

Data Spaces Discovery Day

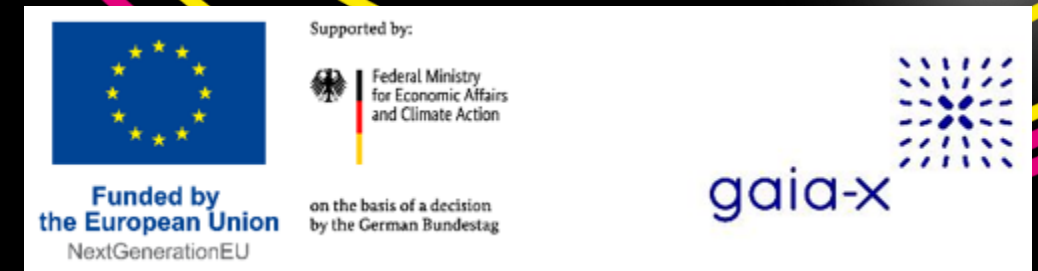
October 19, 2023 | Vienna

GX4 Future Mobility: Virtual development & validation of autonomous driving systems

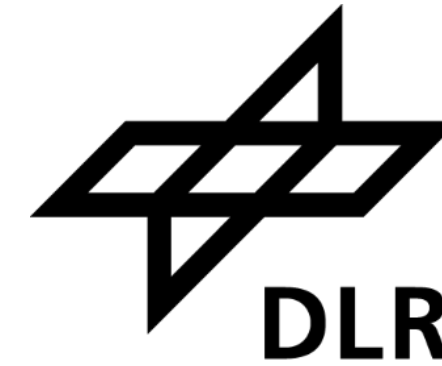
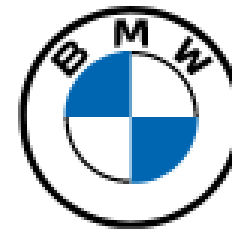
Dr. Markus Ketterl
msg systems ag



