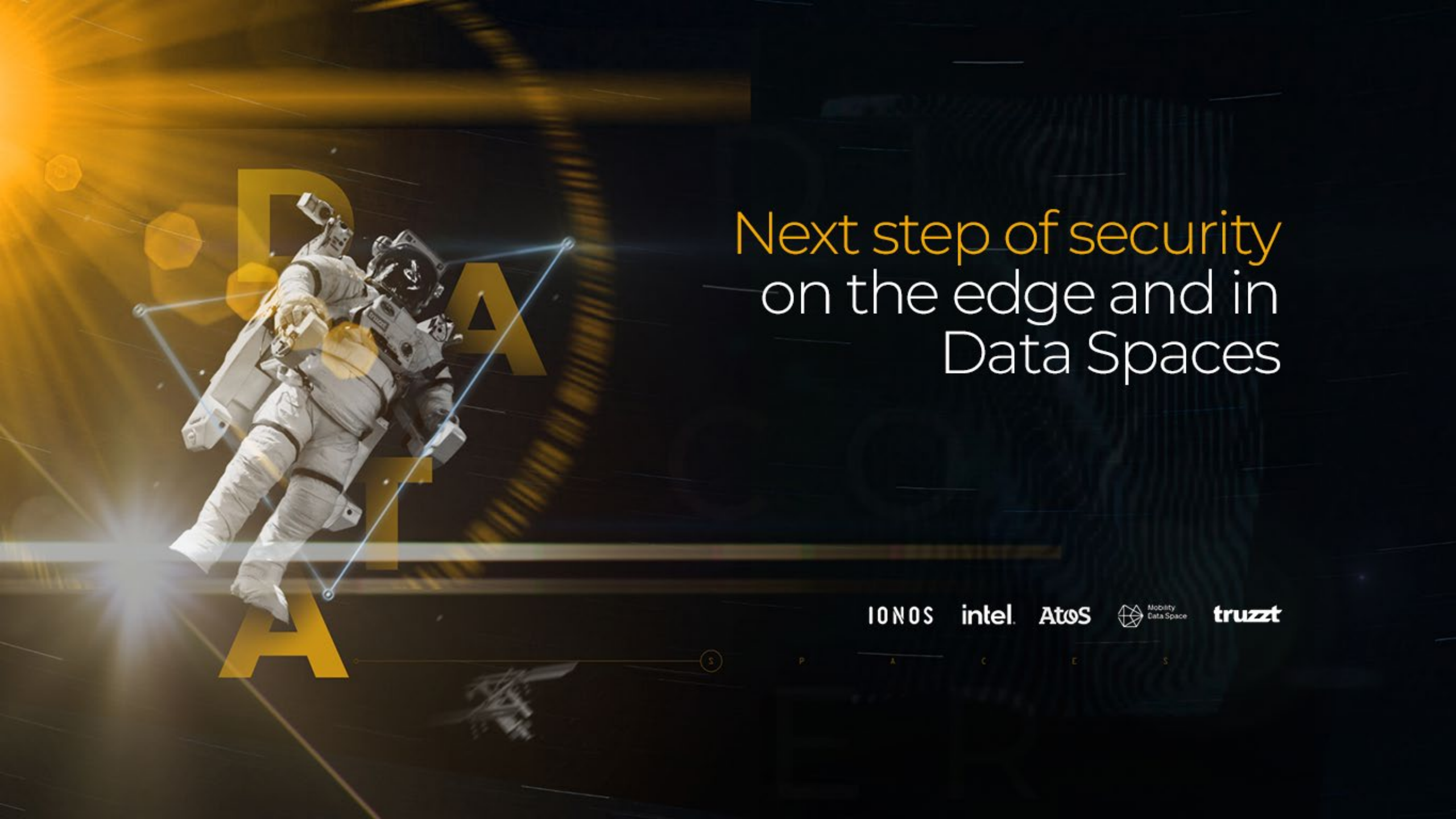


Next step of security on the edge and in Data Spaces

IONOS intel. Atos Mobility Data Space truzzt

The truzzt box uses the on-chip-based Intel SGX enclave to process and ship data in federated data spaces.

truzzt box + intel SGX

It ensures the highest standards of confidential processing of any data, especially sensitive data, enabling and enhancing an integrated data exchange ecosystem that connects data providers and data consumers via hardware-based controls from the web to the edge to the device.

IONOS Atos orbiter

truzzt

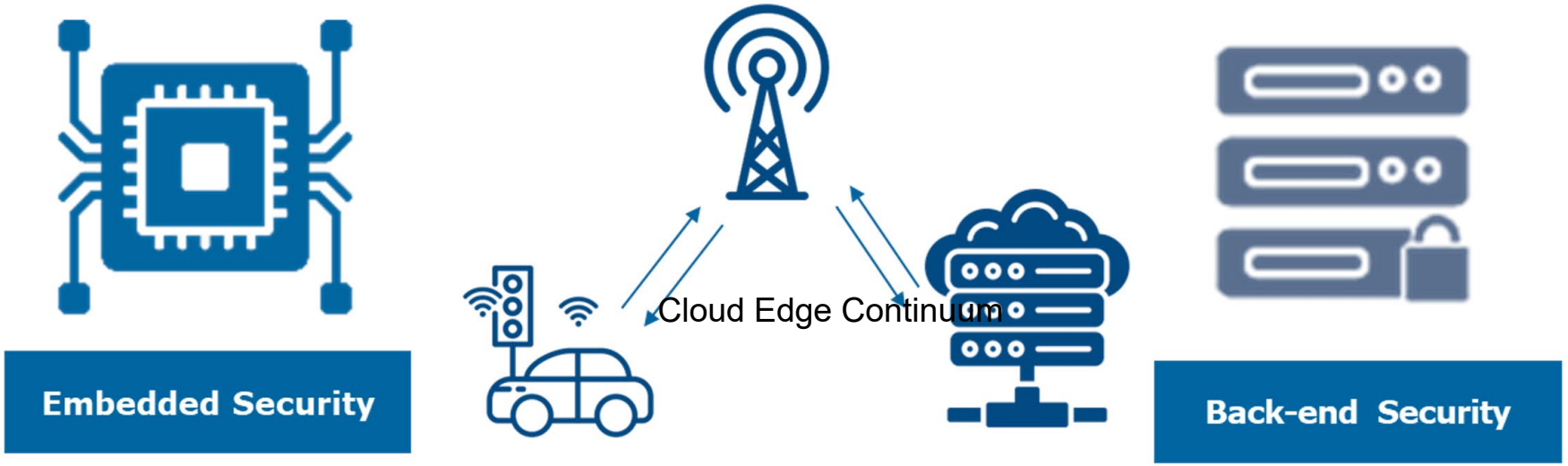
The integration of this technology framework as system integrator

Klaus **Ottradovetz**

Vice President Global Service Delivery at Atos SE

truzzt

Atos: End-to-End *Hardware* Security...



