia-X Spain Association



March 2022: Gaia-X Spanish Hub now a reality with the formation of the new association



Dataspace WG kickoffs for strategic verticals in Spain:

Tourism, Mobility and Industry 4.0, with **Health** and **Agriculture** on the way.

Working groups now to be adopted and coordinated by the new association.

Stakeholder engagement in the Spanish Mobility ecosystem

Dedicated Mobility dataspaces WG launch in Spain:



- Hybrid kickoff workshop in Valencia, February 2022
- 75 private and public organisations participating in event with Spanish government
- Focus on mobility data characterization, governance models, ontologies and use cases.

	Disponibilidad	Calidad y veracidad	Volumen y velocidad	Estandarización e interoperabilidad	Protección de datos personales
 Datos personales de ciudadanos					
 Datos de transporte privado					
 Datos de transporte público					
 Datos de transporte compartido y multimodal					
 Datos de transporte de mercancías					
 Datos de vehículo conectado					
 Datos de transporte aéreo y marítimo					
 Datos de infraestructuras de transporte					
 Datos de tráfico e incidentes					
 Datos complementarios					



AMADEUS

ECCOCCR



Especificaciones de datos más comunes en transporte

- GTFS (general Transit Feed Specification) developed by Google
- GBFS (general Bikeshare Feed Specification)
- MDS (Mobile Data Specification) Open Mobility Foundation
- GOFS (Open data led by Mobility Data)
- TOMP-API (TOMP) (MaaS)
- MDC (Mobility Data Consortium) launched by SAE



La necesidad de compartir no sólo datos, sino también modelos de datos comunes

- Cuando publicamos nuestros datos, ¿no sería buena idea usar siempre las mismas estructuras de datos?



id	stop_id	stop_code	stop_name	lat	lon	stop_url
1	101	101	Alameda	-36.716372	-4.424303	http://www...
2	102	102	Plaza de San Francisco	-36.716372	-4.424303	http://www...

Fuente: Esther Minguela (Localidata)

POLITÉCNICA

Stakeholder engagement in the Spanish Mobility ecosystem

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📄 Datos personales de ciudadanos	🟡	🟢	🟢	🟡	🔴
🚗 Datos de transporte privado	🟡	🟡	🔴	🔴	🔴
🚏 Datos de transporte público	🟢	🟡	🟡	🟡	🟢
🚶 Datos de transporte compartido y multimodal	🟡	🟡	🟡	🔴	🟡
📦 Datos de transporte de mercancías	🟡	🟡	🟡	🔴	🟡
🚚 Datos de vehículo conectado	🟡	🟡	🔴	🟡	🔴
✈️ Datos de transporte aéreo y marítimo	🟡	🟡	🟡	🟡	🟡
🚧 Datos de infraestructuras de transporte	🟢	🟢	🟢	🟢	🟢
🚦 Datos de tráfico e incidentes	🟢	🟢	🟡	🟢	🟡
📊 Datos complementarios	🟢	🟢	🟡	🟢	🟡

ITI INVESTIGATE TO INNOVATE

AMADEUS

ECCOCCR

Asociación Española de la Carretera

Especificaciones de datos más comunes en transporte

- GTFS (general Transit Feed Specification) developed by Google
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- MDS (Mobile Data Specification) Open Mobility Foundation
- GOFS (Open data led by Mobility Data)
- TOMP-API (TOMP) (MaaS)
- MDC (Mobility Data Consortium) launched by SAE

eit Urban Mobility

Gathering use cases

La necesidad de compartir no sólo datos, sino también modelos de datos comunes

- Cuando publicamos nuestros datos, ¿no sería buena idea usar siempre las mismas estructuras de datos?



Fuente: Esther Minguela (Localdata)

POLITÉCNICA

Engagement of existing mobility stakeholder groups:

AmetiC
LA VOZ DE LA INDUSTRIA DIGITAL

ITS ESPAÑA

eit Urban Mobility

(examples)

Engagement on a regional level towards local operators and mobility value chains:

- Public transportation and infrastructure
- MaaS
- Connected Vehicle
- Automotive supply chain
- Urban planning
- Logistics and movement of goods



Success case in Spain: rent-a-car digitalization



—
Samuel Fraga, Data Lead, Eccocar

Why?



*One of the main challenges of MaaS is the **interoperability** between all the players, both private and public organizations, and the **data exchange** between them.*

What is Eccocar doing?



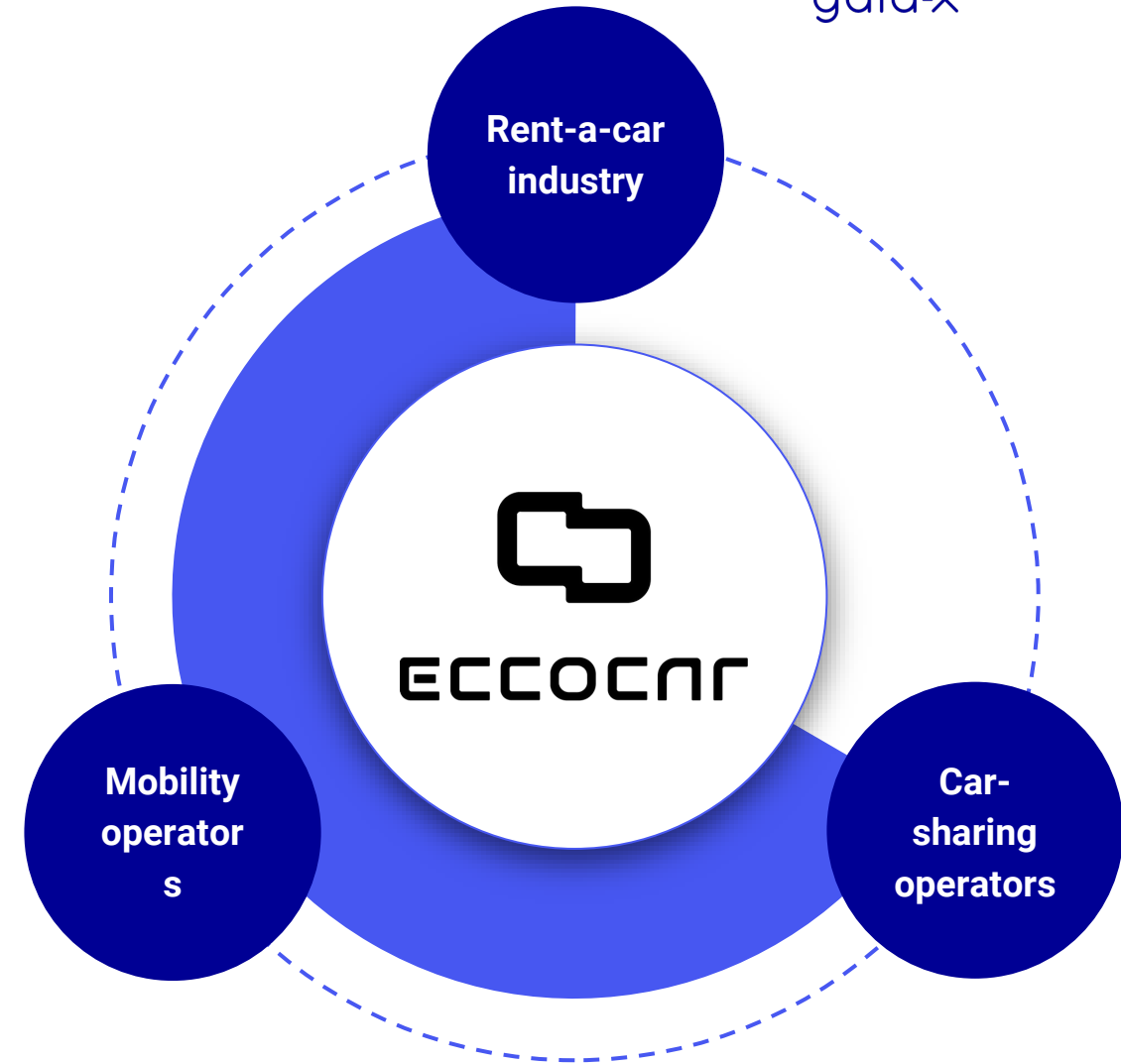
Digitally transform the rent-a-car processes



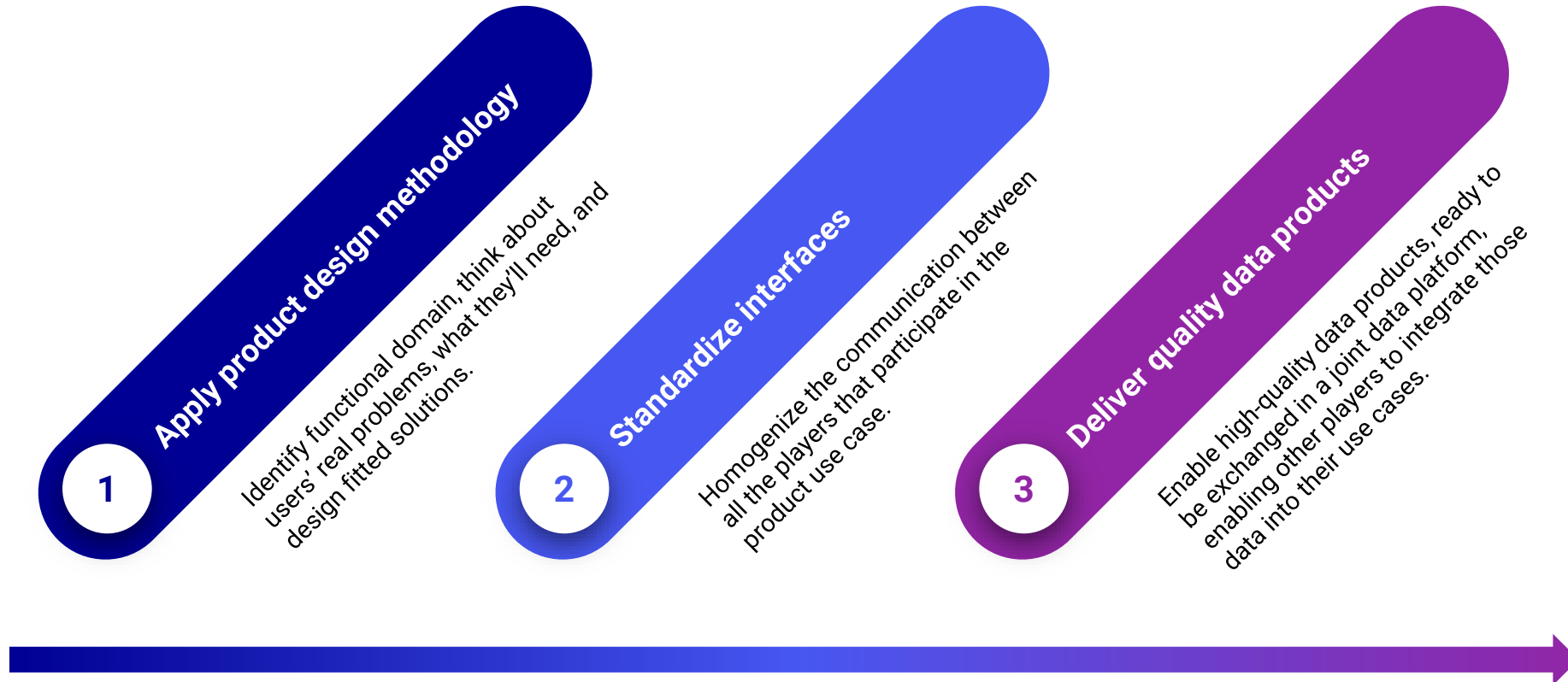
Achieve a better and fully digital user experience



