

Data Spaces Symposium

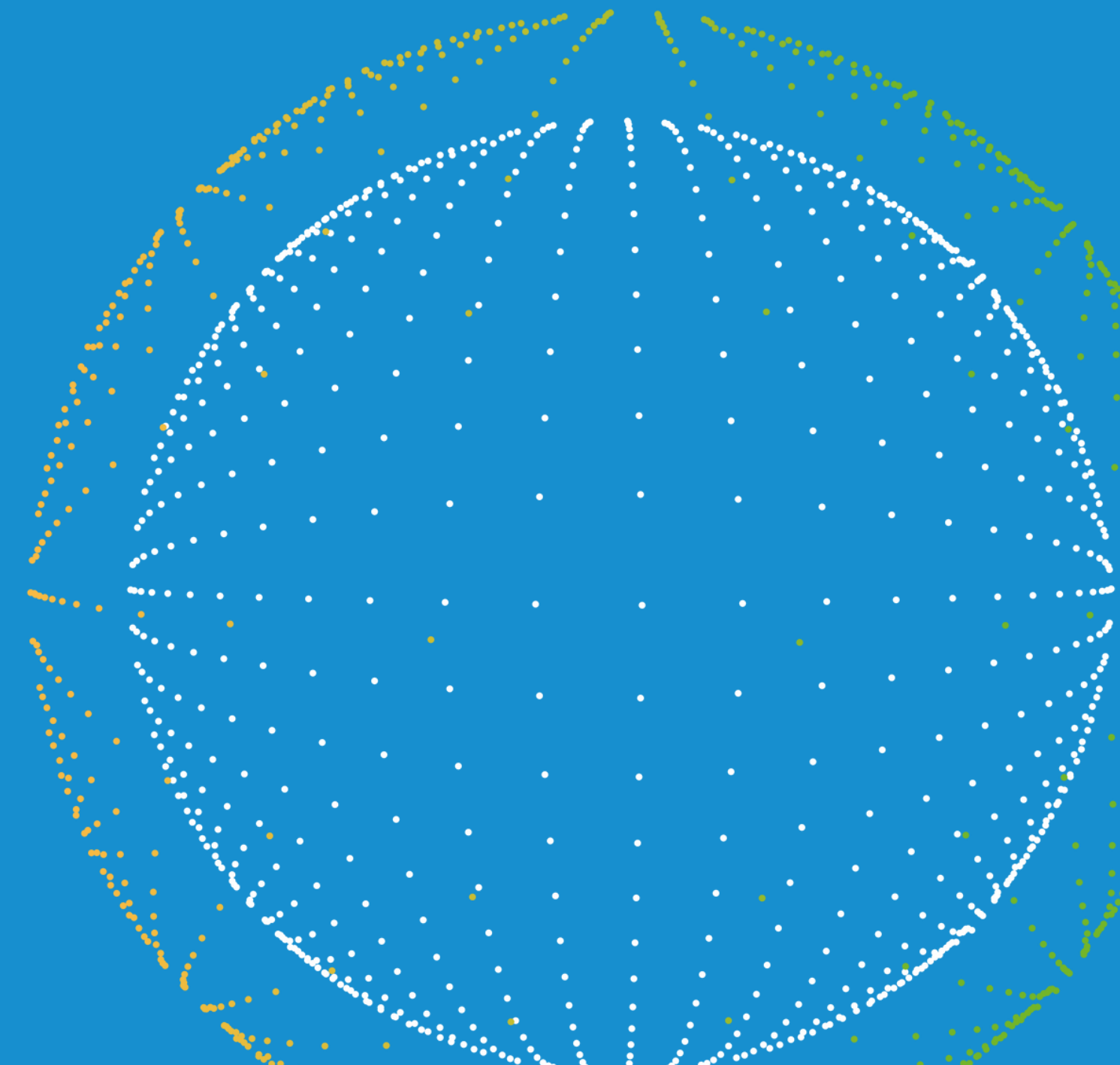
**Vertical session: Manufacturing,
supply chains and logistics**

March 13, 15:30 - 16:40

Moderator: Giulia Giussani

Senior Digital Innovation Manager at IDSA

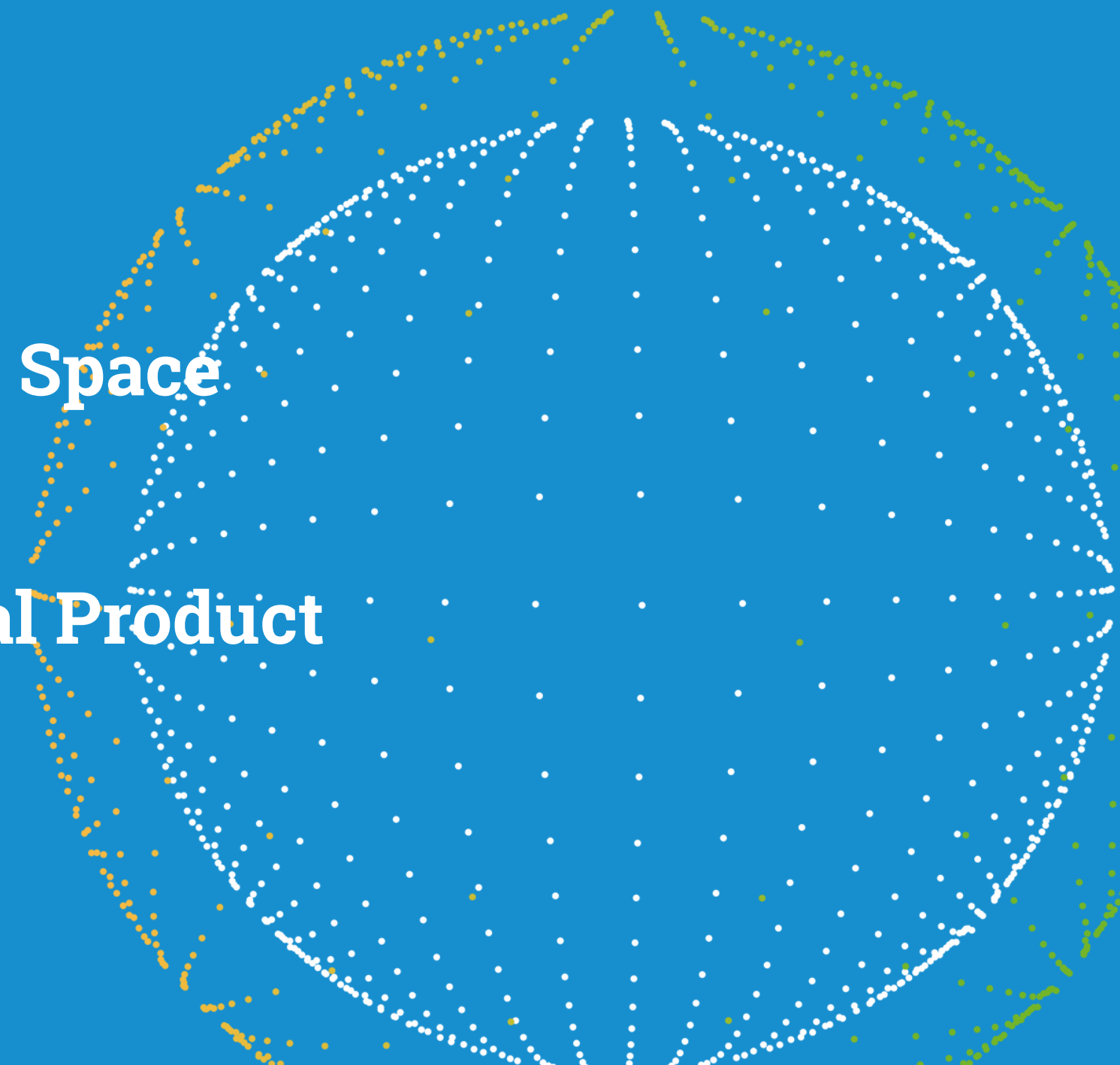
& DSSC Relationship Manager for manufacturing