Horus V2X-HSM
Dedicated secure elements implemented into Embedded Control Units to encrypt V2X messages

End-to-end Hardware Security

NetHSM

Intel SGX

truzzt

Atos: ...well, rather n-to-m security...

IONOS Atos erbite

Atos: ...even across different "device classes"...

Edge ← → Cloud

ON-DEVICE	ON-PREMISE	FAR EDGE	NEAR EDGE	REGIONAL EDGE	CLOUD
		Cell site edge Aggregation node	Central office Mini data centres	In-country data centre	Central data centre
Millions	100,000s	1,000s 100s	10s	10s	<10s
Typical distance	<1 km	1-100 km	100-1000 km		>1000 km
Average latency	1 ms	2-5 ms	10-20 ms		>20 ms
Power range	kW	20-100 kW	100kW-1MW	5-30 MW	50-100 MW

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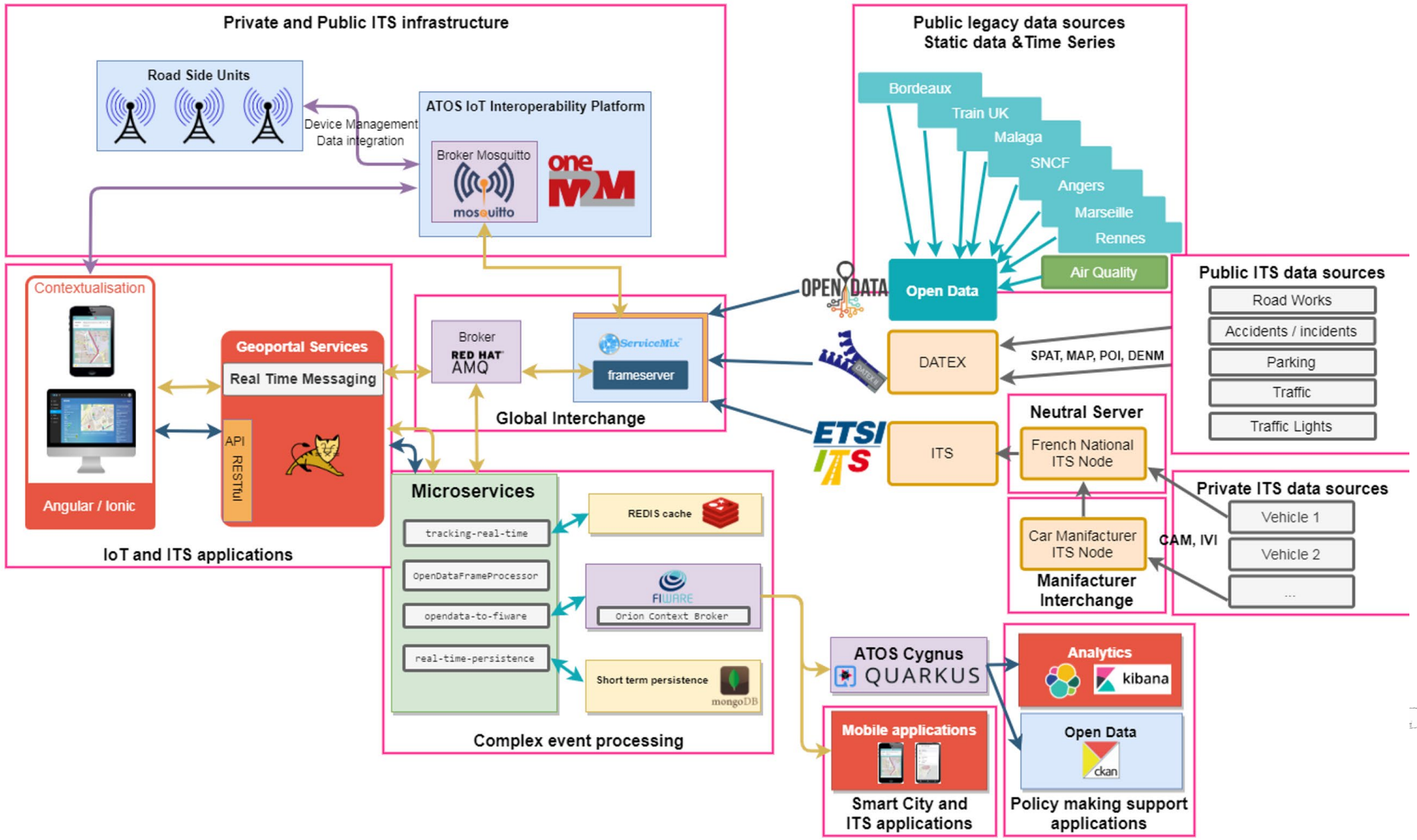
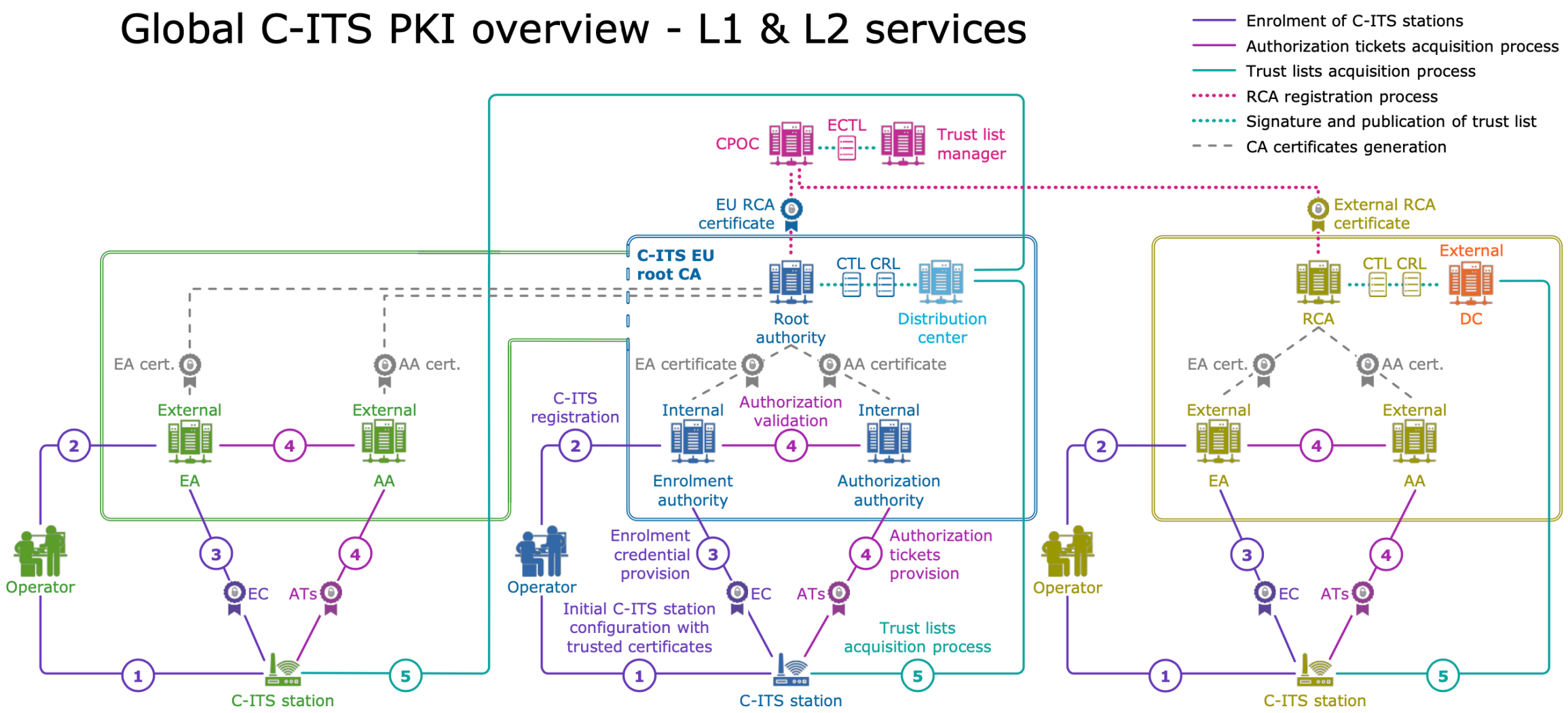
Atos: ...requires a tightly integrated frameworks...