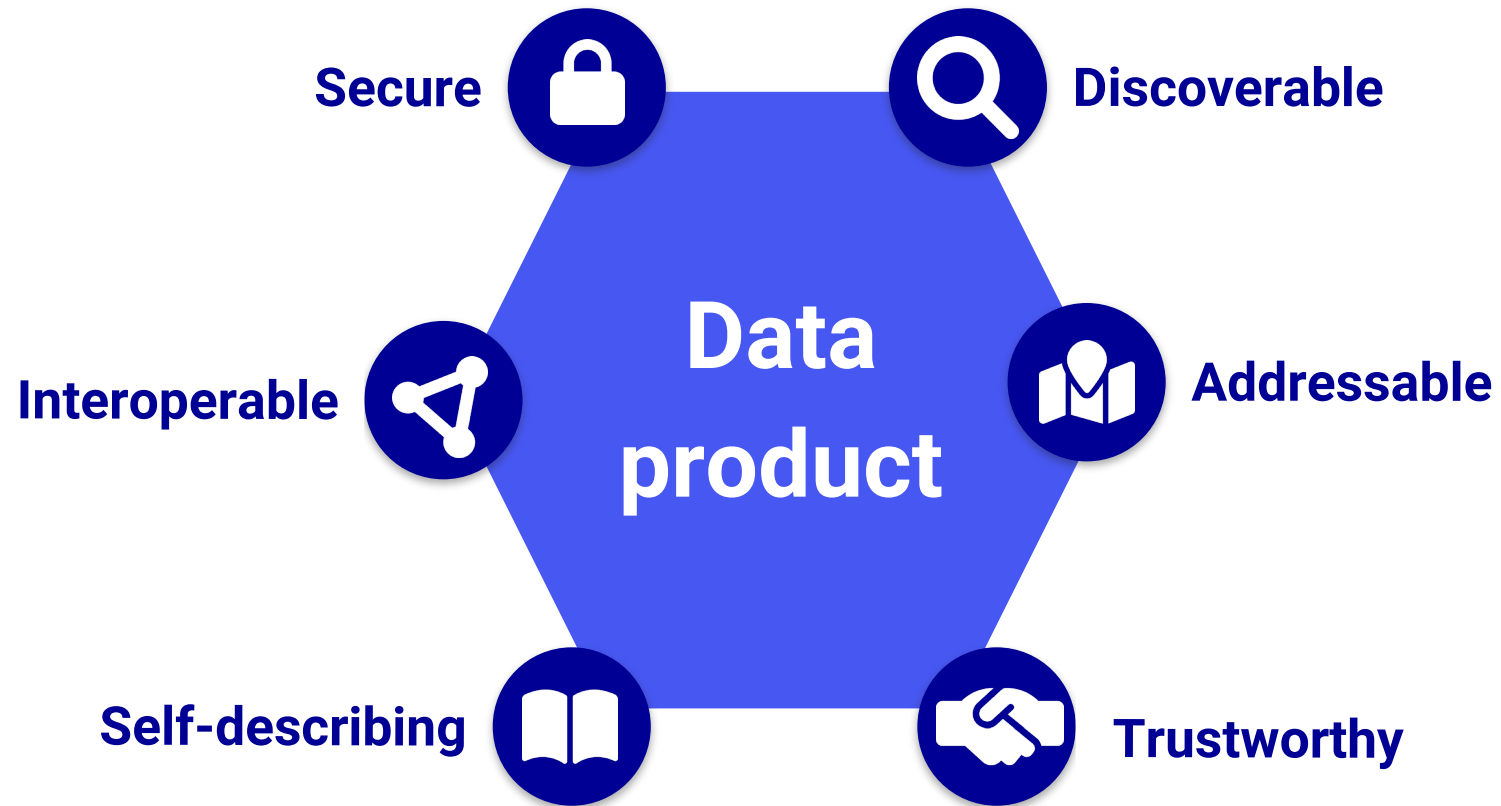
Make data available for intermodal platforms, mobility applications, and other service providers.



How are we doing it?



How are we doing it?



Key takeaways



- **Domains are responsible** for their data products.
- Data products are **natively exchangeable**.
- **Adopt an internal sharing mindset** encourages sharing outside the company.
- **Stop thinking of data as an asset**, and start thinking of it as a product.
- Data as a product is a new vision through which **data can be trusted and used as building blocks** for purposes beyond the domain where they were created.

—
Thank you!

Contact

rizkallah.touma@i2cat.net

samuel.fraga@eccocar.com



www.gaiax.es

Overview of the Gaia-X Mobility dataspace landscape in Europe

Italian Mobility Initiatives



Cristina De Berardinis

Gaia-X Hub Italy Coordinator and Head of Industrial Policies &
Sustainability Confindustria



Overview of the key challenges to address for having successful mobility dataspace

EU Mobility Vision



The common European mobility data space
under the EU data strategy

Kristóf Almásy

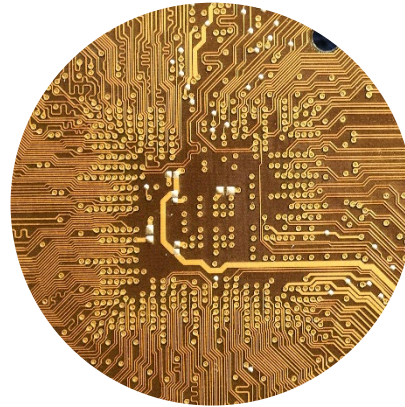
Policy Officer, Unit E4 “Internet of Things”
DG CONNECT, European Commission



Mobility, at the heart of European priorities



+



+



European Green Deal

Reduce greenhouse
gas emissions from
transports
by 90% by 2050

Fit for the digital age

Make mobility smarter
and ensure our digital
sovereignty

Industrial leadership

Globally competitive and
innovative mobility and
transport ecosystem

The mobility data space: at the crossroads of two EU strategies

Data Strategy



Establish a single market for data, ensuring Europe's competitiveness

Enable data sharing as well as practical, 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

→ Implemented in collaboration between **DG MOVE** and **DG CONNECT**

Benefits of sharing mobility data



Easier to find the **most suitable travel options** for **travellers**



Better monitoring, planning and management of traffic and transport infrastructure by **authorities**



Safer mobility: e.g. use of sensor data to alert other vehicles of dangers



Faster **innovation in AI** for transport and mobility (e.g. autonomous driving) by pooling data



New mobility services (e.g. smart parking, charging)



Improved operations: optimised use of vehicles and itineraries in logistics, easier reporting to authorities



Sector coupling: use of electric vehicle data to optimise energy consumption and production

Challenges of sharing mobility data



Reluctance to share data:
security, competition
concerns, lack of trust



Heterogeneity and diversity
of stakeholders, transport
modes, data types, etc.