Data Spaces Symposium

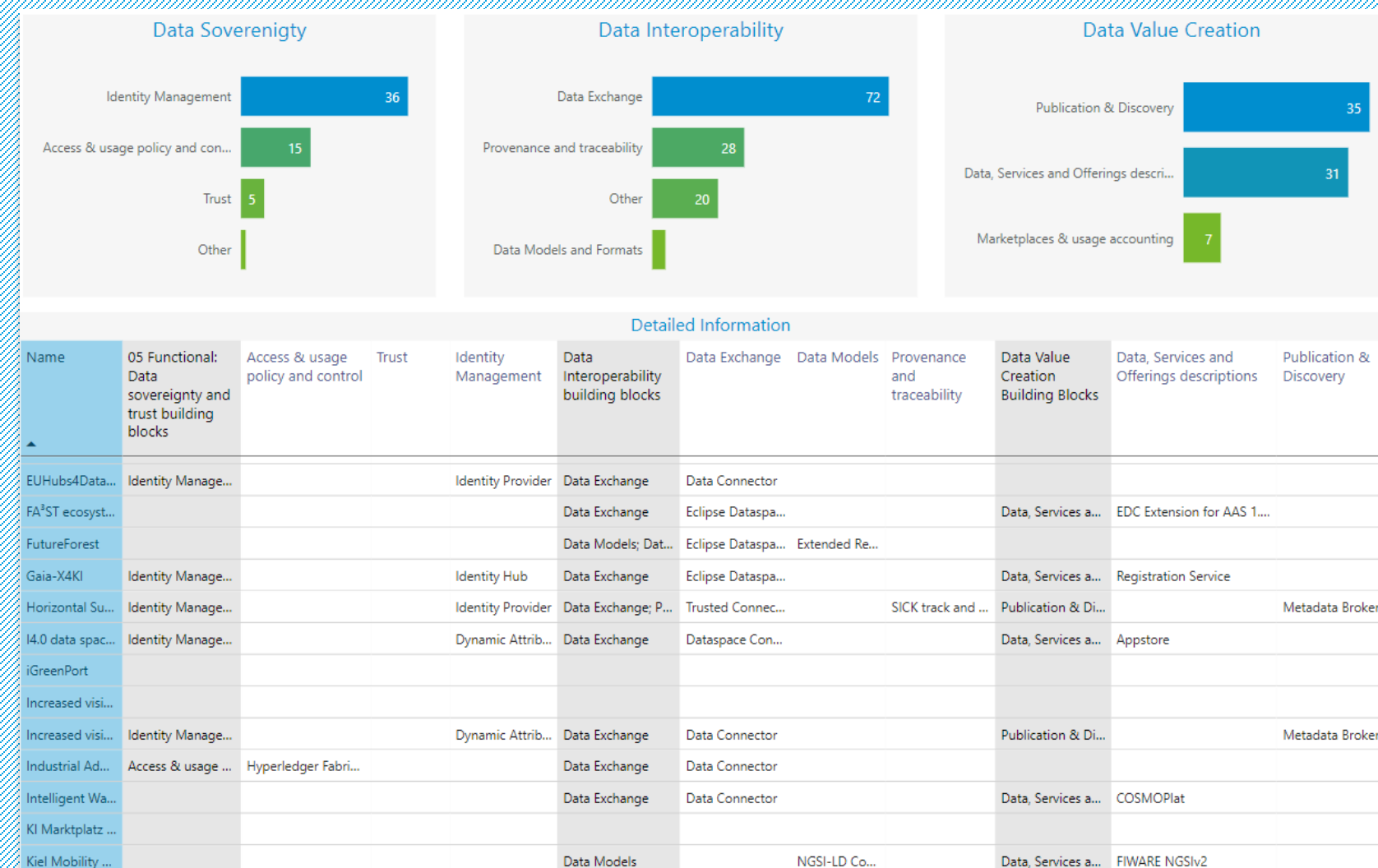
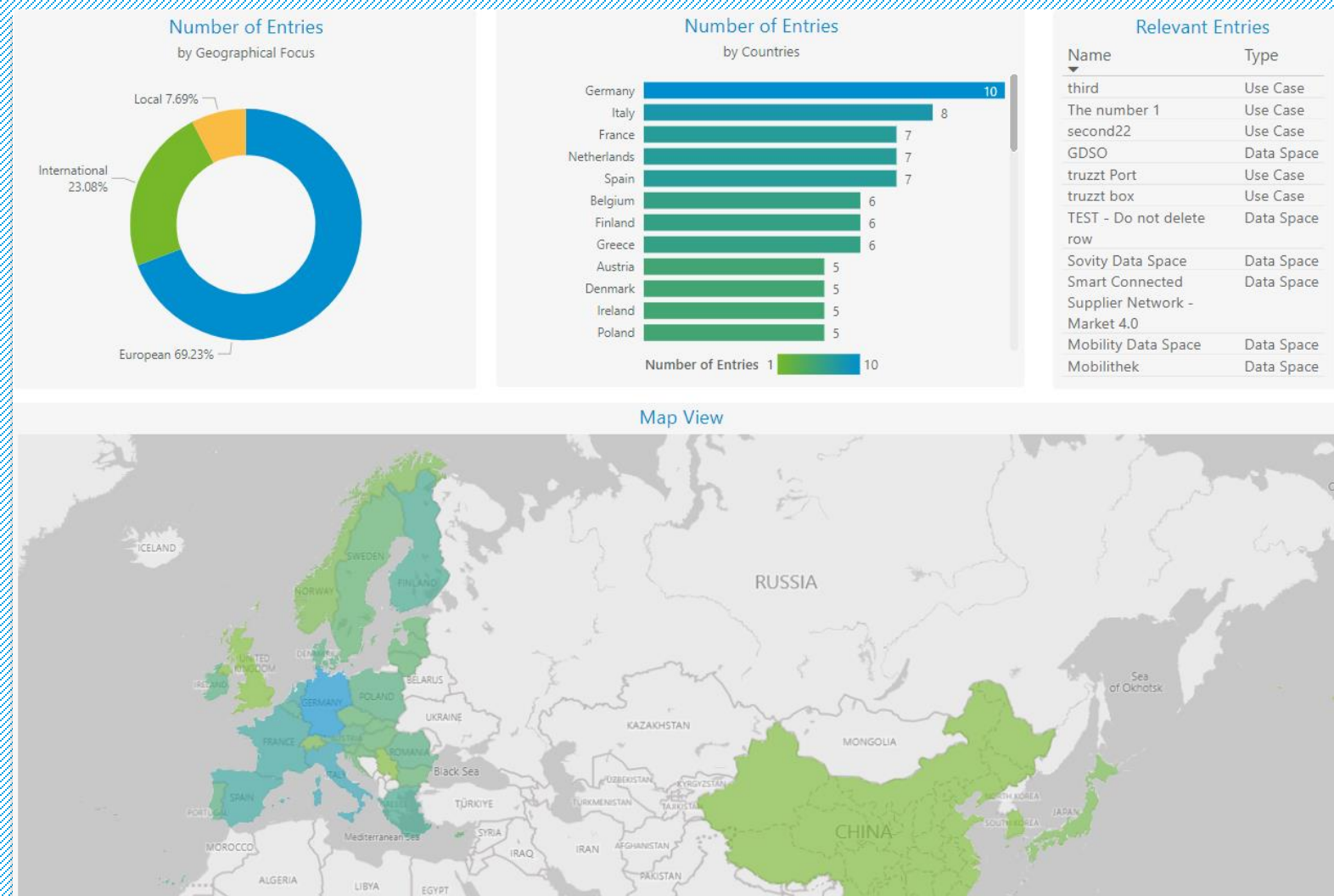
Vertical session: Manufacturing, supply chains and logistics