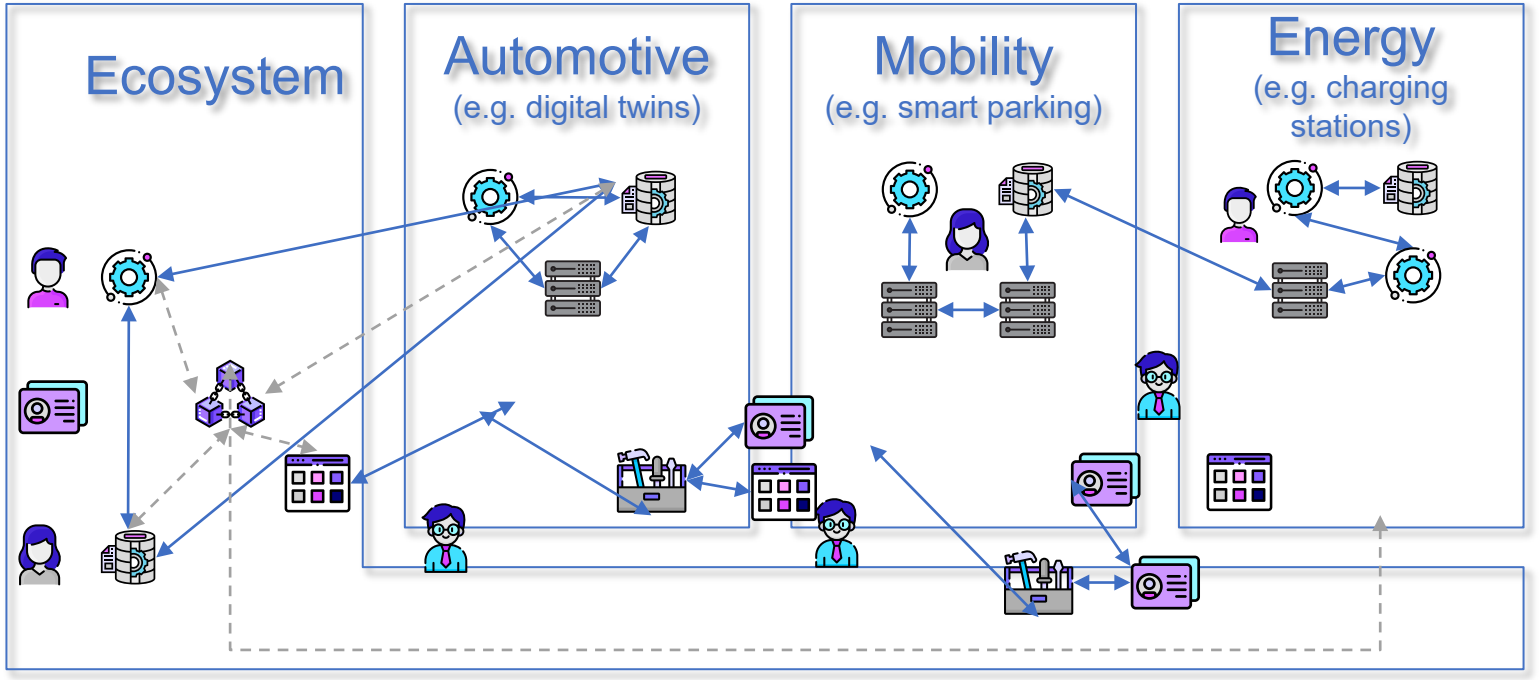


truzzt

Atos: ...with distributed security architecture...