gaia-x future mobility
Gaia-X Lighthouse Project

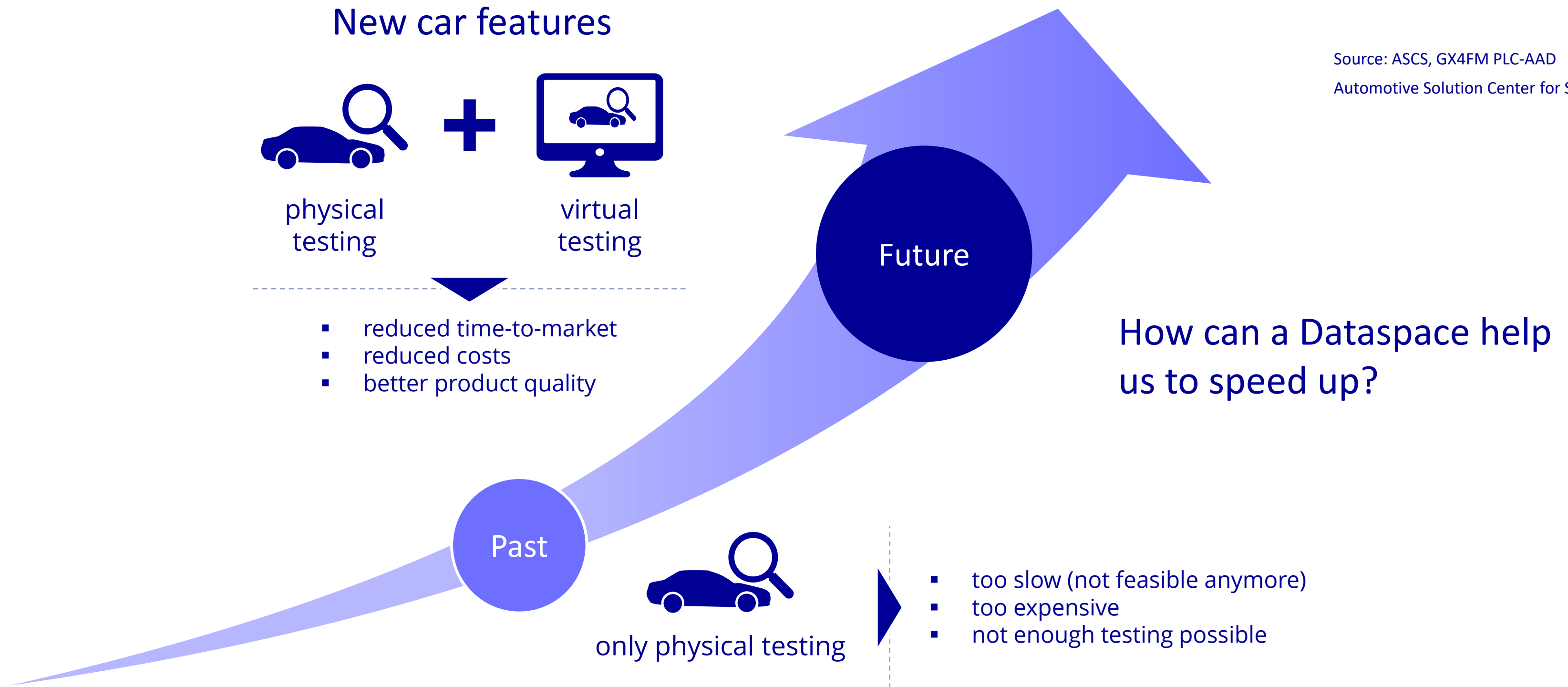


20 Participants from Industry and Research



- 01/2022 – 12/2024
- Lead: msg / DLR

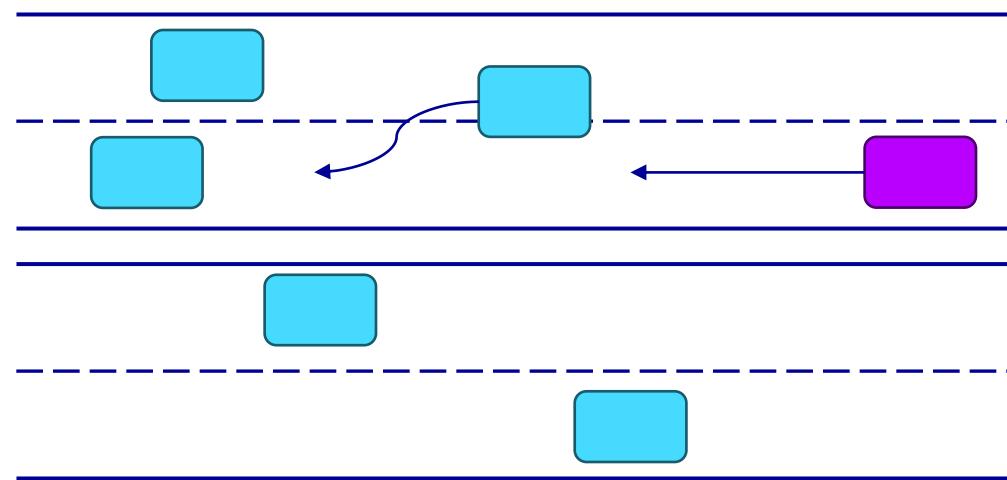
The market increasingly requires virtual validation