- **Keynote: The European Manufacturing Data Space**
- **5 Pitches**
- **Panel discussion: Data spaces and the Digital Product Passport - a perfect fit**



The new Data Spaces Radar

40+ cases in the manufacturing, logistics, supply chain



Check out the radar

Add a case to the radar

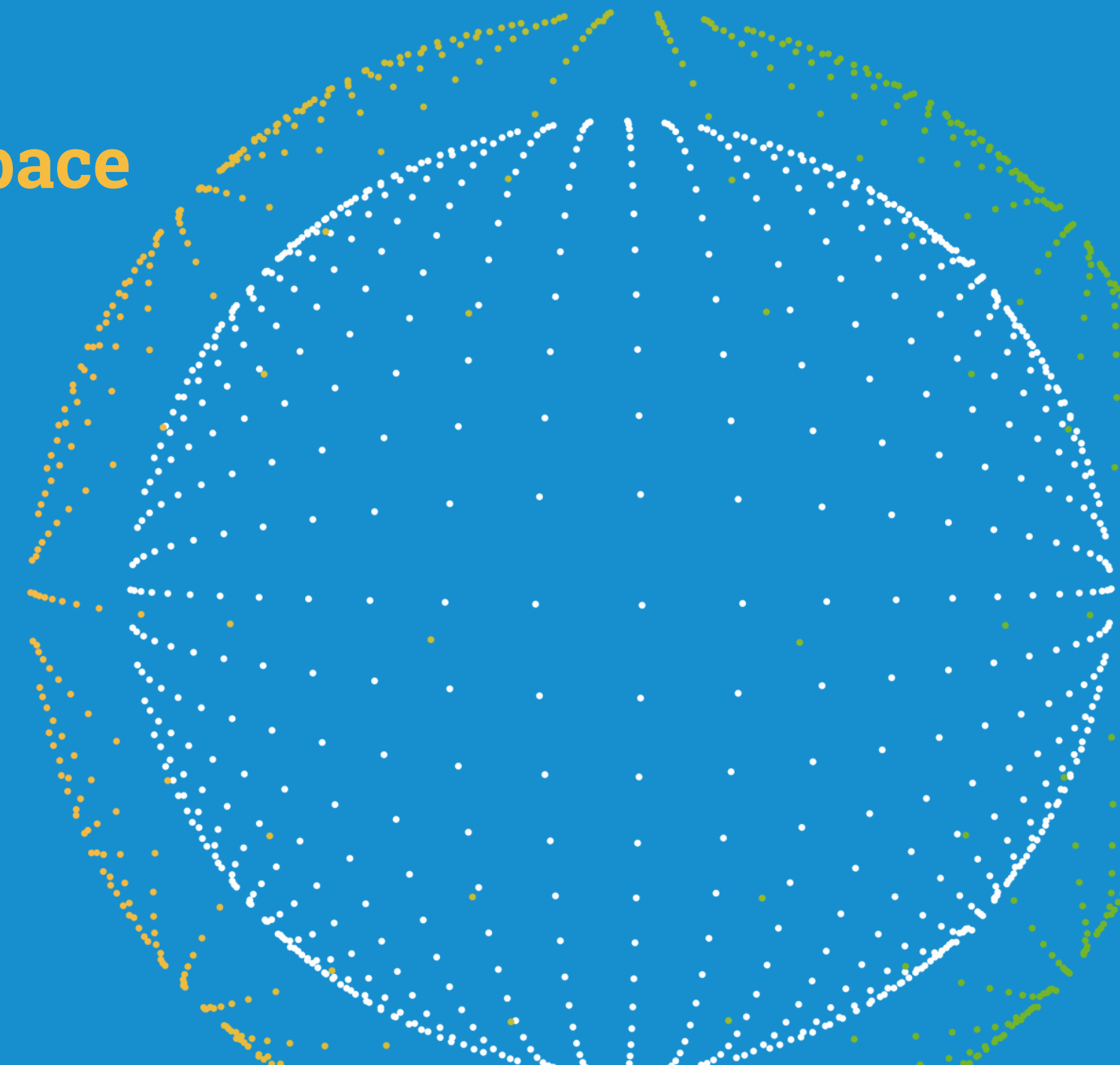


Data Spaces Symposium

Keynote: The European Manufacturing Data Space

15:30 - 15:40

Oscar Lazaro, INNOVALIA



EU ECONOMIC SPACES

1993



EUROPEAN SINGLE MARKET

European Economic & industrial transformation

2023



EUROPEAN COMMON DATA SPACES

Industrial & public administration digital transformation. European data economy pillar

2030



European Net-Zero Space

Data Space 4.0 is a flagship initiative of

EU DATA STRATEGY

14



EOSC (European Open Science Cloud)