Atos: ...and across dataspaces and eco-systems



Gaia-X Federation Services toolbox

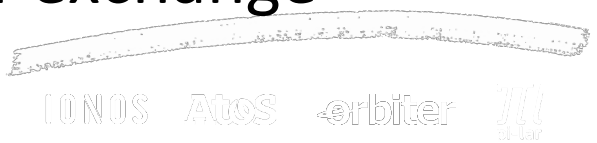
Federator responsible for the Federation Services

Ecosystems Participants

IONOS Atos orbiter

Atos: Cloud Edge Continuum

- Applications will be distributed across devices, (different types of) Edges and clouds *and* across multiple providers
- Isolated, private and public networks need to (securely) connect → IT / OT (Factory shopfloor) / Mobile converge
- Scalable and performant security architecture across different device and compute classes and across networks is key to support sensitive applications
- Associations like International Data Spaces Association and Gaia-X provide the framework for trust and sovereign data-exchange



truzzt

Rainer **Sträter**

Senior Vice President, Cloud Services and Global Platform Hosting at IONOS SE

Cloud, Web and Edge secured :

Next step in Confidential Computing

IONOS

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Trends …

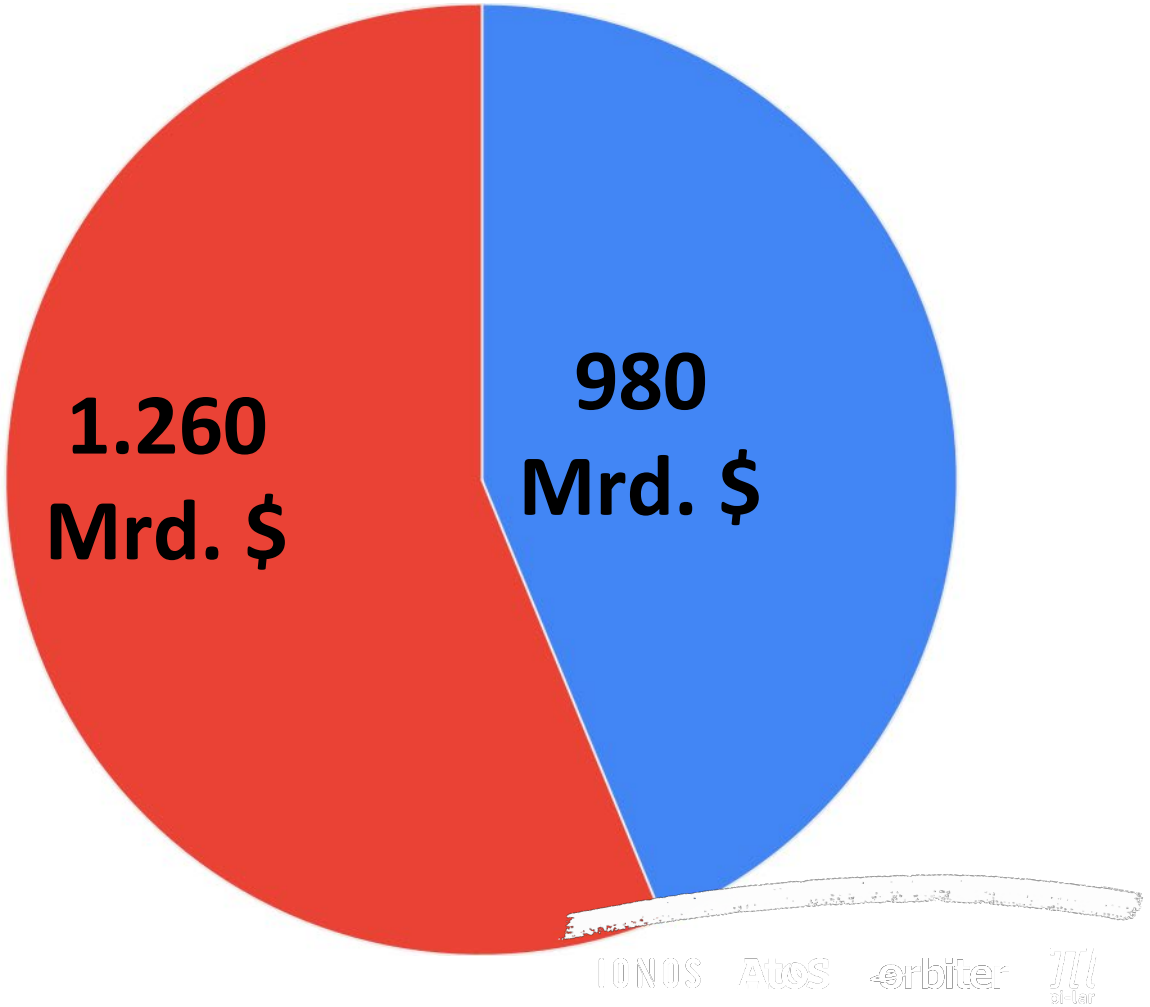
IONOS

The relevance of Platforms ….