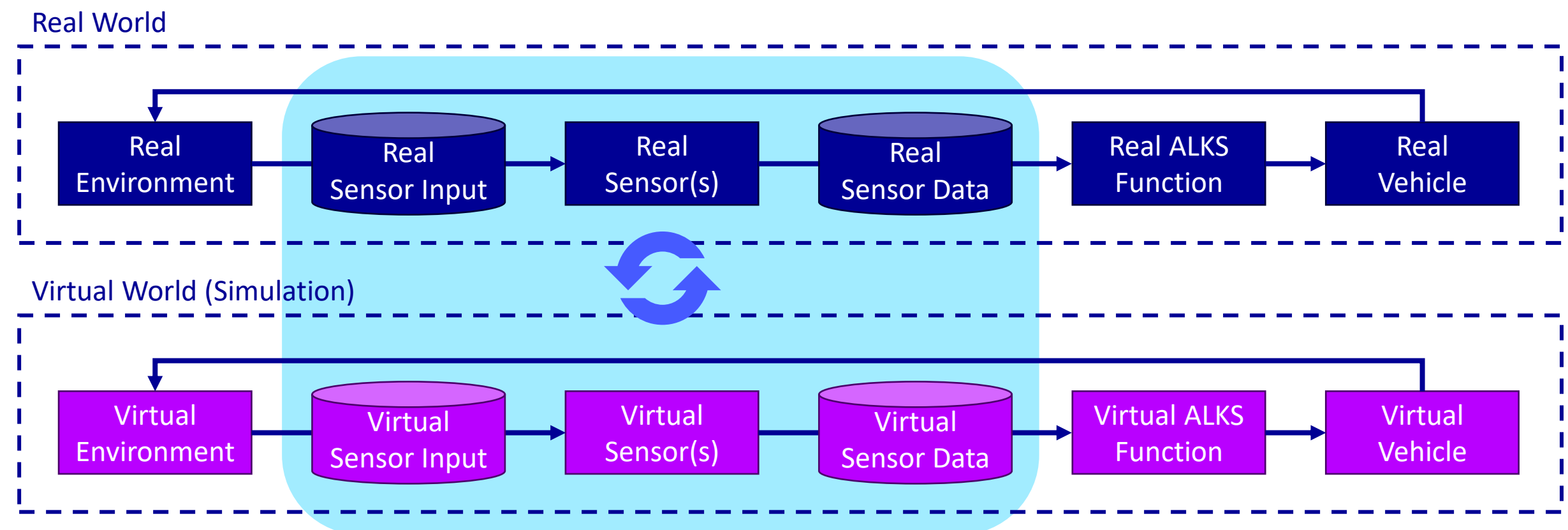
Source: ASCS, GX4FM PLC-AAD
Automotive Solution Center for Simulation e.V.

Virtual Validation - ALKS (Automated Lane Keeping System)

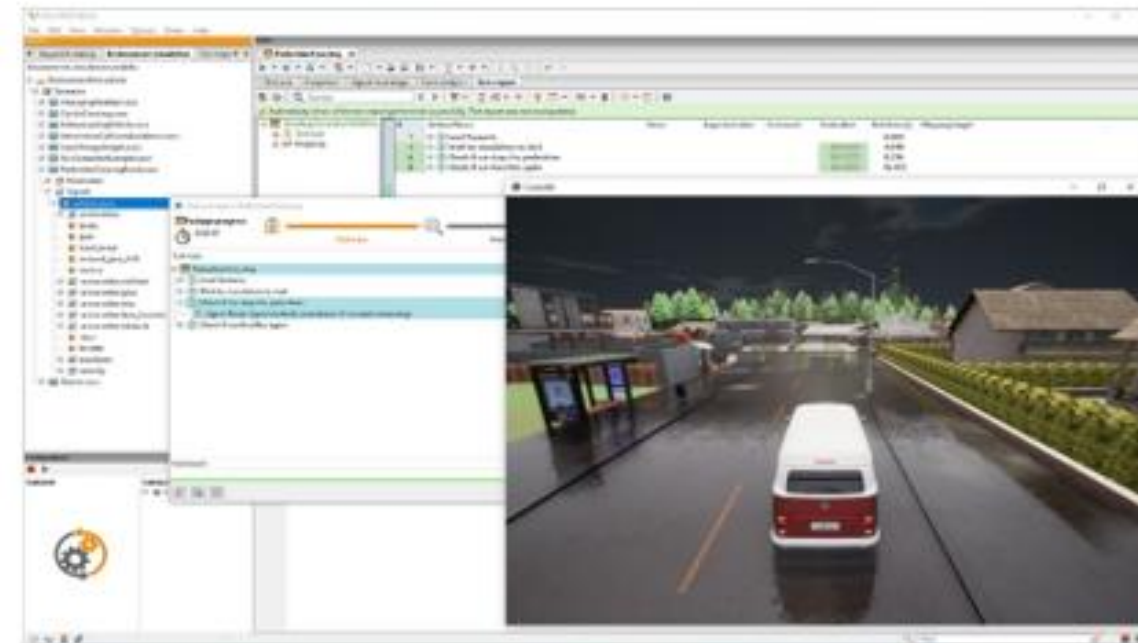
- Overall Goal: Validate ALKS function in a cost-efficient way -> Use virtual validation
- Secondary Goal: Validate virtual world for use in virtual validation -> Focus: Sensors