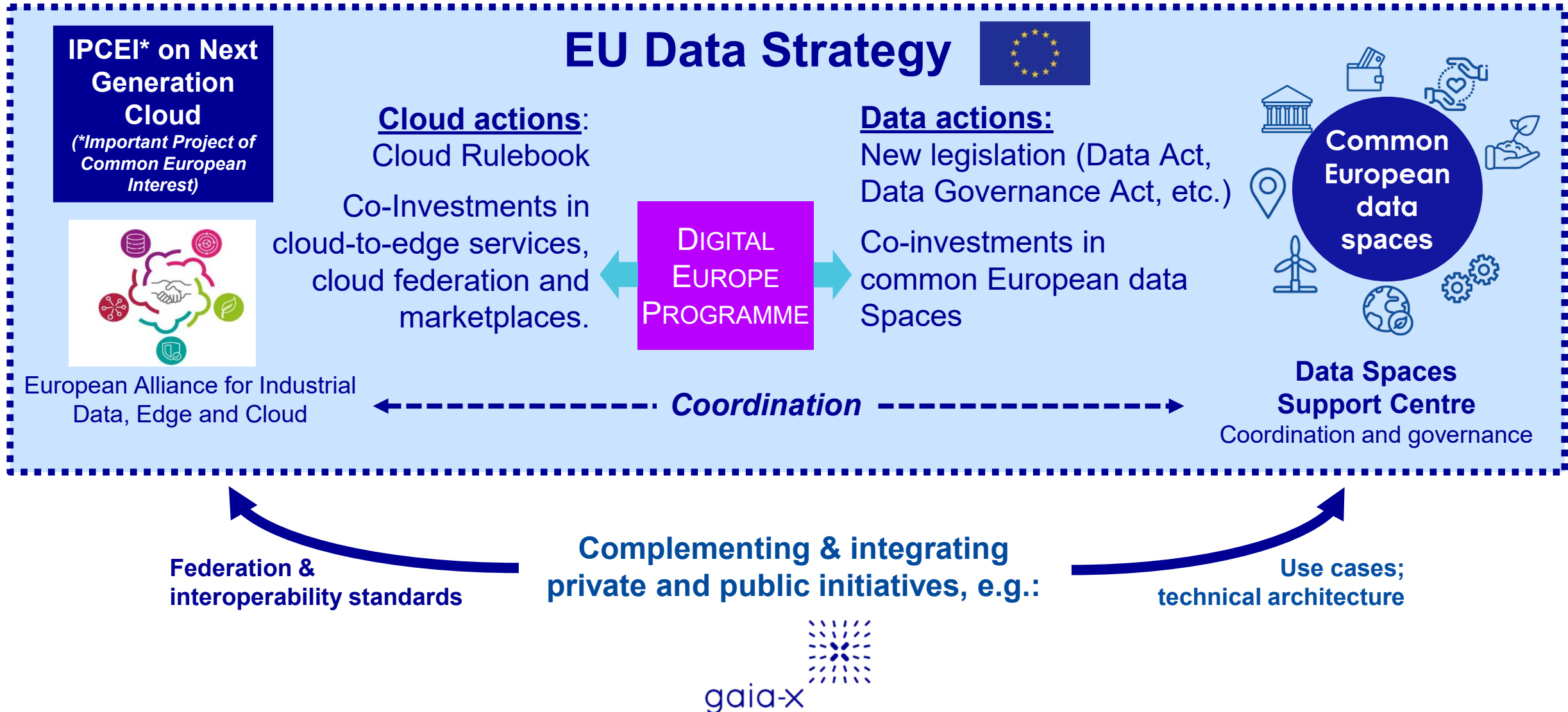


Fragmentation, lack of
access and of interoperability



Dominance of large
platforms capturing increasing
share of value

The European Data strategy



Cross-sectoral data policy: some key aspects



Data Act

Consumers/businesses can **access data** generated by their connected devices, and **give access to 3rd parties**

Public bodies can **use privately held data for emergencies** and exceptional needs

The Commission can adopt **technical specifications** to ensure **interoperability**

Proposed in Feb. 2022



Data Governance Act

Defines **obligations for neutral data intermediaries** to facilitate their development

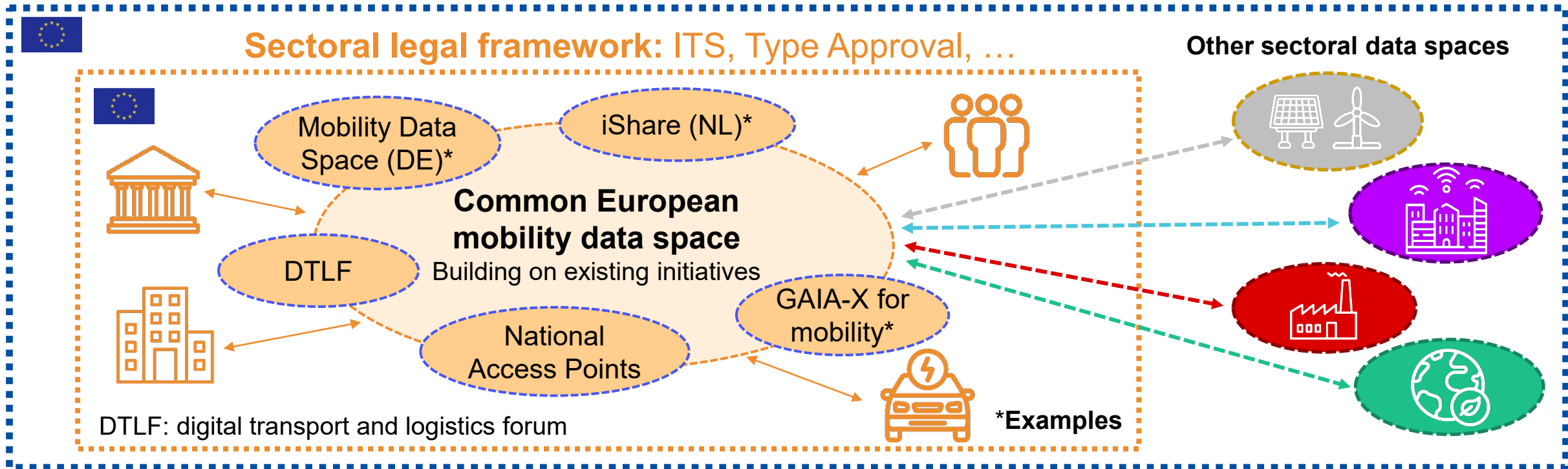
Creates a **European Data Innovation Board**, in charge of proposing cross-sectoral guidelines for common European data spaces

Political agreement Nov. 2021

Enablers for a digitalised mobility

gaia-x

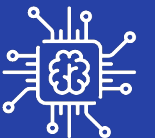
Horizontal legal framework: Digital Markets Act, Data Governance Act, high-value datasets, Data Act, ...



Key enabling digital technologies: Cloud-edge, 5G, AI, electronics



Supported by Horizon Europe, Digital Europe,
Connecting Europe Facility, Recovery and Resilience Facility, ...



Key aspects for a common European mobility data space



Build on what exists

Many ecosystems and platforms (national, private, local, etc.)

Around 30 regulatory initiatives

Need to accelerate efforts to allow interoperability, including across sectors and across Member States

Seize economic opportunities

Value creation opportunities, notably based on voluntary data sharing

Need for viable business models, taking into account competition between businesses


Need to lower entry barriers and make participation easy

Ensure trusted data sharing

Importance of data sovereignty, trust, security and privacy.

Convincing companies to participate in data spaces requires ensuring they stay in control of their data.

Preparatory action for a European data space for mobility

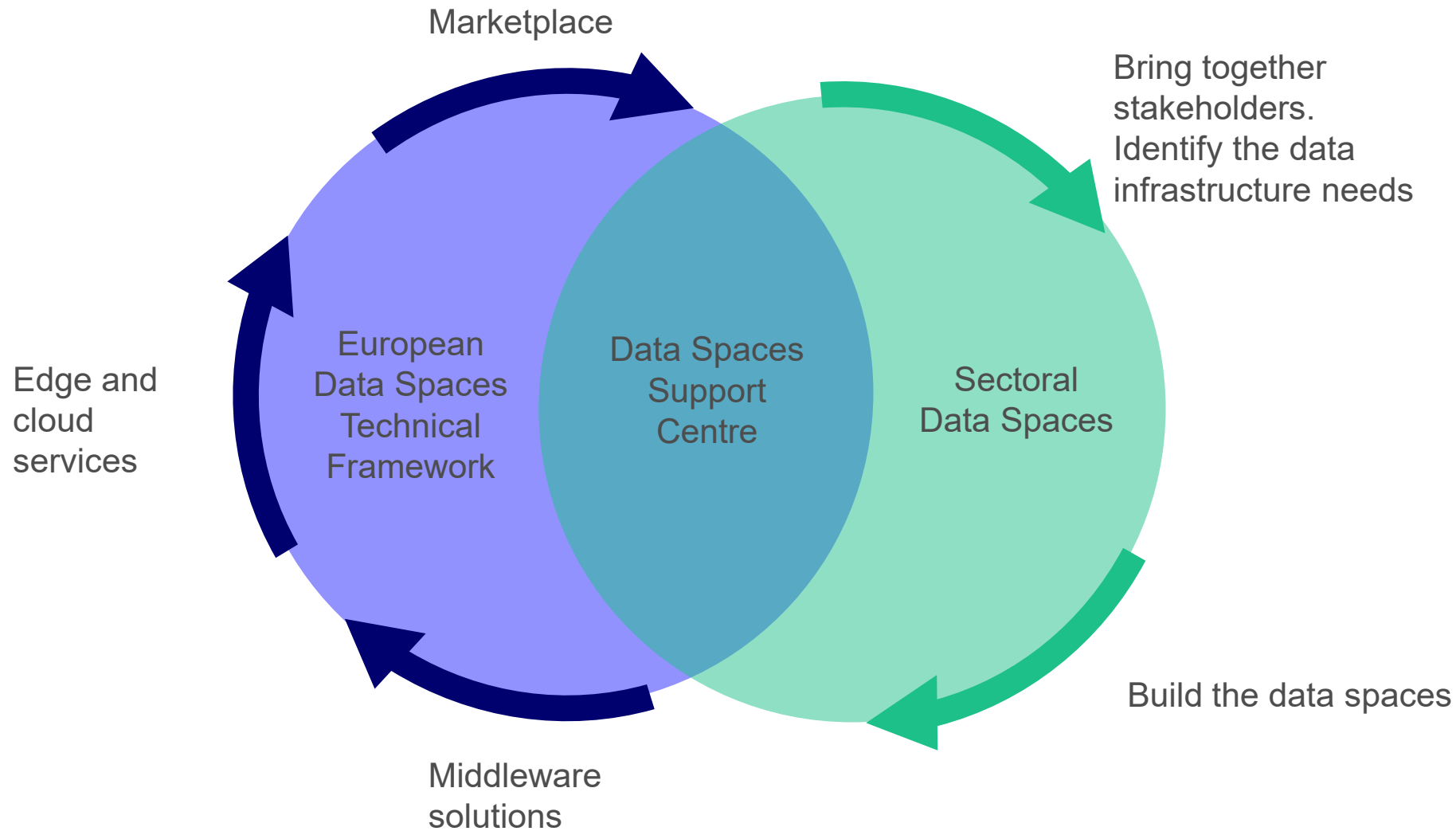

Results: end
of May 2022

- Support the creation of a **technical infrastructure** combined with **governance mechanisms** to facilitate **cross-border access to key data resources**.
- **Inventory** of existing mobility data initiatives, ecosystems and platforms
- Identify **common building blocks** and explore **options for a common framework** for data sharing in the mobility sector, including economic models
- Built and operated in **full compliance with existing and upcoming EU legislation** in the transport and mobility sector
- Work with the Data Spaces Support Centre and the Alliance for Industrial Data, Cloud and Edge to **ensure alignment with the emerging ecosystem of data spaces**

Other relevant actions

- ✓ **Deployment action** under the **third call of DIGITAL** (tentatively planned for September 2022) with a focus on urban mobility data
- ✓ **Technical support action** for the development of the common European mobility data space under **Connecting Europe Facility** (CEF)
- ✓ **Coordination mechanism to federate the National Access Points** under **CEF**