truzzt

Tesla

20 biggest car companies



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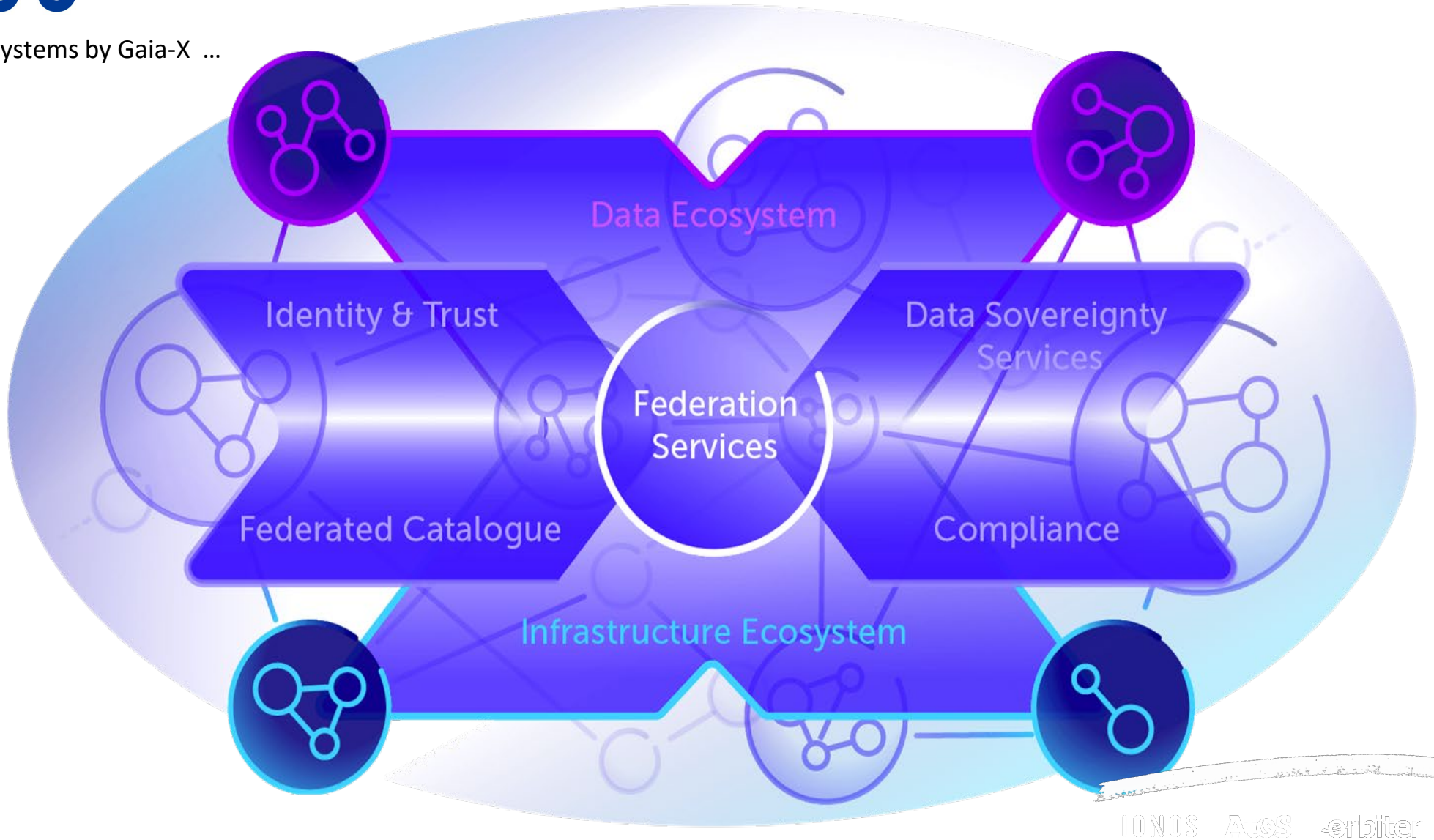
DataSpace Eco-Systems by Gaia-X …



IONOS Atos orbiter

… the european way of platforms

IONOS

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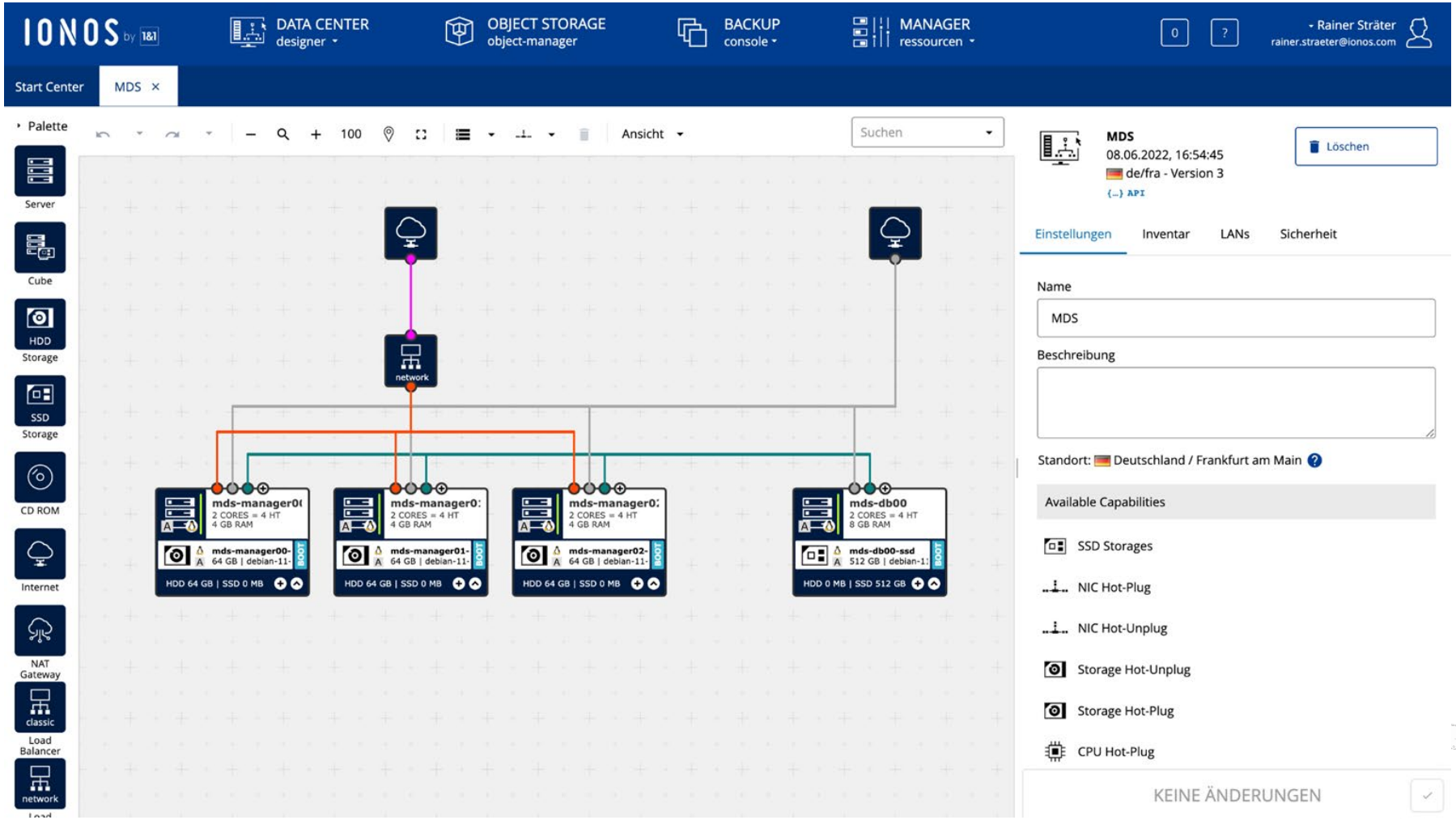
Platforms / DataSpaces in action - 6 projects about dataspaces and technology