Volatility



Complexity

VUCA



Uncertainty



Ambiguity




DATA SPACES FOR VUCA




BIG

 **Factory
internal**

COMMON

 **Supplier
network**

 **Cross-factory
manufacturing network**

OPEN



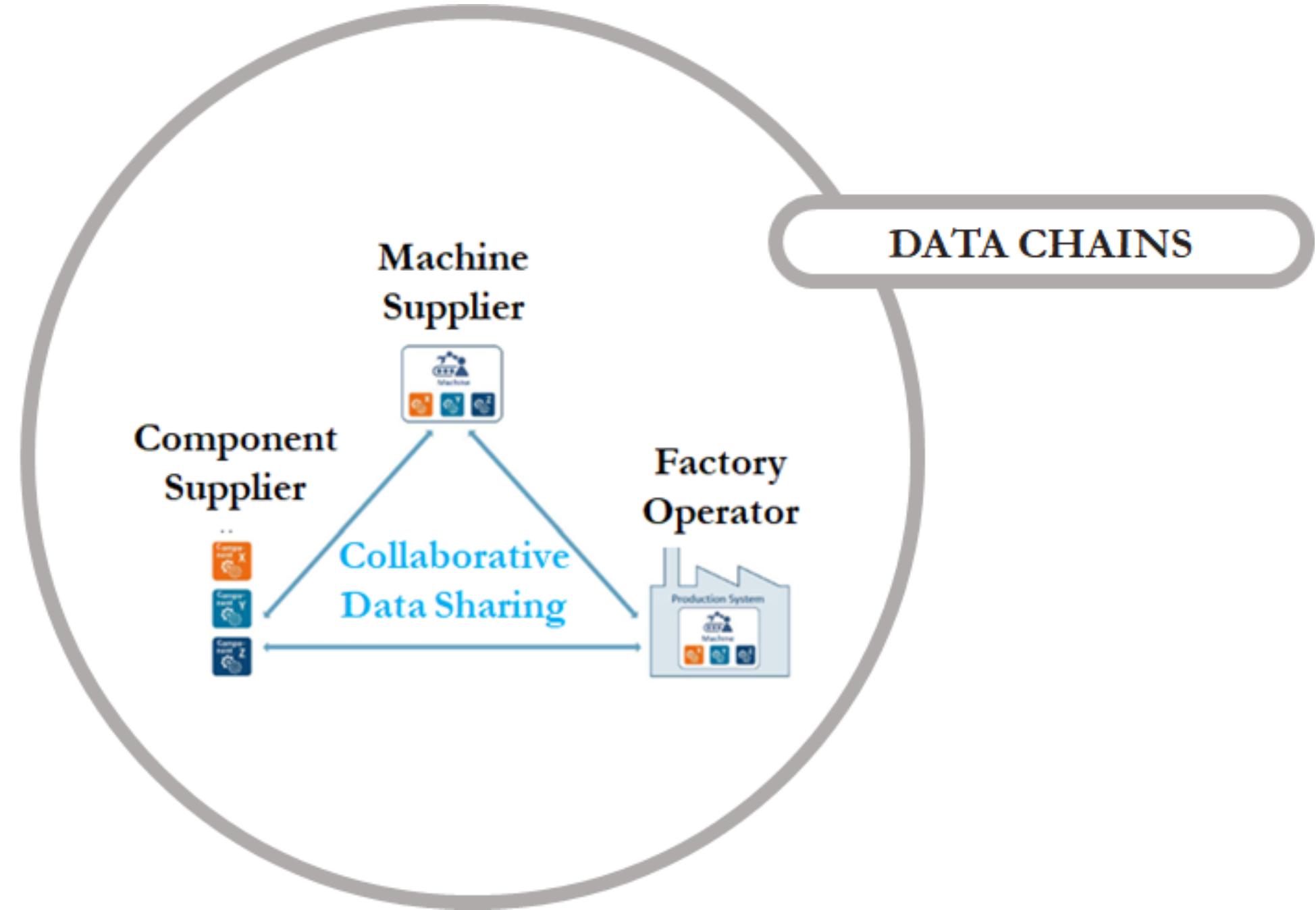
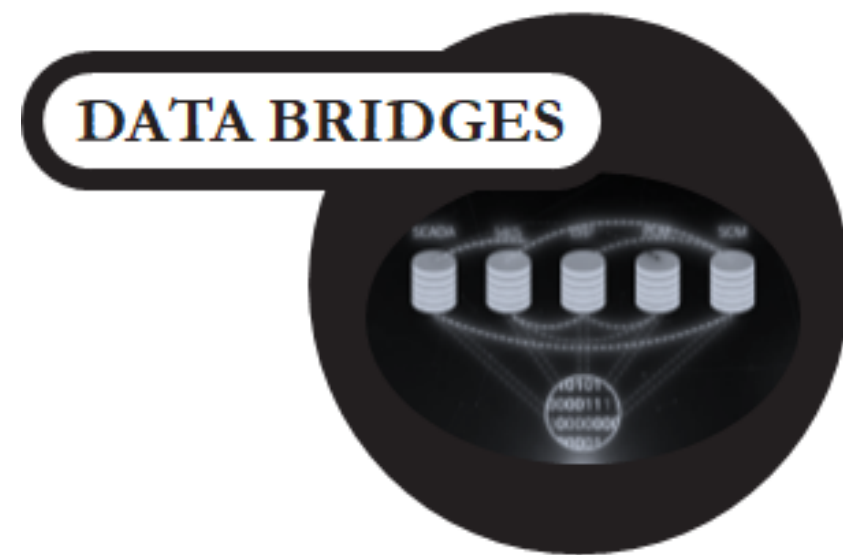
80%

Industrial Data is Never Used

<https://www.europarl.europa.eu/news/en/headlines/society/20220331STO26411/boosting-data-sharing-in-the-eu-what-are-the-benefits>