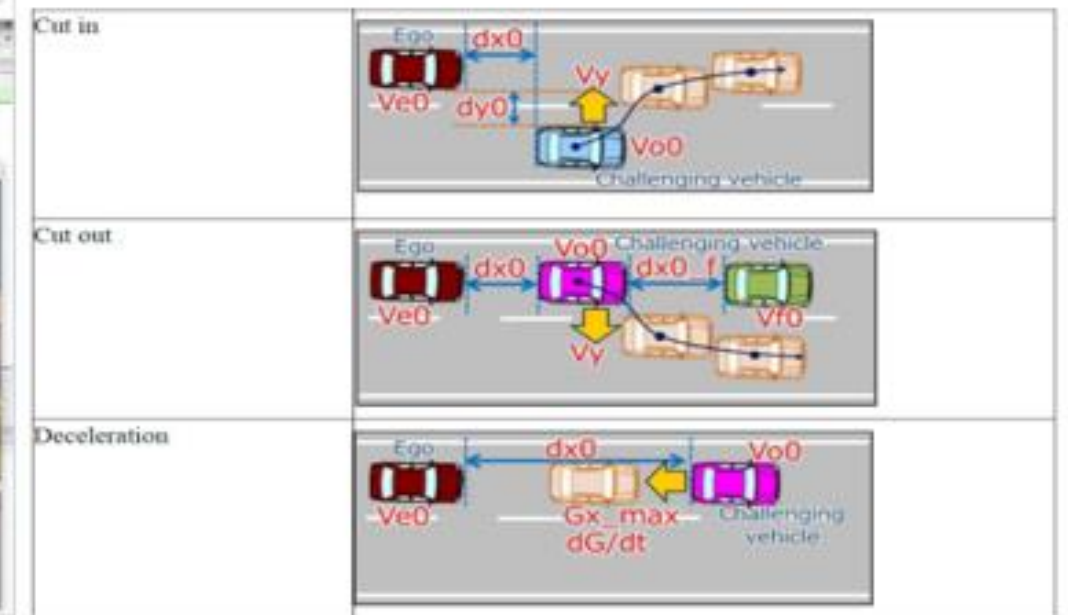
ALKS It is essentially a more robust combination of adaptive cruise control and lane centering assist.



Virtual development, training, validation of autonomous driving systems - Impressions