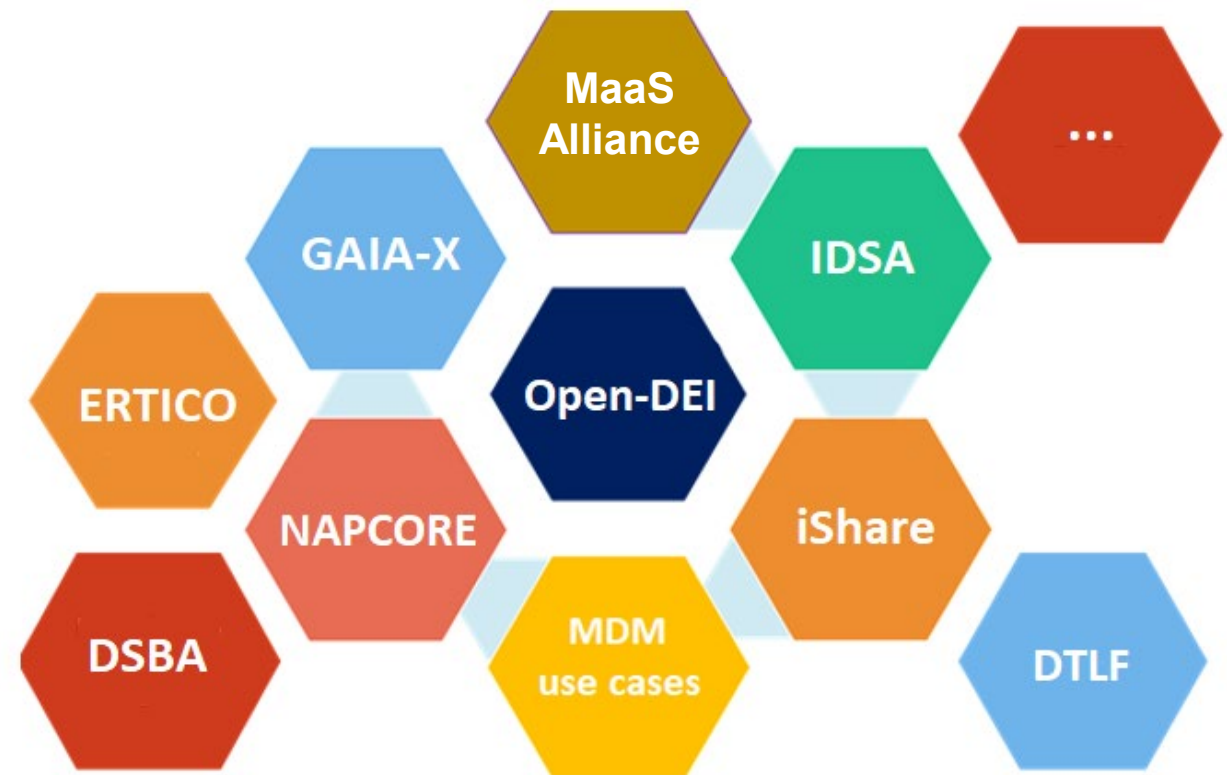
Data Spaces deployment in DIGITAL



Leveraging the momentum



Ongoing data spaces-related initiatives across Europe



Converging guidelines worldwide

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](#).

Funding and tenders portal

[DIGITAL-2021-CLOUD-AI-01-Data space for mobility](#)

Staff working document on data spaces

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

Workshop on a common European mobility data space (2 December 2021)

<https://digital-strategy.ec.europa.eu/en/events/workshop-common-european-mobility-data-space>



© **European Union 2020** (slides 3-15)

Credits: Slide 4, picture: jonathanfilskov-photography - iStock Getty Images Plus; Slide 5, icons: Smashicons, freepik, wanicon, Vichanon Chaimsuk, flat icons, GOWI; Slide 8, picture: Elena Mozhvilo

Thank you!

Kristof.almasy@ec.europa.eu

Overview of the key challenges to address for having successful mobility dataspace

EU Mobility Vision



Edoardo Felici

Policy Officer (Seconded National Expert) at European Commission,
DG MOVE



SUSTAINABLE & SMART
MOBILITY STRATEGY



“

Through the implementation of this strategy, we will create an irreversible shift to zero-emission mobility while making our transport system more efficient and resilient.

EUROPEAN COMMISSIONER FOR MOBILITY AND
TRANSPORT ADINA VĂLEAN

”

Context

- The European Green Deal calls for a 90% reduction in greenhouse gas emissions from transport by 2050, to help the EU become the first climate neutral continent.
- To this end, the Commission adopted the Strategy for Sustainable and Smart Mobility to in December 2020.
- In the meantime, transport was amongst the sectors hardest hit by the Coronavirus pandemic.
- It has shown that we need to continue to work on the future of our European transport system so that it can quickly recover from the severe impact of this crisis.
- We need to set out much needed reforms, policies and actions to support the sector.

Milestones: 2030-2035

By 2030

- **Min. 30 million zero-emission cars** and **80 000 zero-emission lorries** in operation
- **Min. 100 climate neutral cities**
- **Scheduled collective travel under 500 km** should be **carbon-neutral** within the EU
- **Doubled high-speed rail** traffic, rail freight traffic increases by 50%
- Transport by **inland waterways & short sea shipping** increases by 25%
- **Rail & waterborne-based intermodal** will **be able to compete** on equal footing with road-only transport in the EU
- **Paperless freight** transport
- **Automated mobility** deployed at a large scale
- Integrated electronic **ticketing**
- Operational **multimodal Trans-European Transport Network** equipped for sustainable and smart transport with high speed connectivity (**core** network)
- Zero-emission **ocean-going vessels ready for market**

By 2035

- **Large zero-emission aircraft** ready for market

Milestones: 2030-2035

By 2050

- **Nearly all cars, vans, buses** as well as **new heavy-duty vehicles** will be **zero-emission**
- **Doubled rail freight** traffic, **tripled high-speed rail** traffic
- Transport by **inland waterways & short sea shipping** increases by **50%**
- **External costs** of transport within the EU will be **covered by the transport users**
- **Death toll** for all modes of transport in the EU close to **zero**
- Operational **multimodal Trans-European Transport Network** equipped for sustainable and smart transport with high speed connectivity (**comprehensive network**)

Flagship areas



AN IRREVERSIBLE
SHIFT TO ZERO-
EMISSION MOBILITY



A MORE RESILIENT SINGLE
EUROPEAN TRANSPORT
AREA: FOR INCLUSIVE
CONNECTIVITY



SMART MOBILITY -
ACHIEVING SEAMLESS,
SAFE AND EFFICIENT
CONNECTIVITY



INTERNATIONAL -
THE EU AS THE
WORLD'S
CONNECTIVITY HUB



Flagship areas



**AN IRREVERSIBLE
SHIFT TO ZERO-
EMISSION MOBILITY**

Flagship 1 - boosting uptake of zero-emission vehicles, renewable & low-carbon fuels and related infrastructure

Flagship 2 - creating zero-emission airports and ports

Flagship 3 - making interurban and urban mobility more sustainable and healthy

Flagship 4 - greening freight transport

Flagship 5 - pricing carbon and providing better incentives for users



**SMART MOBILITY -
ACHIEVING SEAMLESS,
SAFE AND EFFICIENT
CONNECTIVITY**



**INTERNATIONAL -
THE EU AS THE
WORLD'S
CONNECTIVITY HUB**



**A MORE RESILIENT SINGLE
EUROPEAN TRANSPORT
AREA: FOR INCLUSIVE
CONNECTIVITY**

Flagship 6 - Making connected and automated multimodal mobility a reality

Flagship 7 - Innovation, Data and AI for smart mobility

Flagship 8 – Reinforcing the Single Market

Flagship 9 - Making mobility fair and just for all

Flagship 10 - Enhancing transport safety and security

Action plan



Action plan with a list of 82
concrete policy actions
linked to the flagship areas

“Putting European Transport on track for the future”

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

Digital actions in the Sustainable and Smart Mobility Strategy



Flagship 6 - Making connected and automated multimodal mobility a reality

36. Revise Delegated Regulation 2015/962 on real time traffic information services to extend geographical coverage and datasets; revise Delegated Regulation 2017/1926 on multimodal travel information services to include mandatory accessibility of new dynamic datasets

37. Assess the need for regulatory action on rights and duties of multimodal digital service providers and issue a recommendation to ensure public service contracts do not hamper data sharing and support the development of multimodal ticketing services, together with an initiative on ticketing, including rail ticketing

38. Revision of the Directive on Intelligent Transport Systems, including a multimodal ticketing initiative

40. Assess the need for an agency or other body to support safe, smart and sustainable road transport operations

Flagship 7 - Innovation, data and AI for smart mobility

45. Develop/renew R&I partnerships: Connected, cooperative and automated mobility; Shift2Rail; SESAR; Waterborne; Clean Aviation; Clean Hydrogen Partnership; Smart Networks and Services; AI, Data and Robotics; and Key Digital Technologies.