ONE DATA ONE USE

GLOBAL MANUFACTURING NETWORK EVOLUTION



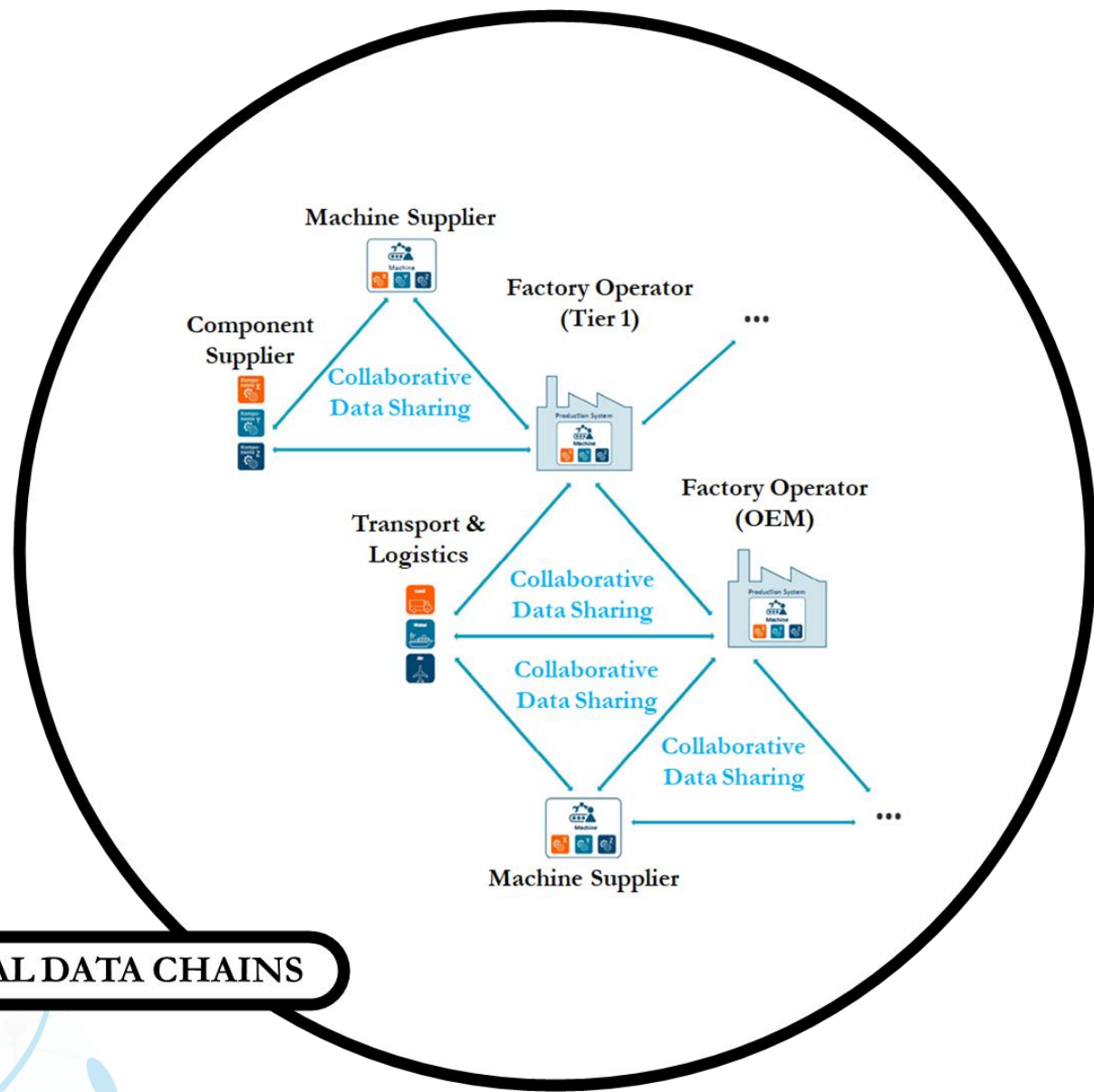
One Data ●
One Use

Data Space 4.0 is a flagship initiative of

A close-up photograph of two hands shaking in a firm grip, symbolizing partnership and agreement. The hands are wearing light-colored, patterned shirts. The background is a soft, out-of-focus office setting. The entire image has a blue tint and is framed by a white border.