<https://www.tracetronic.com/products/ecu-test>

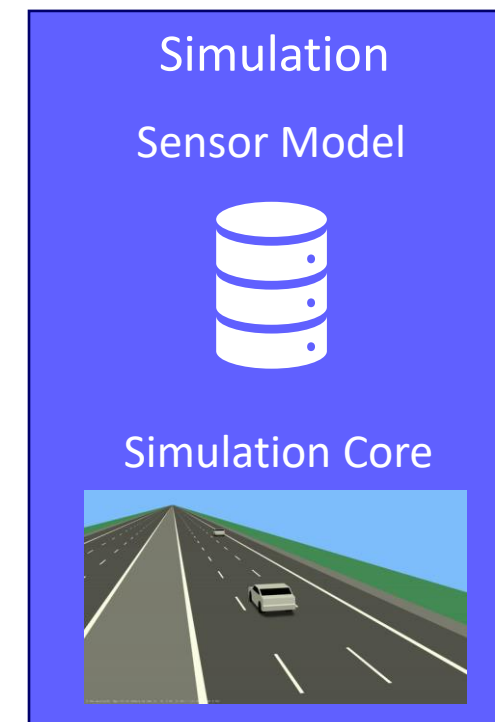


ALKS UNECE regulation proposal

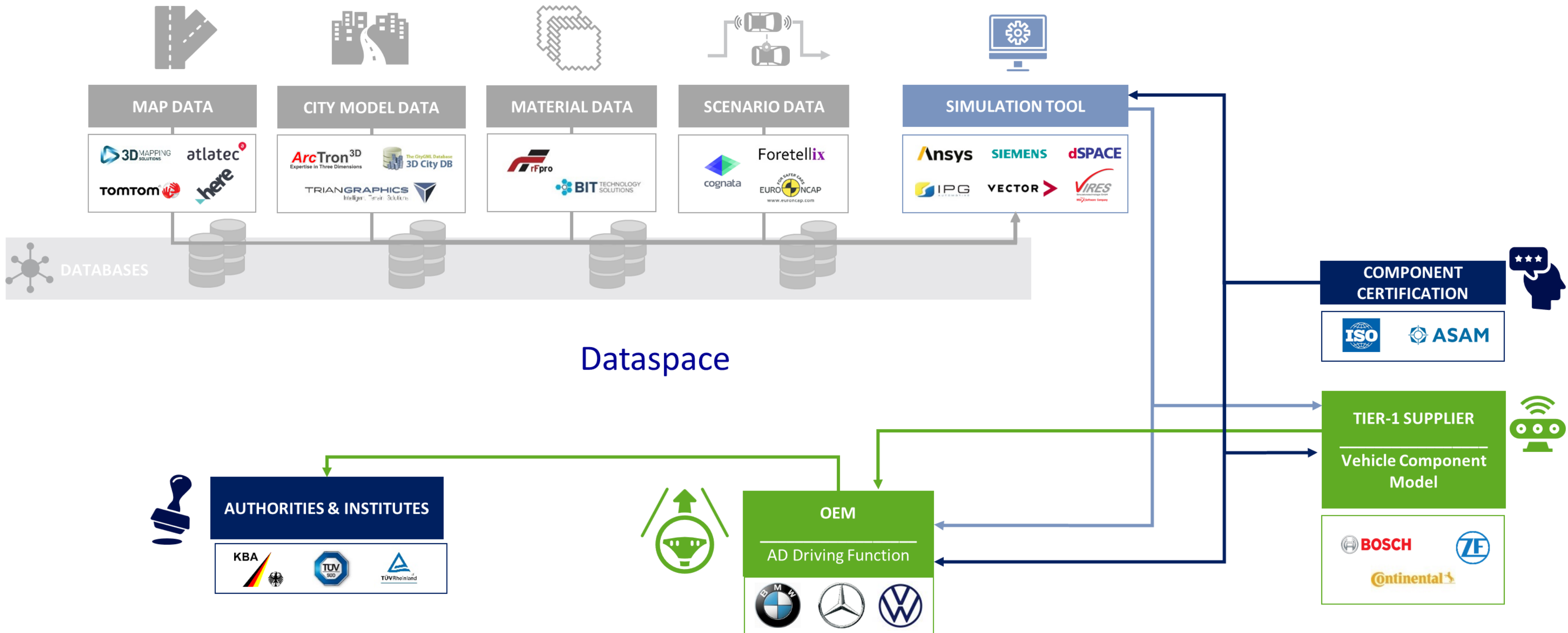
Project examples