48. Set up a high-level group ('New Mobility Tech Group') as a first step toward the development of a coherent EU approach and a set of recommendations on facilitating testing and trials of emerging mobility technologies and solutions in the EU ('European Mobility Test Beds')

49. Develop a common European mobility data space (*horizontal initiative*) and establish a stronger coordination mechanism for the national access points established under the ITS Directive

50. Set out an AI roadmap for mobility

Flagship 8 – Reinforcing the Single Market

55. Revision of the Regulation on the Trans-European Transport Network (TEN-T)

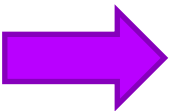
Flagship 9 – Making mobility fair and just for all

63. Review of the passenger rights regulatory framework, including to ensure its resilience to extensive travel disruptions, and including options for multimodal tickets

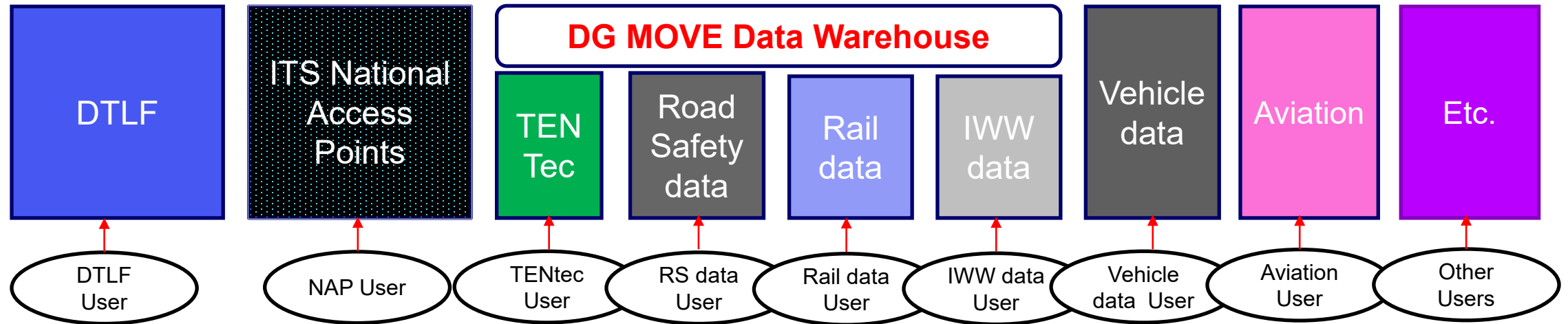
69. Issue recommendations for the transition to automation and digitalisation and their impact on the transport workforce

Flagship 10 - Enhancing transport safety and security

75. Adapt the eCall legal framework to new telecommunication technologies; consider the extension of eCall to powered two wheelers, trucks, buses and tractors



Data domains within DG MOVE



- Many transport data ecosystems based on different legislation, serving different user needs...
- The Mobility Data Space will need to first “bind” these domains together through common metadata and common access node(s), in coherence with the development of other related data spaces, and then harmonise the different initiatives into a common ecosystem.
- Currently finalising our reflection, working on a Commission document to announce different Commission actions related to the creation of the Mobility Data Space (pending validation).

Thank you!

edoardo.felici@ec.europa.eu

Overview of the key challenges to address for having successful mobility dataspace

Technical components



Stefan Ettl

Cloud Architect, BMW Group IT – Data Transformation, KI, Daten-, DevOps-Plattformen Extended Enterprise, Gaia-X (FG-260)

Patrick Hebant

Associate Director Data, Amadeus



DSBC Technical WG – Mission Statement

To support the success of Data Spaces implementation projects within GAIA-X

Sharing of knowledge and implementation experience.

Convergence of participants towards interoperable solutions.

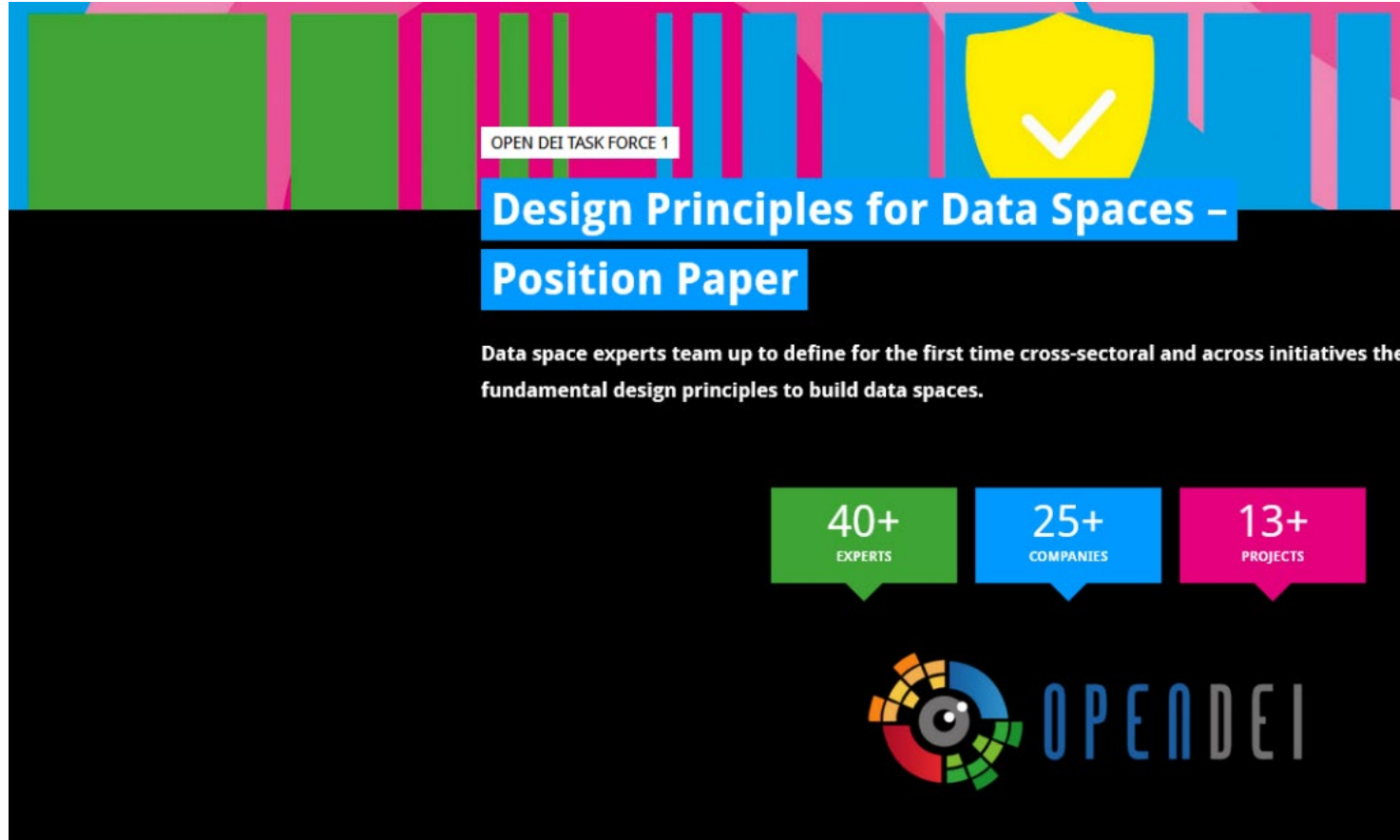
Capitalizing on assets through open-source projects for the interoperability foundation layer.

Federated approach aiming to remove any lock-in components.

Collaborate on Dataspace Design Principles with Governance WGs.

Influencing GAIA-X towards architectures and solutions that enable the success of interoperable Data Spaces and their Use-Cases.

DSBC Technical WG – Why Open DEI?




OPEN DEI TASK FORCE 1

Design Principles for Data Spaces – Position Paper

Data space experts team up to define for the first time cross-sectoral and across initiatives the fundamental design principles to build data spaces.

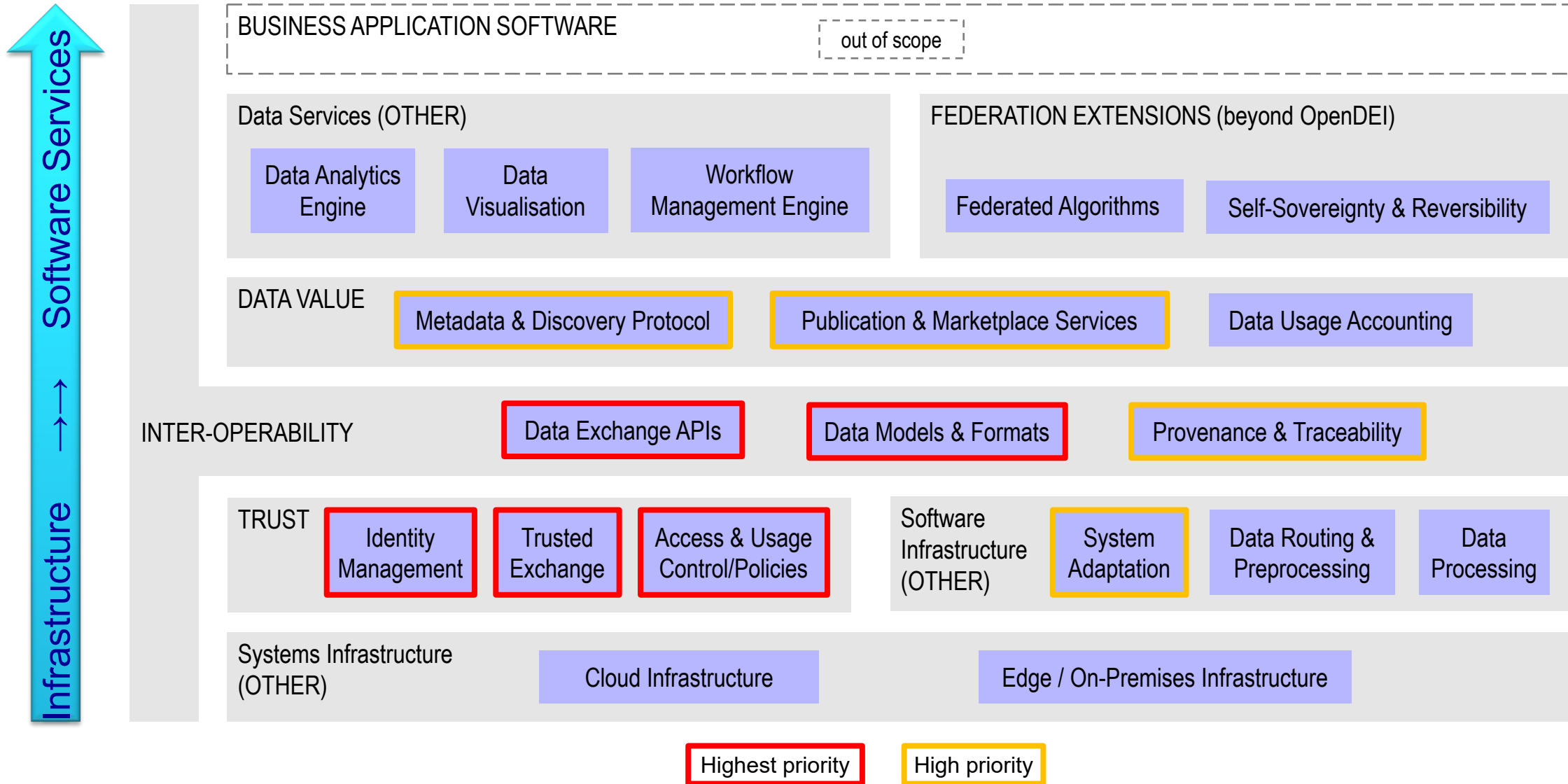
40+ EXPERTS	25+ COMPANIES	13+ PROJECTS
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 OPENDEI