Name	Domain	Partners
Health-X	Health	Charite Berlin, Fraunhofer Institut, IDSA, FU Berlin...
Marispace-X	Maritim	TrueOcean, University Kiel, GEOMAR, Helmholtz...
MERLOT	Education	Imc AG, HPI, IBM, iServ GmbH, edu-sense GmbH...
POSSIBLE	Public	Bechtle AG, Dataport AöR, Scheer Institut, Univention...
OpenGPT-X	Industry	Fraunhofer, WDR, Aleph Alpha GmbH, KI Bundesverband...
TELLUS	all	DE-CIX, Trumpf, Stadtwerke Wolfsburg, Cloud&Heat...

IONOS

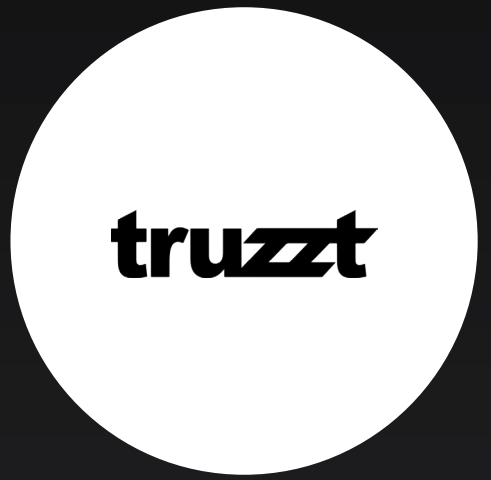
We don’t like Slides ….

truzzt



truzzt Alliance Use Case Witte Digital:

Sharing Key and Edge Device



Hannes **Bauer**

CEO truzzt GmbH,
hosting the truzzt Alliance

truzzt

truzzt

one

we

Reinvent

truzzt

Michael **Schäfer**

CEO of DRM Datenraum Mobilität GmbH, operating the Mobility Data Space Community

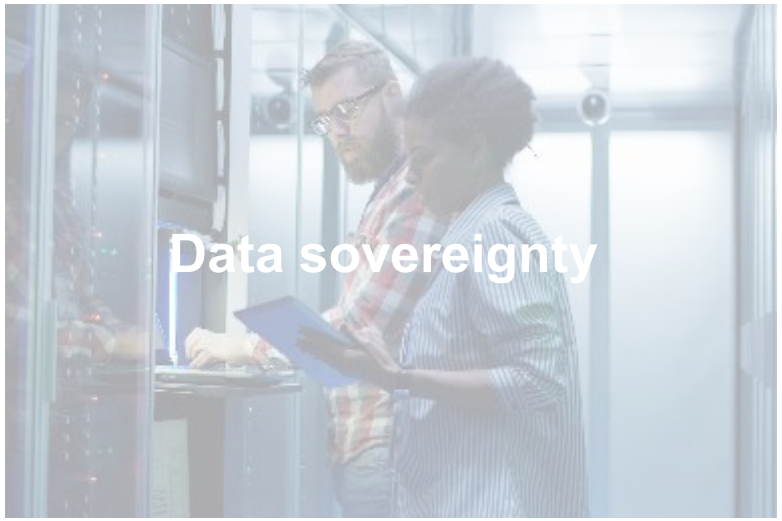
Use Case Mobility Data Space:

MDS as full fledged and secured environment for the mobility ecosystem

Challenges | Mobility, sustainability and security

Mobility Data Space
Data Sharing Community

truzzt



Trust & security | Trusted data transmission in Mobility Data Space: Basis for innovative products, services and business models

Mobility Data Space
Data Sharing Community

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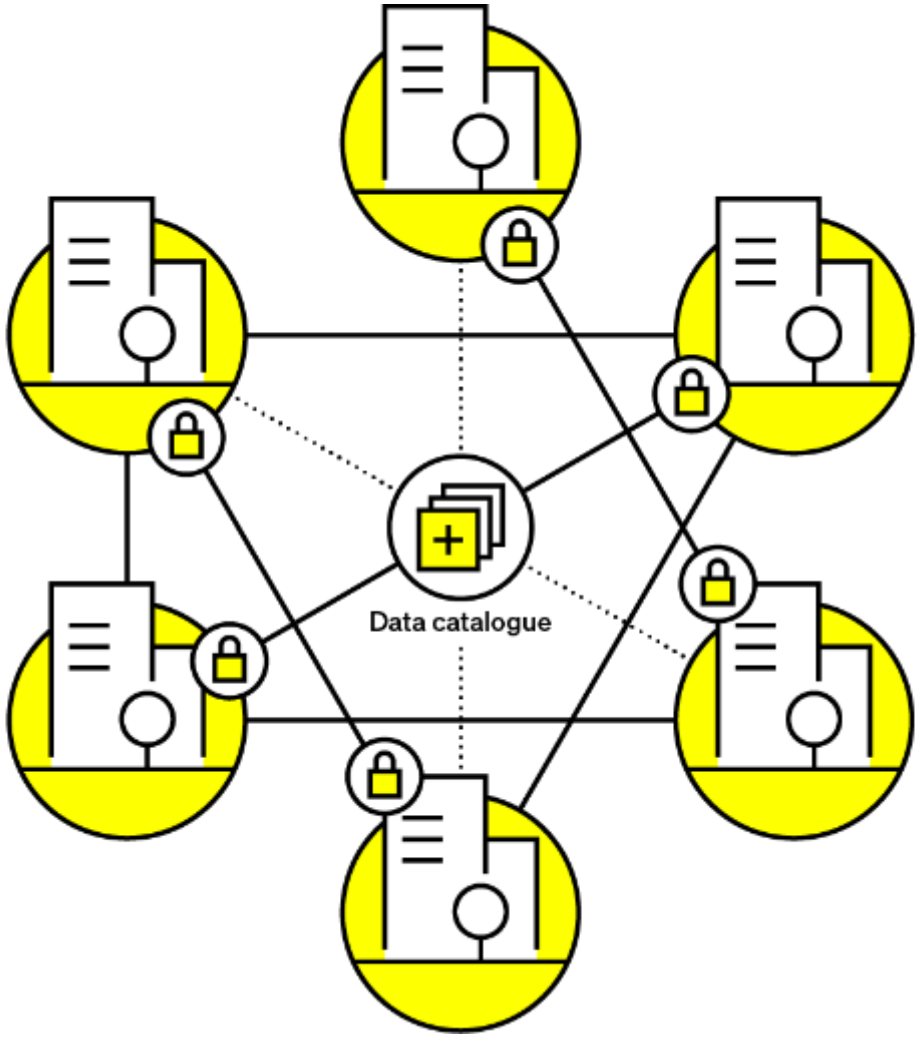