<https://www.envited.market/>



Complex supply chain networks



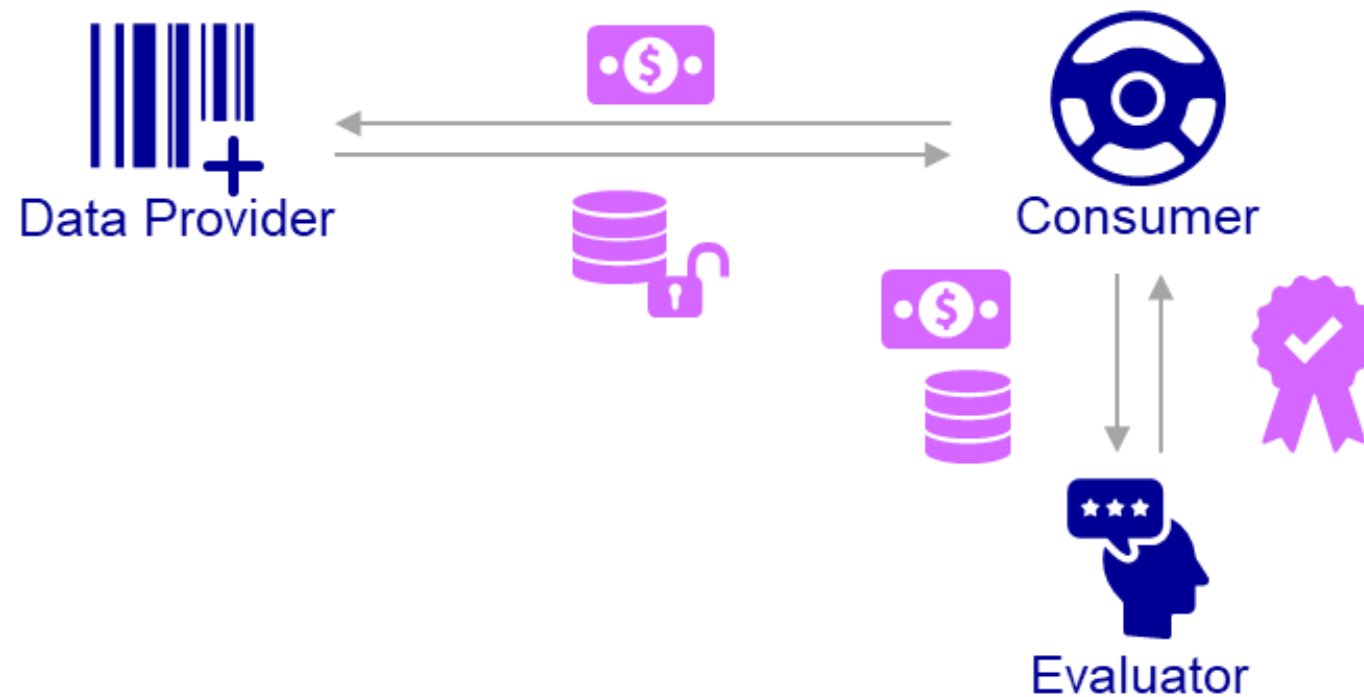
The Dataspace eliminates the limitations of our development related challenges