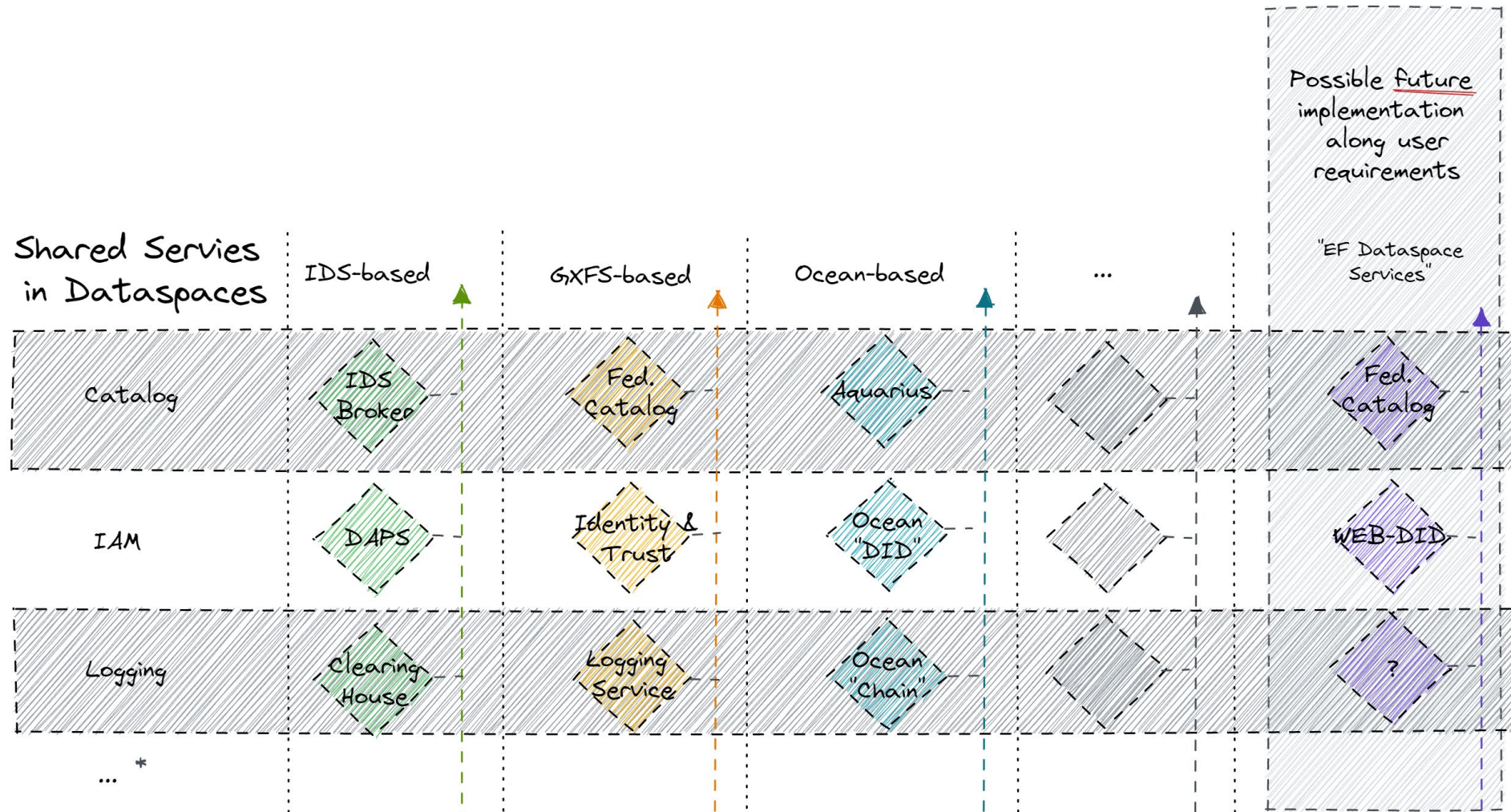
The graphic features a header with a yellow shield icon containing a white checkmark. Below this, the title 'Design Principles for Data Spaces – Position Paper' is displayed in white text on a blue background. A black box contains the subtitle 'Data space experts team up to define for the first time cross-sectoral and across initiatives the fundamental design principles to build data spaces.' Below the subtitle, three colored boxes (green, blue, and pink) show statistics: '40+ EXPERTS', '25+ COMPANIES', and '13+ PROJECTS'. At the bottom, the Open DEI logo is shown, consisting of a circular icon with colored segments and the text 'OPENDEI'.

<https://design-principles-for-data-spaces.org/>

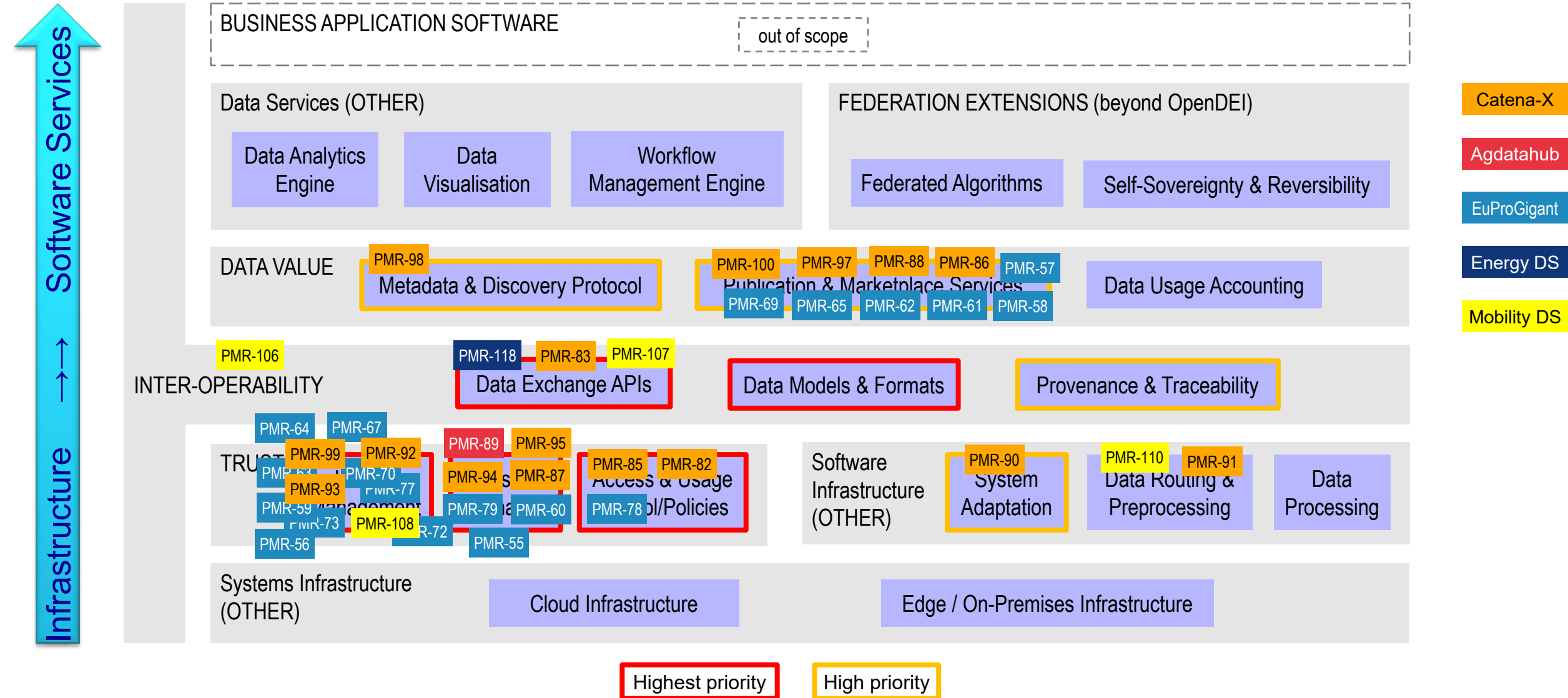
DSBC Technical WG – Functional architecture & building blocks