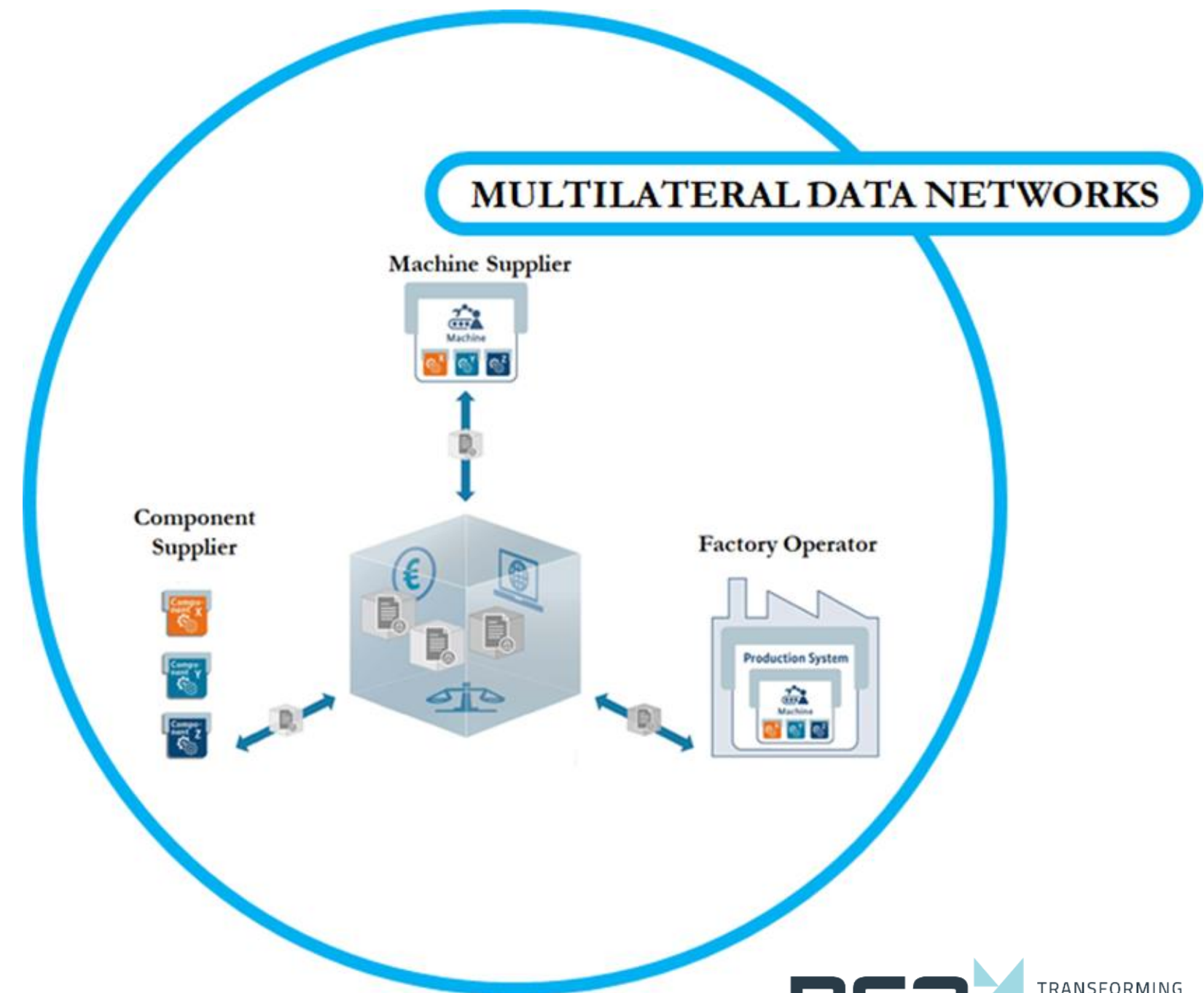
ONE PARTNER,
ONE PROJECT

GLOBAL MANUFACTURING NETWORK EVOLUTION



MULTILATERAL DATA CHAINS

One Partner ●
One Project



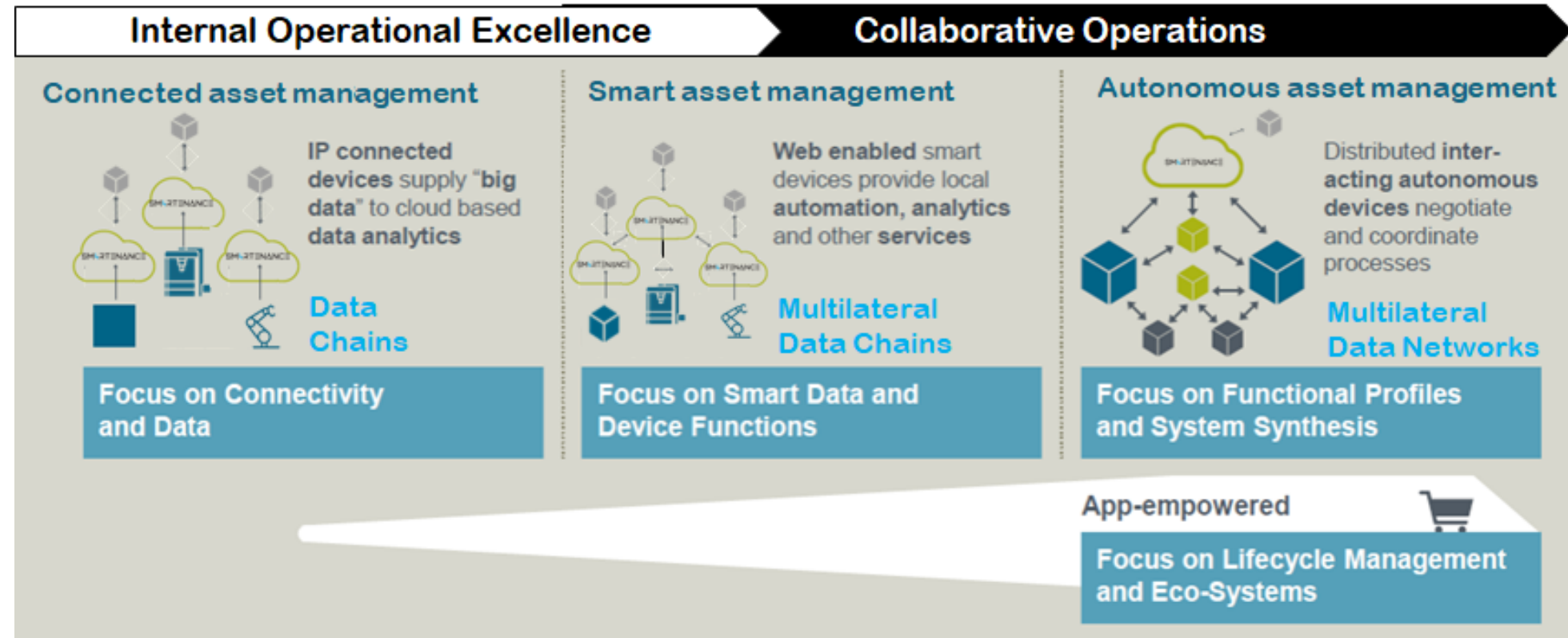
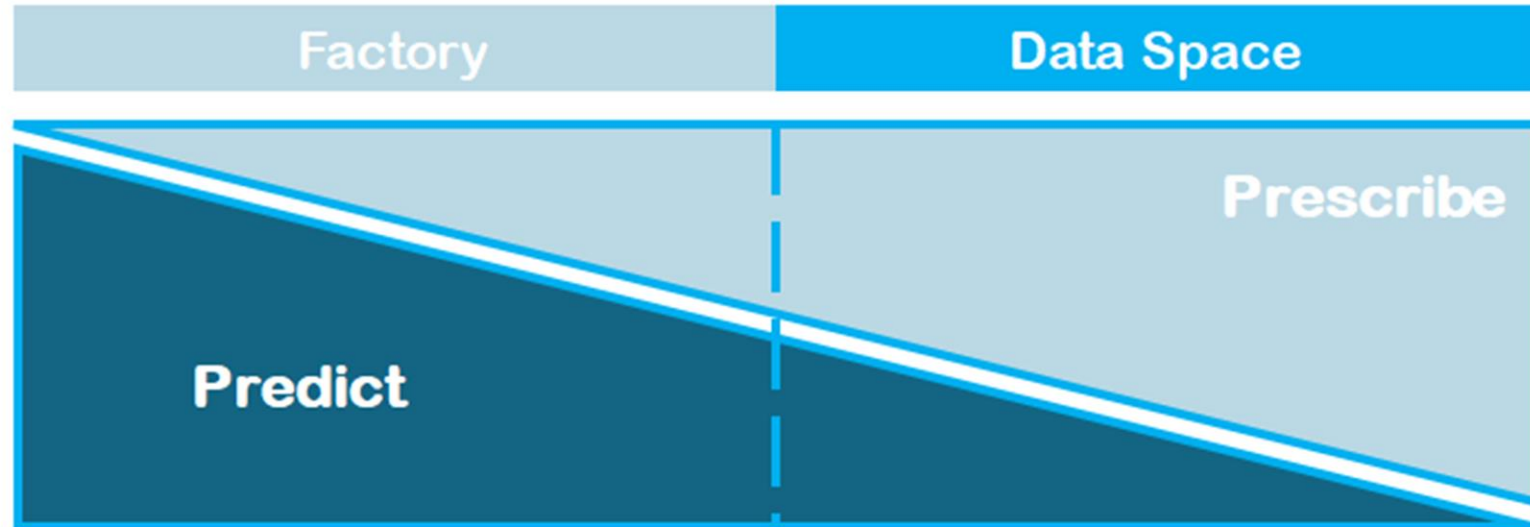
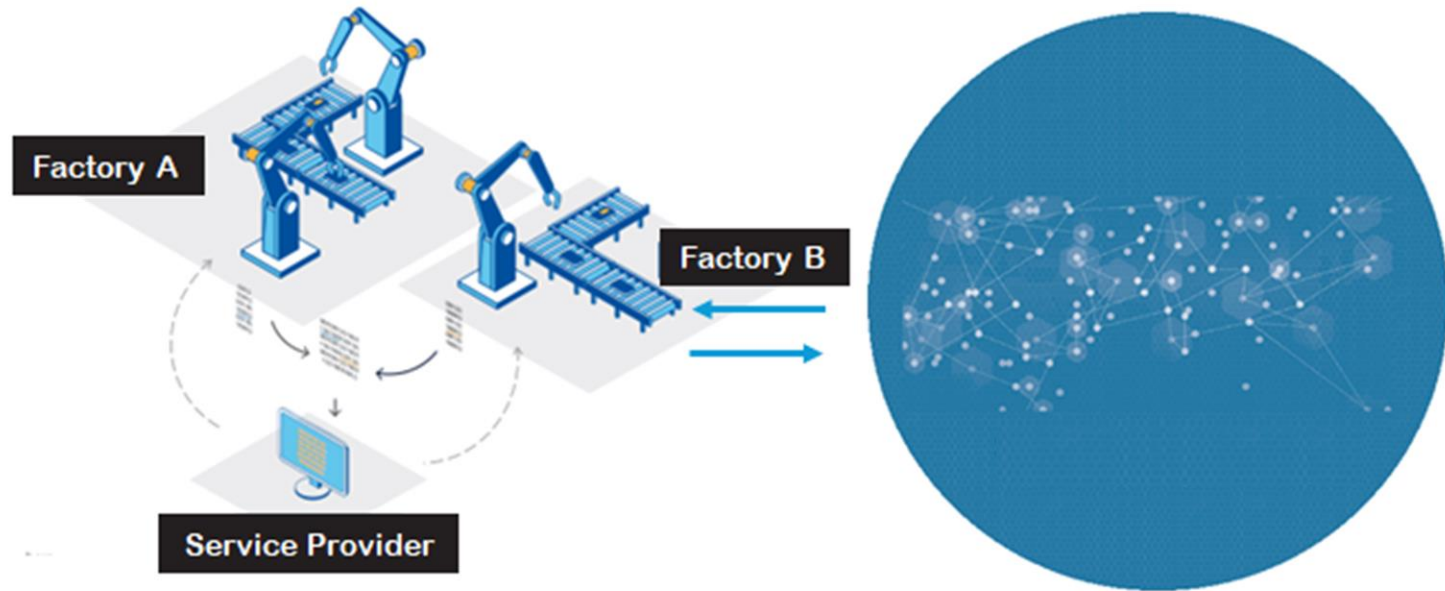
A hand is pointing towards a glowing, circular digital interface. The interface features the text "360°" in a stylized, glowing font, with a circular arrow icon to its right. The background is dark with blue and red light trails and bokeh effects.