WITHOUT trusted data space

Data stays locked-up in silos

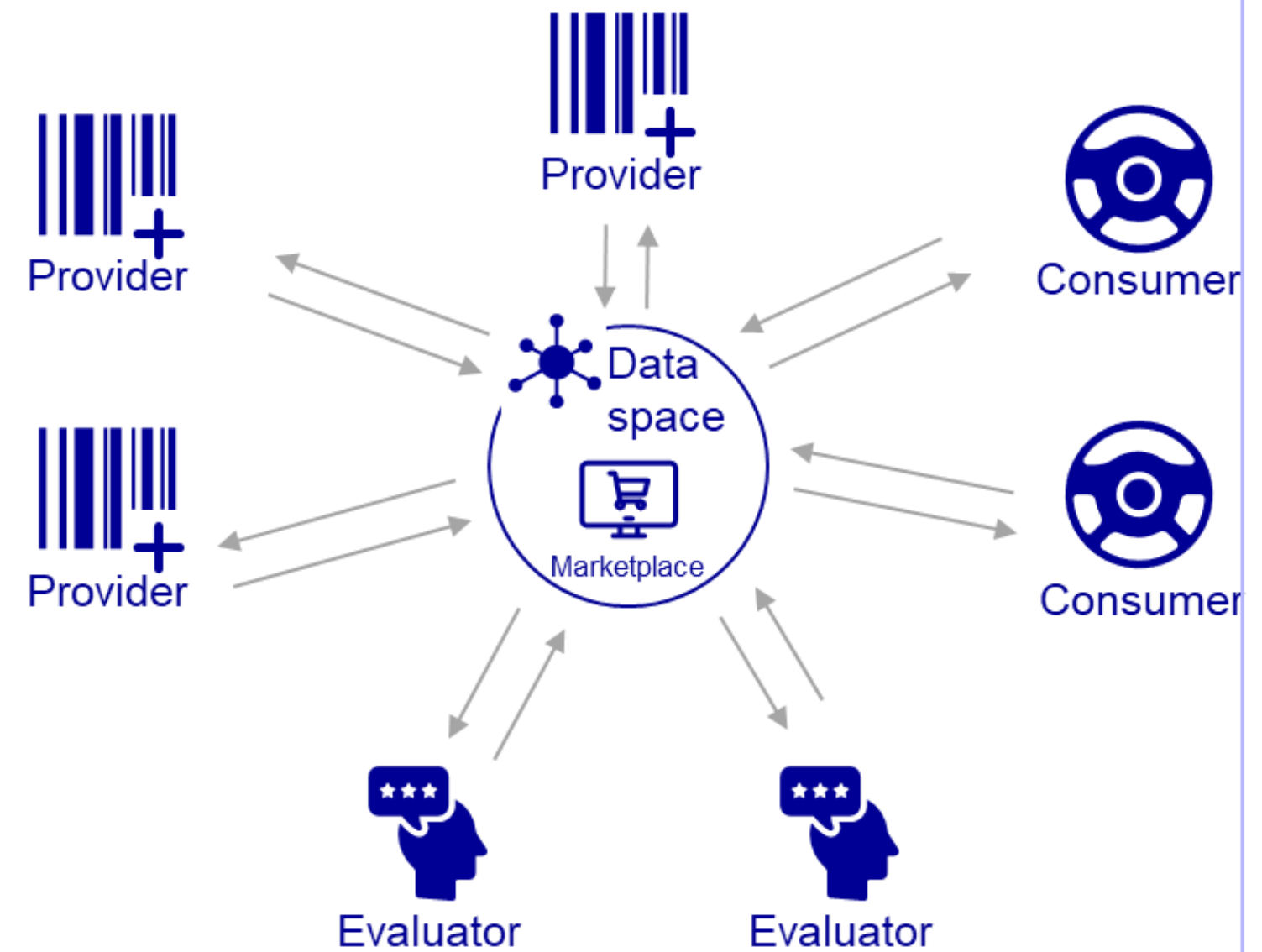


If shared at all, data sharing is done in **inefficient** bilateral trades



WITH trusted, distributed data space

Standardized data is shared **efficiently**



Foundational concepts for our Dataspace

Establishing trust:

- Governance & Onboarding of participants
- SSI & Verifiable Credentials
- Trust anchor

Data discoverability:

- Alignment of vocabularies and semantic models
- Self Descriptions of Ressources
- Federated Catalog
-> Marketplaces / Portals

Data sharing & usage

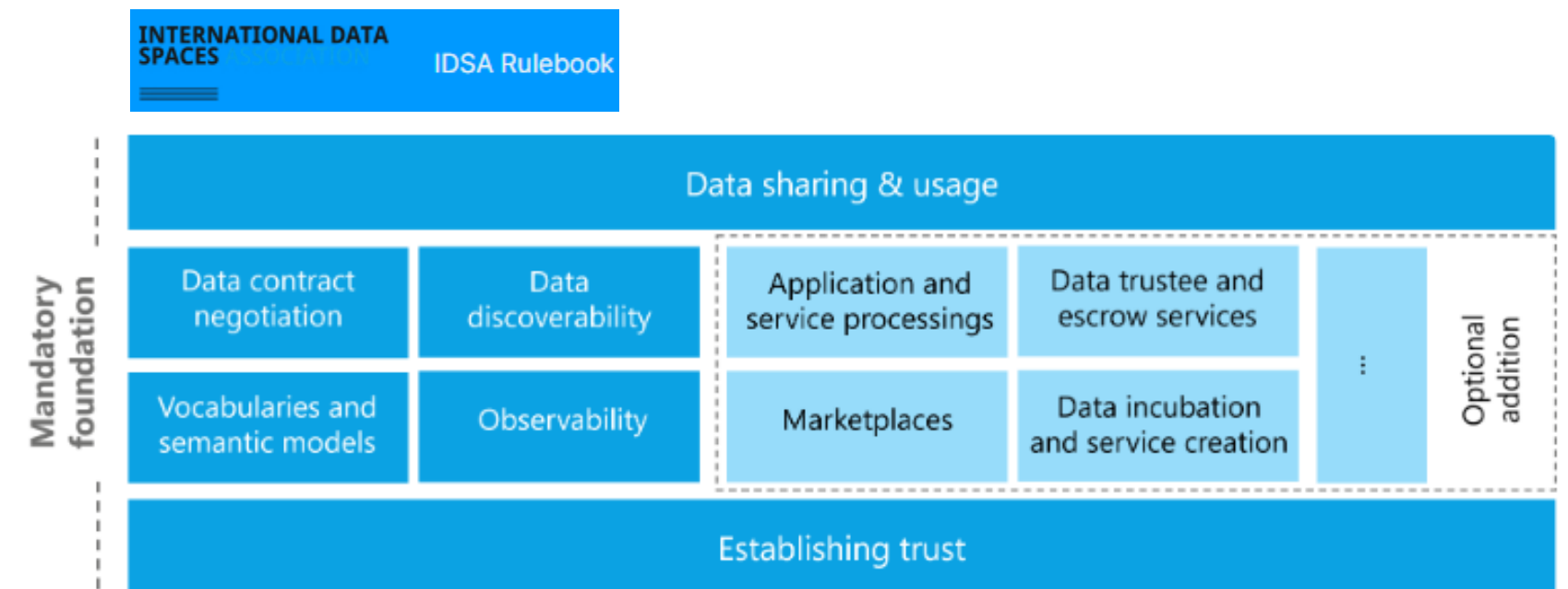
- Data contract negotiation
- EDC Connector where applicable in the Project Family
- IPFS