DSBC Technical WG – Reference Technology Frameworks



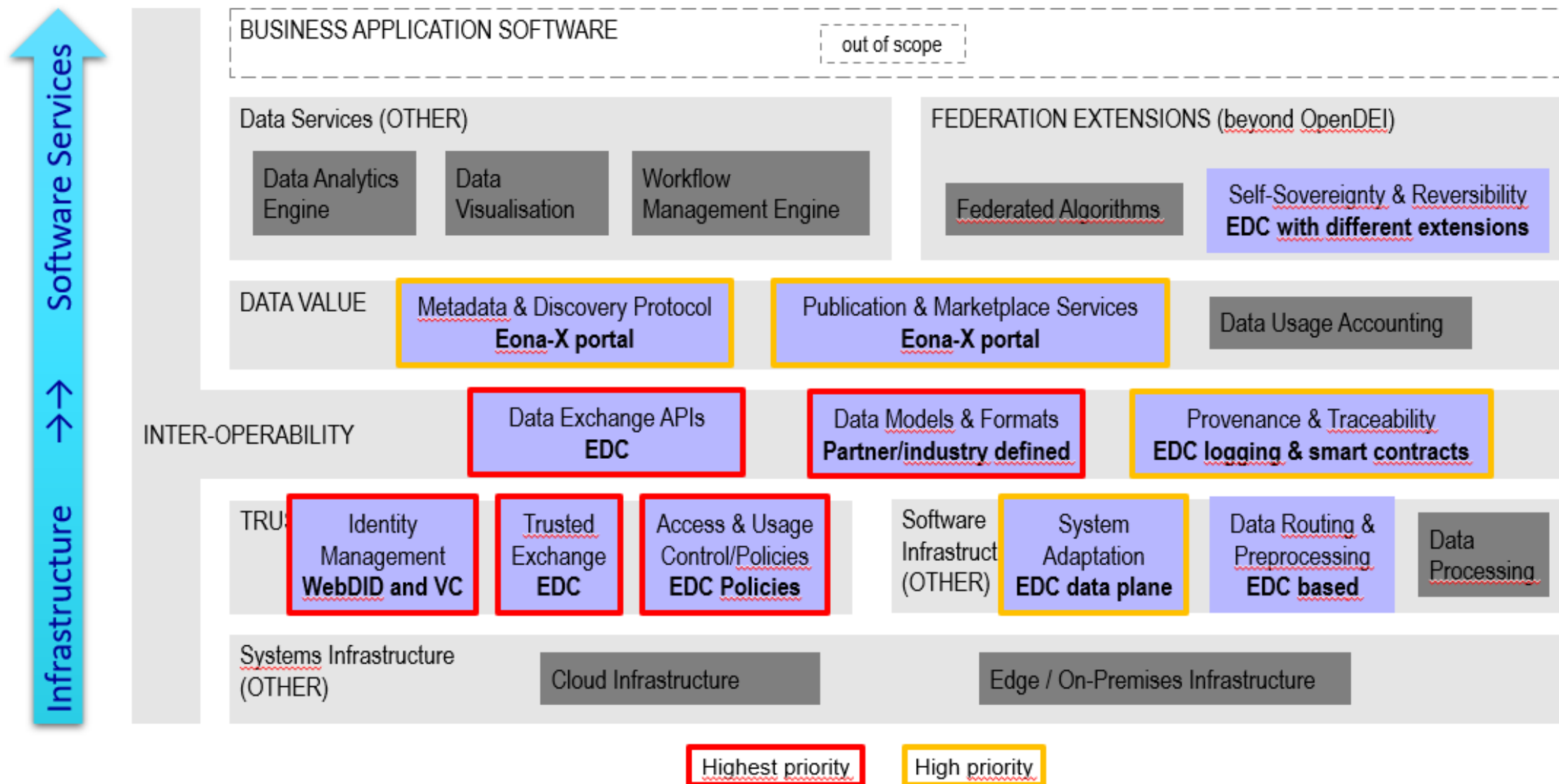
DSBC Technical WG – Technical and functional requirements



DSBC Technical WG – Catalogue of existing dataspaces

Building Blocks		Sub-category (by DSBC Technical WG)	Priority	Catena-X	DASES	Agdatahub	Omega-X (Energy)	ENERSHARE (Energy)	energy data-X (Energy)	EONA-X	Mobility Data Space
Homepage URL :				catena-x.net							https://mobility-dataspace.eu/
FEDERATION EXTENSIONS (beyond OpenDEI)	Self-Sovereignty & Reversibility		4	EDC with different Extensions (not reversible; not yet SSI)	Did and VC with Eth (metamask + did-iwt-vc)					EDC with different Extensions (WedDID and VC)	DSC Connector with DAPS / CA
	Federated Algorithms		4	n.a.	Services provided by Prometheus-X Portal					n.a.	currently n.a.
DATA VALUE	Data Usage Accounting		3	Local (at Partner) EDC with Policies & Contract Definitions	Not defined					tbc	Usage Policies and Contracts defined at the connector side
	Publication & Marketplace Services	(need to find a placeholder in Open DEI for monetization features, or extend it)	2	CX Portal Self-Description Hub	PX Portal	DAWEX				Eona-x portal	Central Catalog (IDS component), Forum for participants
	Metadata & Discovery Protocol		2	Self-Description Hub (to be replaced by Federated Catalogue) Digital Twin Registry	PX Portal					Eona-x portal	Central Catalog and Participation Information System (IDS components)
INTER-OPERABILITY	Provenance & Traceability		2	Local (at Partner) EDC Logging	External services (e.g. Visions)					EDC logging + smart contracts	Central Clearing and Logging House (Open Source from Fraunhofer), smart contract concept in preparation
	Data Models & Formats		1	BAMM AAS	Open					Partner defined + industry standards	Industry standards and proprietary formats, both supported by VocabularyHub
	Data Exchange APIs	Synchronous data-sharing	1	Eclipse Dataspace Connector - Data Plane	To define (xAPI)	DAWEX (like API gateway: exchanging data, not storing it)	IDSA + GXFS + electricity specifics (IEC)	FIWARE + electricity specifics (IEC)	Eclipse Dataspace Connector	Eclipse Dataspace Connector	Currently DSC from Fraunhofer (and other IDS RAM 3.0 compatible connectors), EDC in evaluation
		Publish / Subscribe								Eclipse Dataspace Connector (under development)	Currently DSC (and other IDS RAM 3.0 compatible connectors)
		Transaction-oriented Services								Eclipse Dataspace Connector	Data Apps / AppStore (central component)
TRUST	Access & Usage Control/Policies	(where does Consent Mgmt for data sharing fit in Open DEI?)	1	Eclipse Dataspace Connector IDS - ODRL	Contract-based (generated from external services, e.g. Visions)					Eclipse Dataspace Connector - policy package	Usage Policies and Contracts defined at the connector side
	Trusted Exchange		1	DAT (X.509 Certificate) Future: SSI Based (Indy, Aries)	Based on DID, VC and SD on Eth	(Consent Mgmt is part of the VC)				Eclipse Dataspace Connector (based on DID and VC)	DAT (X.509 Certificate) / IDS Certification
	Identity Management	Principal-oriented identity	1	IDP (OIDC)	Did and VC with Eth (metamask + did-jwt-vc)	SSI + VC; 'Mobile Wallet' to store personal IDs				WebDID and VC	ParIS (Participant Information System = central component)
		Participant-oriented identity	1	Data Exchange: DAPS + X509 certificates		'Cloud Wallet' to store legal entities				WebDID and VC	ParIS (central component) / DAPS
Software Infrastructure (OTHER)	Data Processing		3	no usage restriction enforcement.						tbc	Currently DSC
	Data Routing & Preprocessing		3	EDC as Gatekeeper & Backend Adapters for Prop. Solutions.						EDC – details tbc	Currently DSC
	System Adaptation		2	EDC Data Plane as Gatekeeper & Backend Adapters for Prop. Solutions.						EDC – details tbc	Currently DSC

DSBC Technical WG – example with Eona-X



DSBC Technical WG – Best practises white paper

Best practises white paper: <https://community.gaia-x.eu/f/14465612>

Feel free to review & feedback

Overview of the key challenges to address for having successful mobility dataspace

Legal environment for data spaces: The EU Data Act Proposal



David Schönwerth
Policy Officer Data Economy, Bitkom



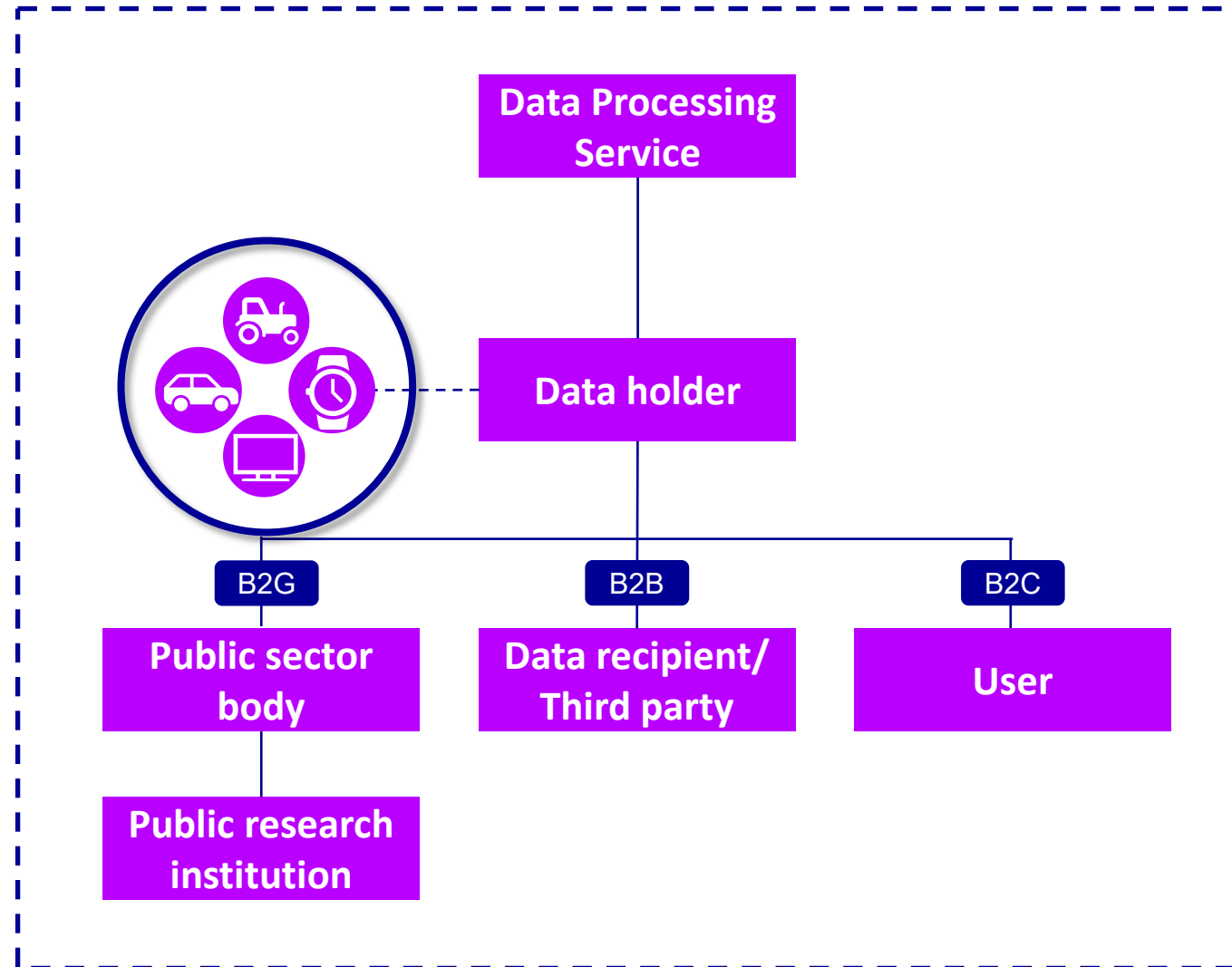
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Regulatory context