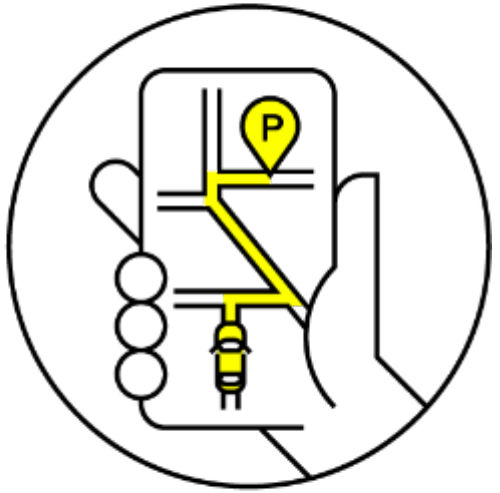

Trust & security | Data sharing via Mobility Data Space

Mobility Data Space
Data Sharing Community

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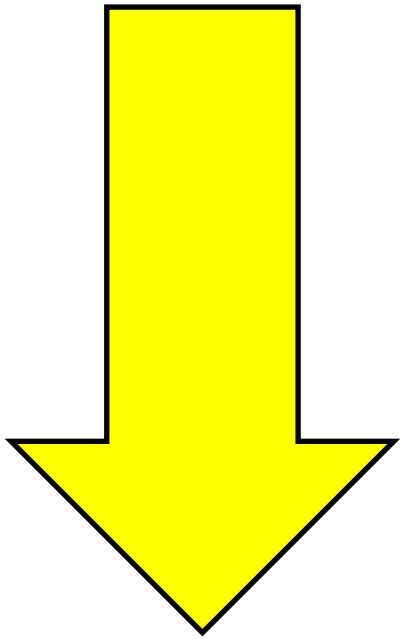
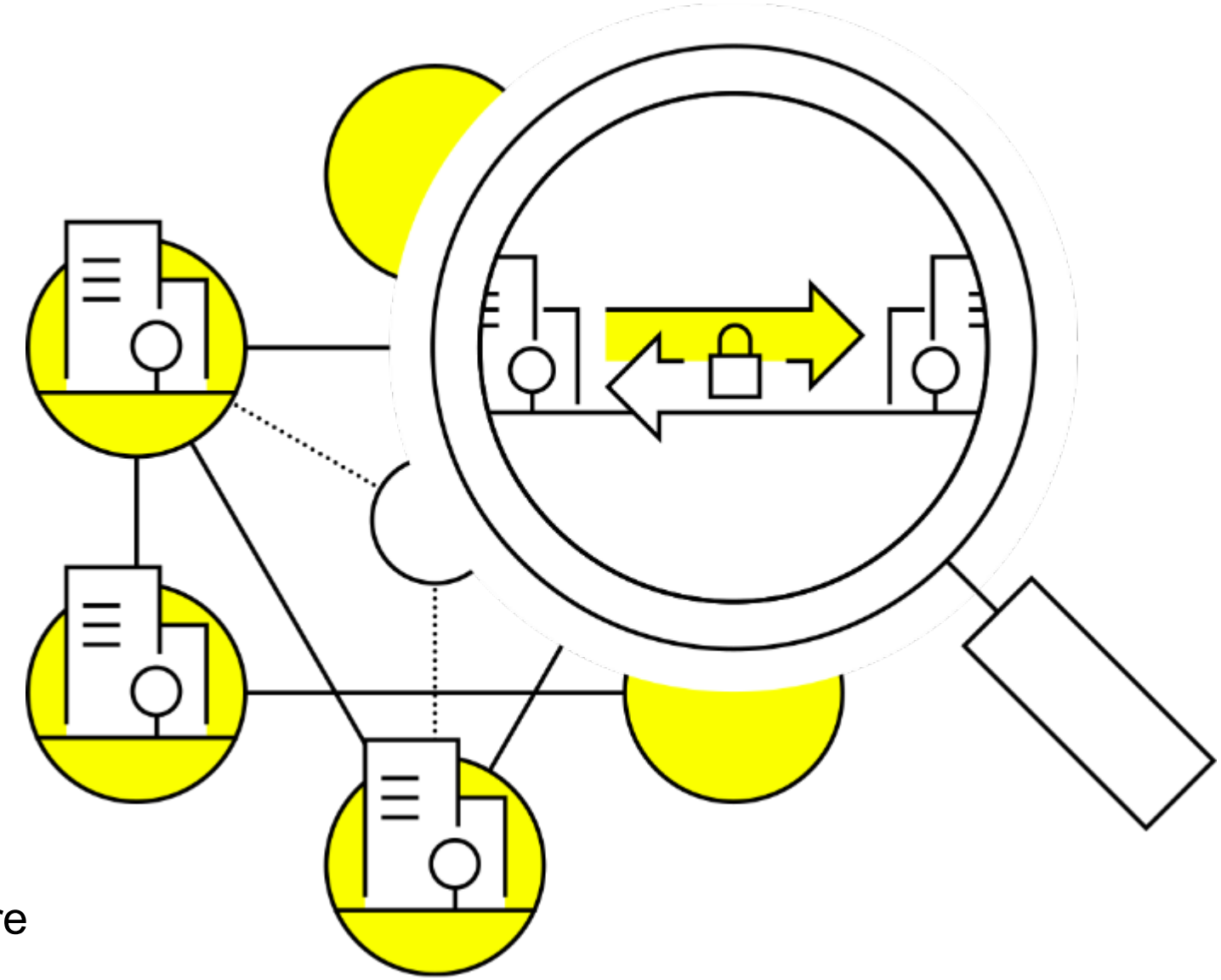
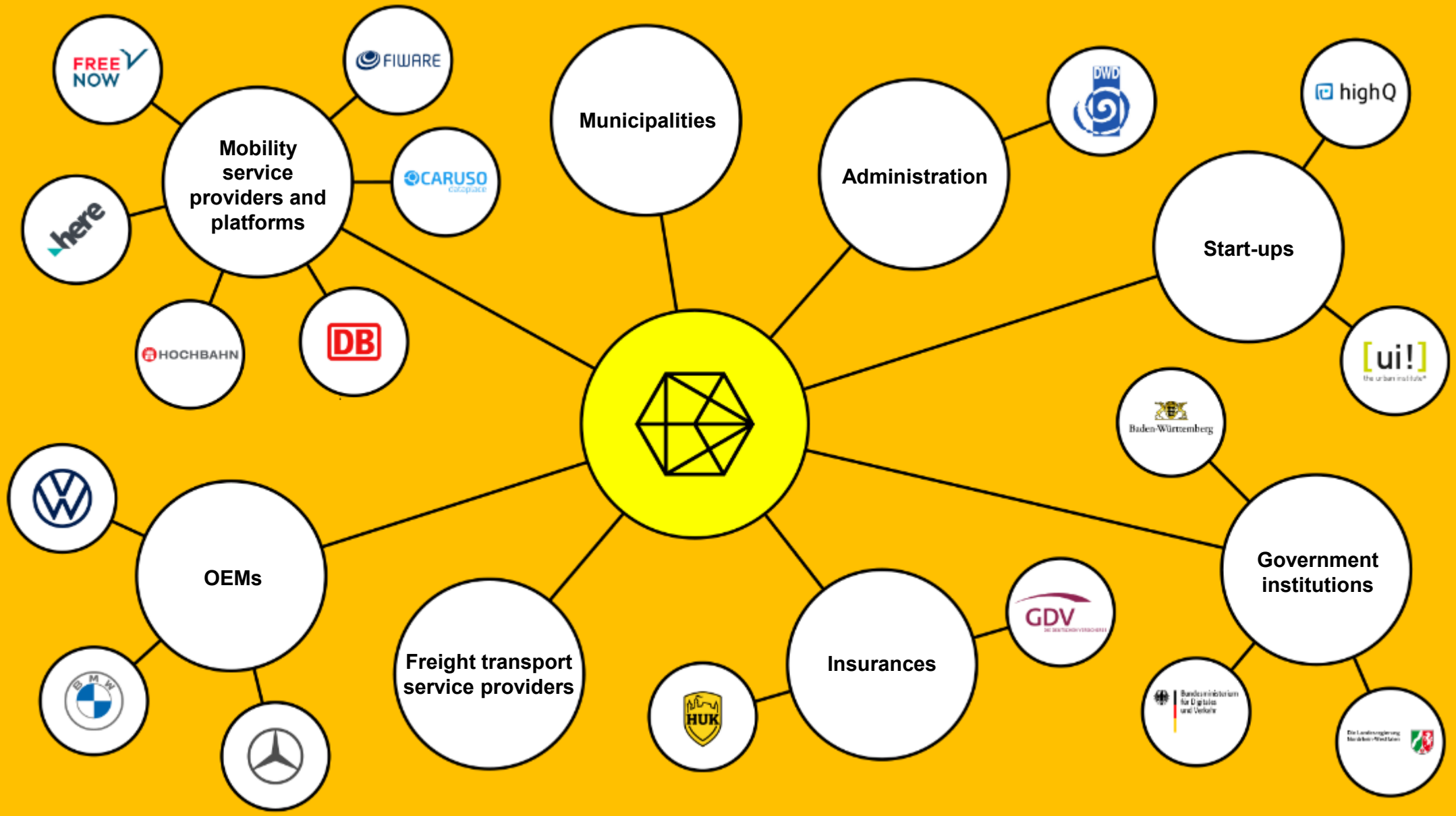
The secure space for data exchange between partners among equals





- Trust by secured identities
- Security by secured digital infrastructure

Ecosystem | Network of strong partners (selection)



Ecosystem | Wide range of mobility available data

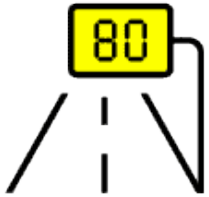
Traffic information

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

Success stories | Application scenarios fired by the Mobility Data Space

Mobility Data Space
Data Sharing Community

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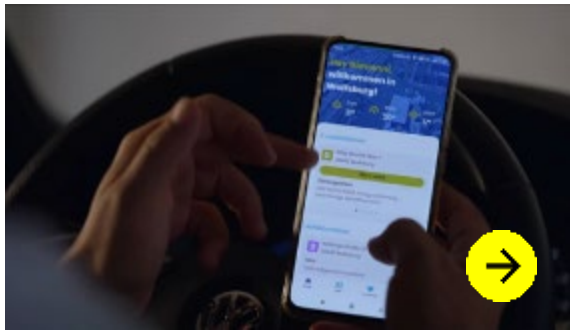
BMW
Local Hazard Information

Caruso
Sustainable use of
of electric drives



FIWARE
Smart Parking

FREE NOW
Travel mode recommendation in accordance with weather conditions

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

Join the Data Sharing Community

Funded by:

Federal Ministry for Digital and Transport

on the basis of a decision by the German Bundestag

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Wrap Up!

(Invitation to join forces)

Olaf-Gerd **Gemein**

Business Architect, orbiter DataSpace GmbH