Observability

- Logging
- Monitoring
- Blockchain

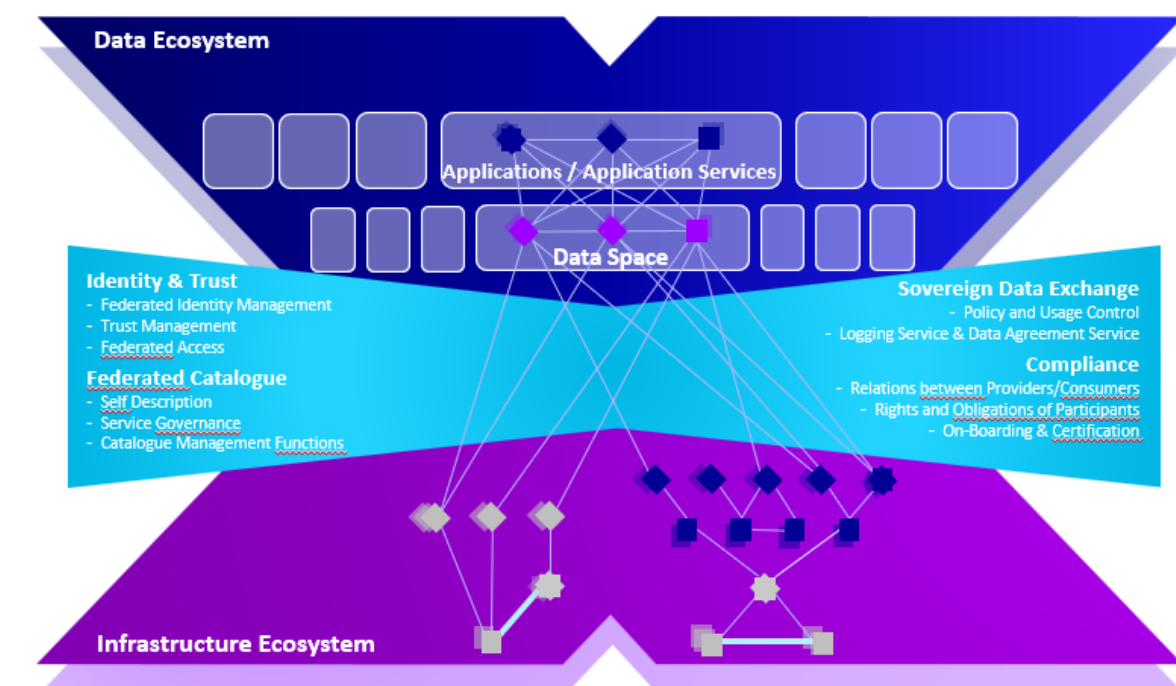
Application & Services

- e.g. Simulation as a Service



Foundational Concepts in data spaces

https://docs.internationaldataspaces.org/ids-knowledgebase/v/idsa-rulebook/idsa-rulebook/3_functional_requirements



gaia-x future mobility

Gaia-X Lighthouse Project

The family of projects consists of

gaia-x  KI

gaia-x  AMS

gaia-x  ROMS

gaia-x  moveID

gaia-x  PLC-AAD

gaia-x  AGEDA

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Gaia-X 4 Future Mobility
Coordinated by the DLR
Institute
for AI Safety and Security