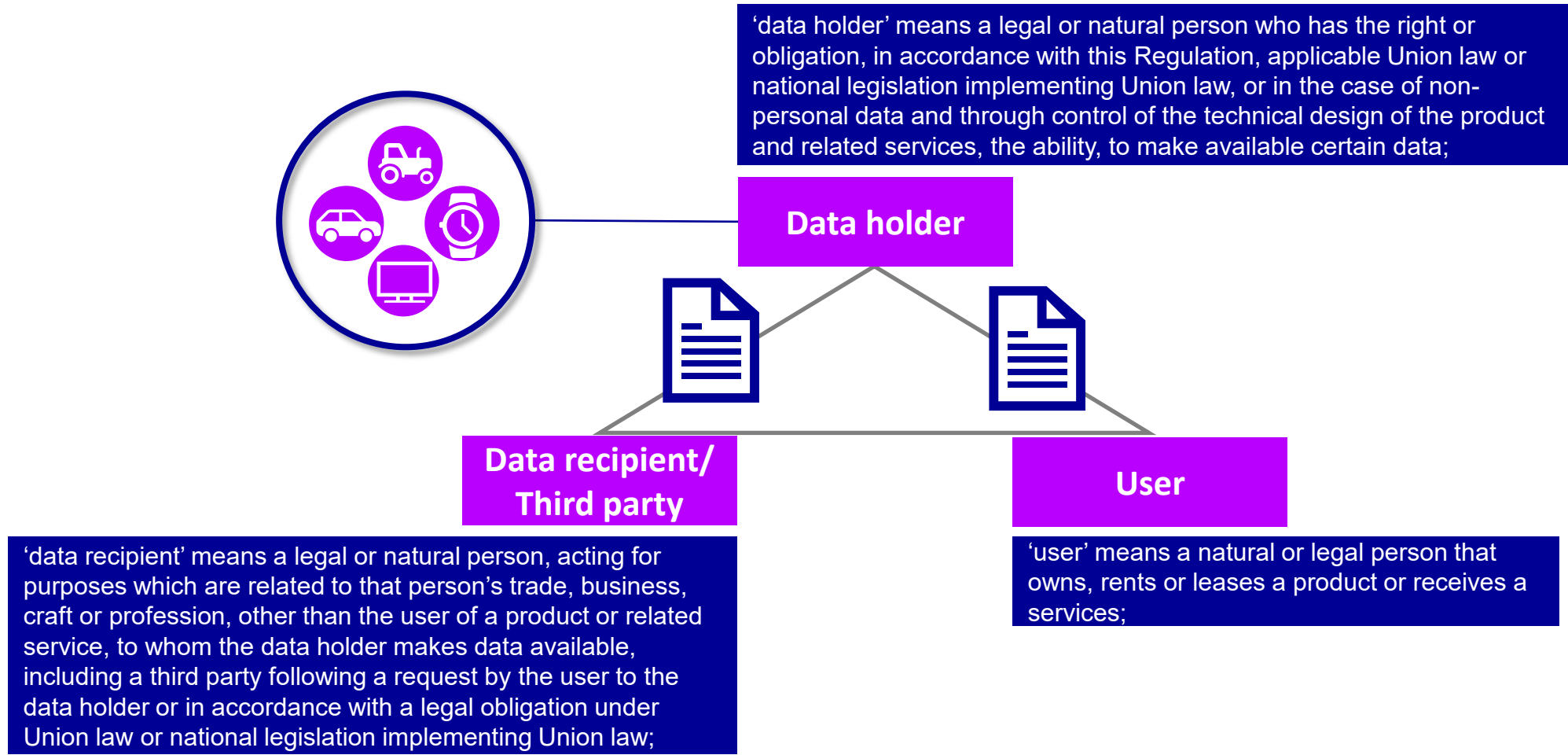
The Data Act Proposal touches areas, which are already (partially) regulated by the following rules, e.g.:

- GDPR
- ePrivacy Directive
- Free Flow of Non-Personal Data Regulation
- EU Competition law
- Database Directive
- Platform 2 Business Regulation
- Open Data Directive
- Data Governance Act
- Digital Markets Act
- INSPIRE Directive
- Energy Single Market Regulation
- PSD2 (+ PSD2-Review)
- ITS Directive
- EU Health Data Space Regulation
- EU Trade Secrets Directive

Selected important subjects



Art. 3-7: B2B/B2C Data Sharing Framework for IoT data



Remarks (1/2)

The Data Act Proposal

- does not recommend or mandate use of data spaces
- does not contain direct provisions how to implement data spaces
- does not use the data intermediation service definition of the Data Governance Act
- could be seen to drive data spaces demand indirectly
 - if data has to be shared, using a data space could be an option
- does have provisions for providers of data processing services
 - which could influence a data space, e.g. if such services have a nexus to a data space
- does introduce provisions on *inter alia* contracts, transparency, data disclosure, data use, user consent, data technical protection in certain data sharing situations
 - which could influence data spaces if such data sharing situations were to be performed in a data space
- does introduce declaration obligations for operators of data spaces
 - (be they common EU data spaces or not)

Art. 29 – Data Spaces Interoperability (1/2)

*Found in Art 28
Paragraph 1*

Declaration obligations for operators of data spaces:

“the dataset content, use restrictions, licences, data collection methodology, data quality and uncertainty shall be sufficiently described to allow the recipient to find, access and use the data;”

“the data structures, data formats, vocabularies, classification schemes, taxonomies and code lists shall be described in a publicly available and consistent manner;”

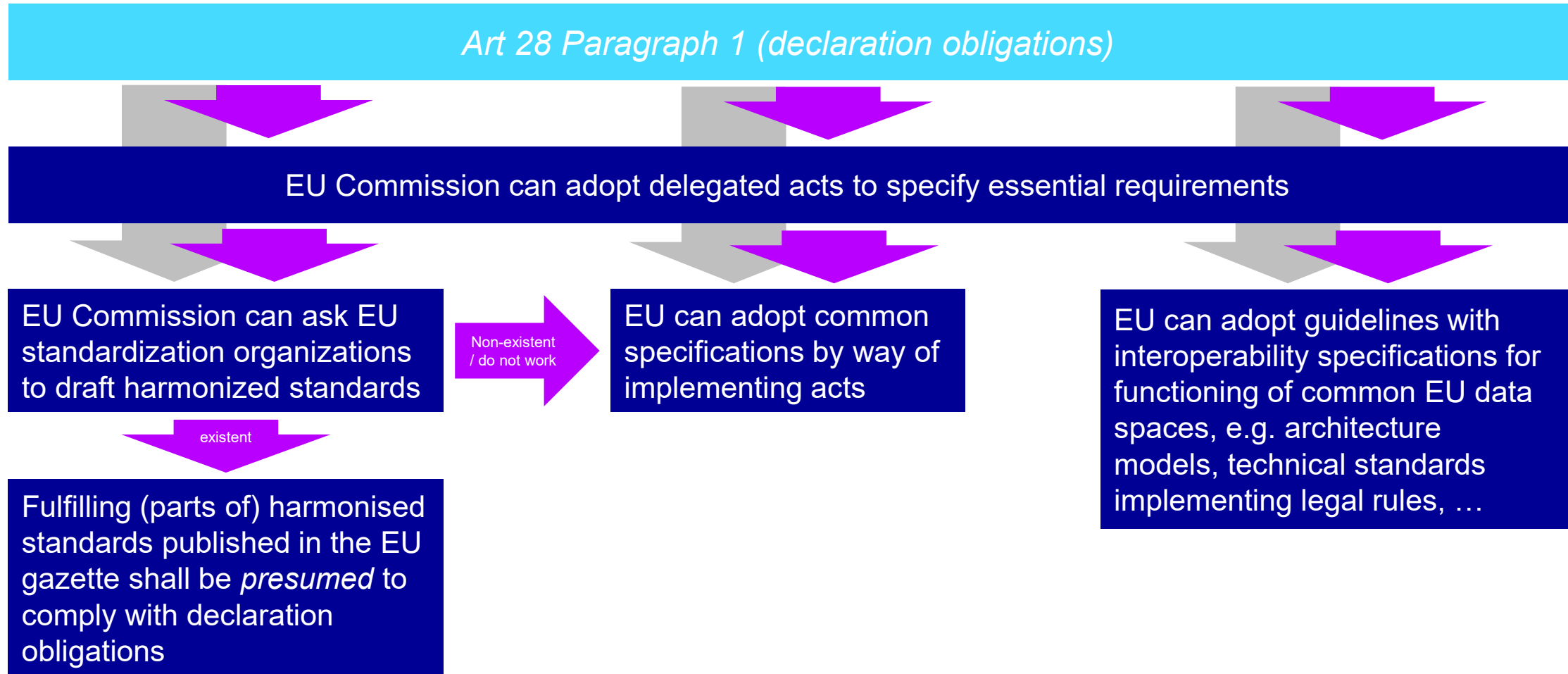
“the technical means to access the data, such as application programming interfaces, and their terms of use and quality of service shall be sufficiently described to enable automatic access and transmission of data between parties, including continuously or in real-time in a machine-readable format;”

“the means to enable the interoperability of smart contracts within their services and activities shall be provided.”

Can be
generic or
concern
specific
sectors

... What does this mean in practice?

Art. 29 – Data Spaces Interoperability (2/2)



Remarks (2/2)

Against this background

- Shared responsibility if there are several operators? (governing body, operating company/ies, ...)
- Highly decentralized data space: how easy is the allocation of responsibilities?
- Can the operator provide all the required declarations?
- Should all these declarations be public?
- It will be interesting to further understand the role of the planned Data Spaces Support Center and the coming Data Innovation Board (DGA Art. 29, 30) in this discussion
- Out of scope of this talk but **important**: Art. 30 introduces requirements for **smart contracts for data sharing**, please have a look in particular at the **broad** legal definition of SC* and the req's!

David Schönwerth,
Policy Officer Data Economy,
Bitkom

Thank you! Feel free to get in touch!

email: [d.schoenwerth\(at\)bitkom.org](mailto:d.schoenwerth@bitkom.org)

Break - 12:40 - 14:15



See you for Chapter 2 at 14:15!