360°

**360° Data
Integration**

360° DATA INTEGRATION:

DATA SPACE 4.0 CONTINUUM



Connected



Smart

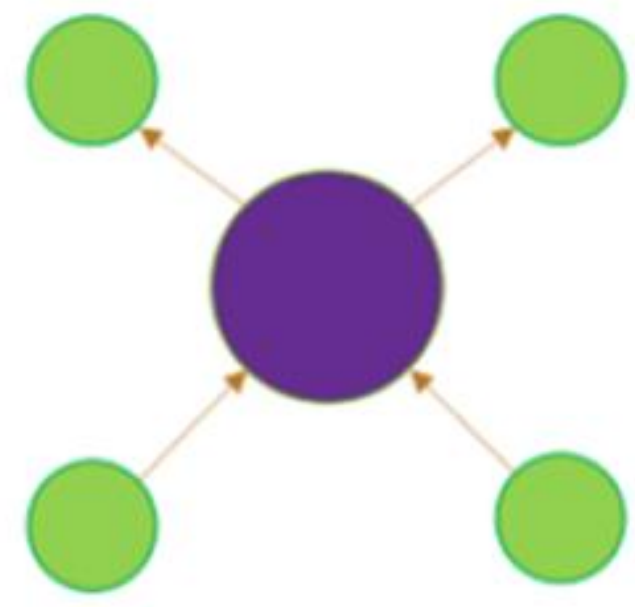


Autonomous

360° DATA INTEGRATION:

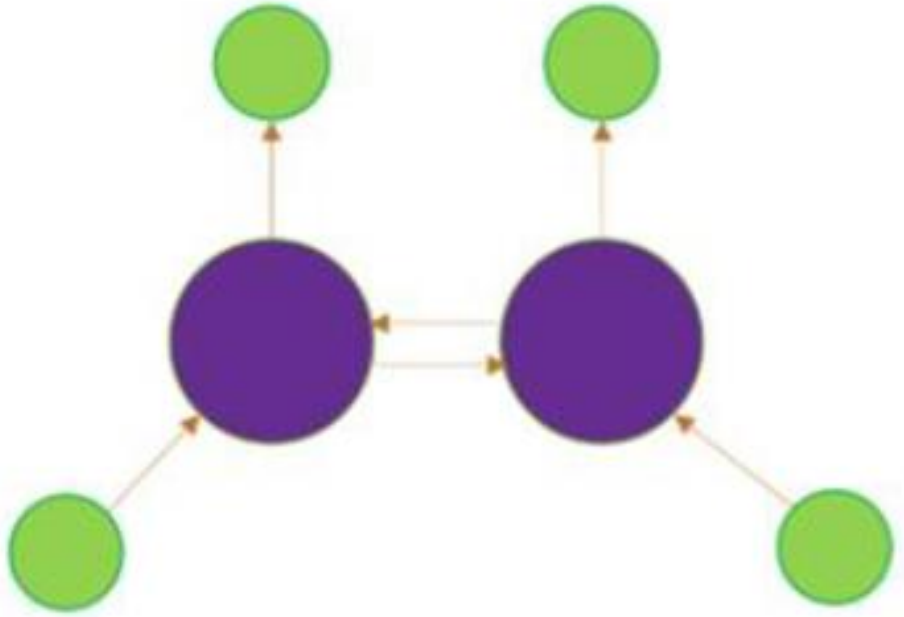
DATA SPACE 4.0 CONTINUUM

Today

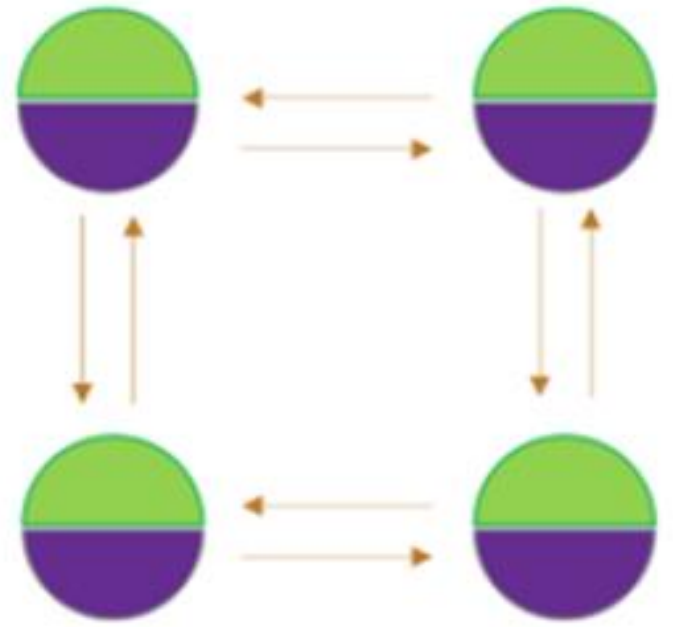


Centralized Data Space Authority

2026



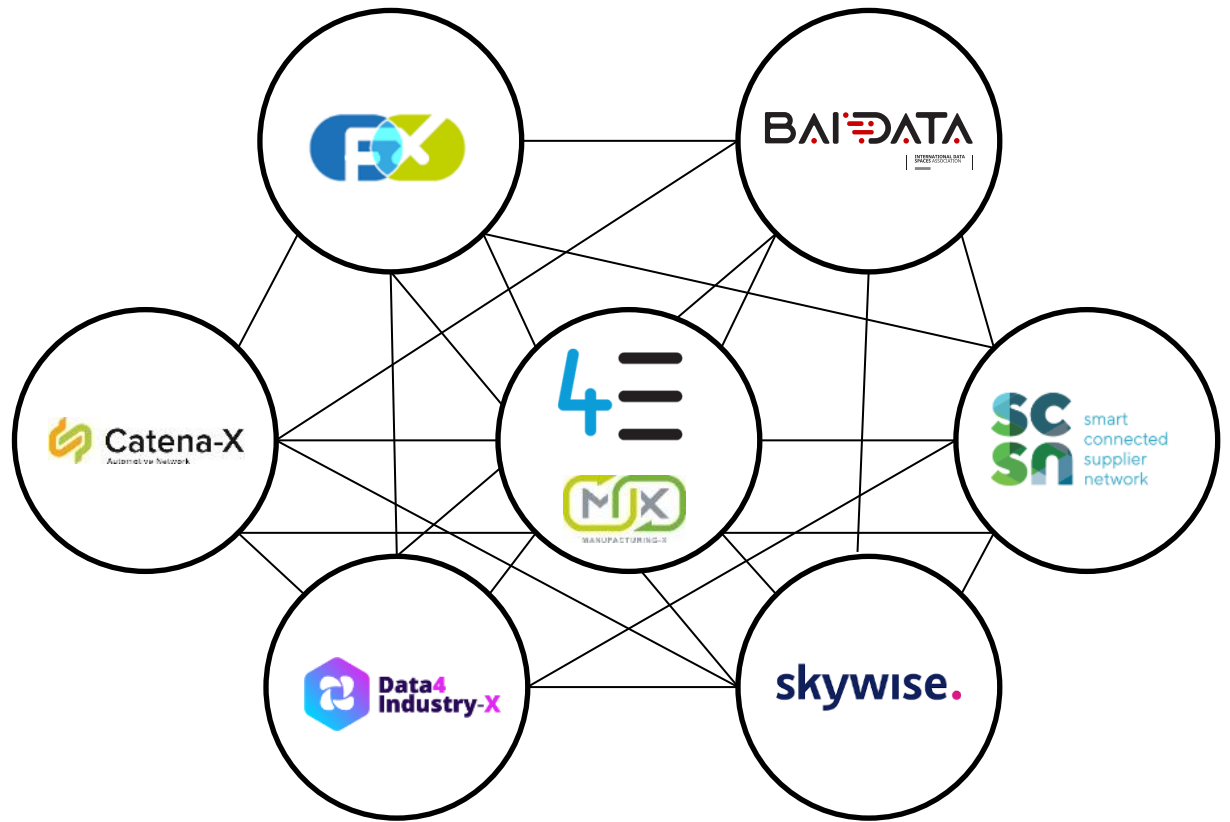
Federated/Distributed Data Space Authority



Decentralized Data Space Authority



Embryonic

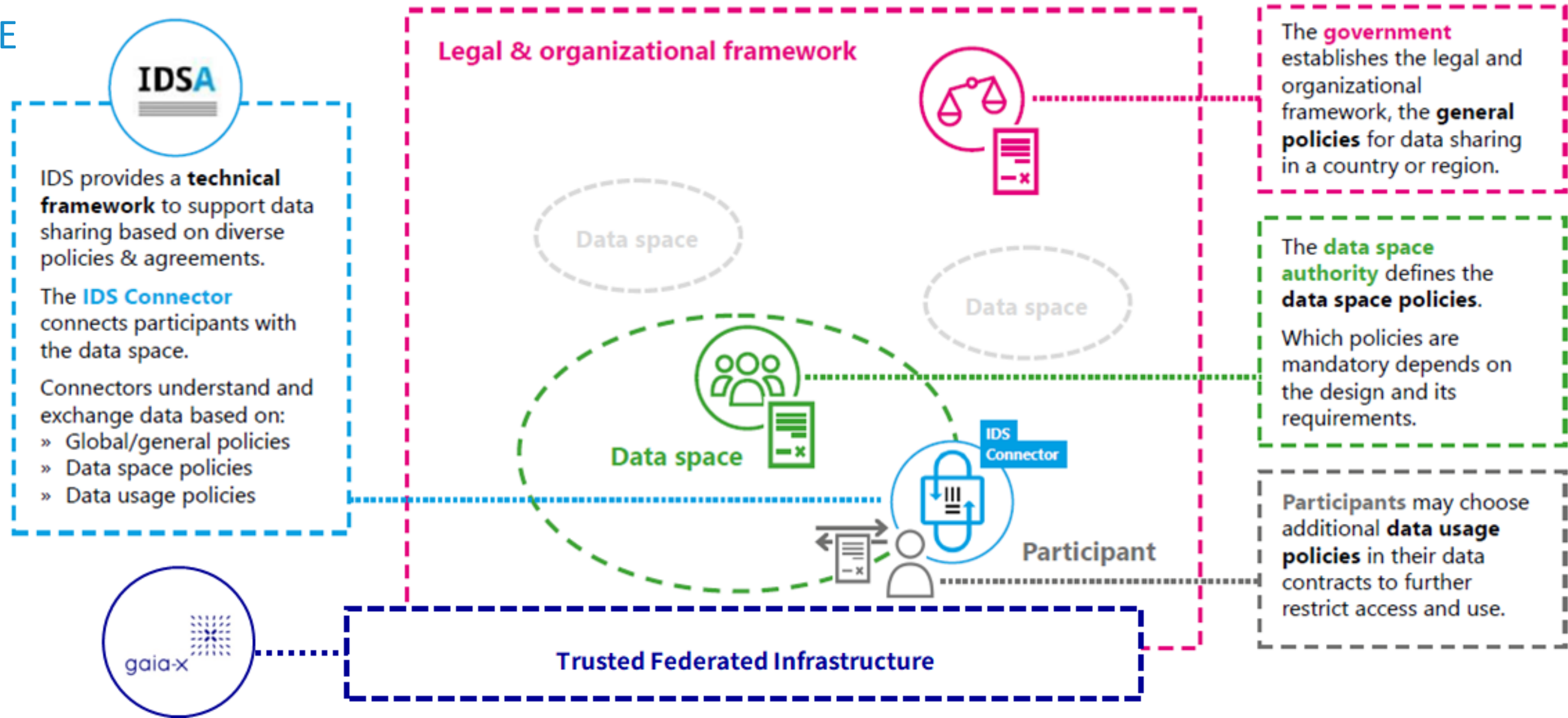


360° DATA INTEGRATION:

DATA SPACE 4.0 CONTINUUM

DATA SPACE

VISION



360° DATA INTEGRATION:

DATA SPACE 4.0 CONTINUUM

DATA SPACE FEDERATION



VISION

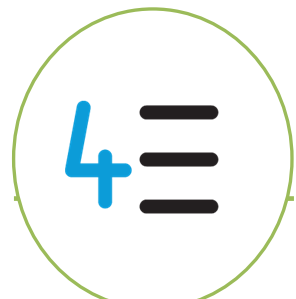
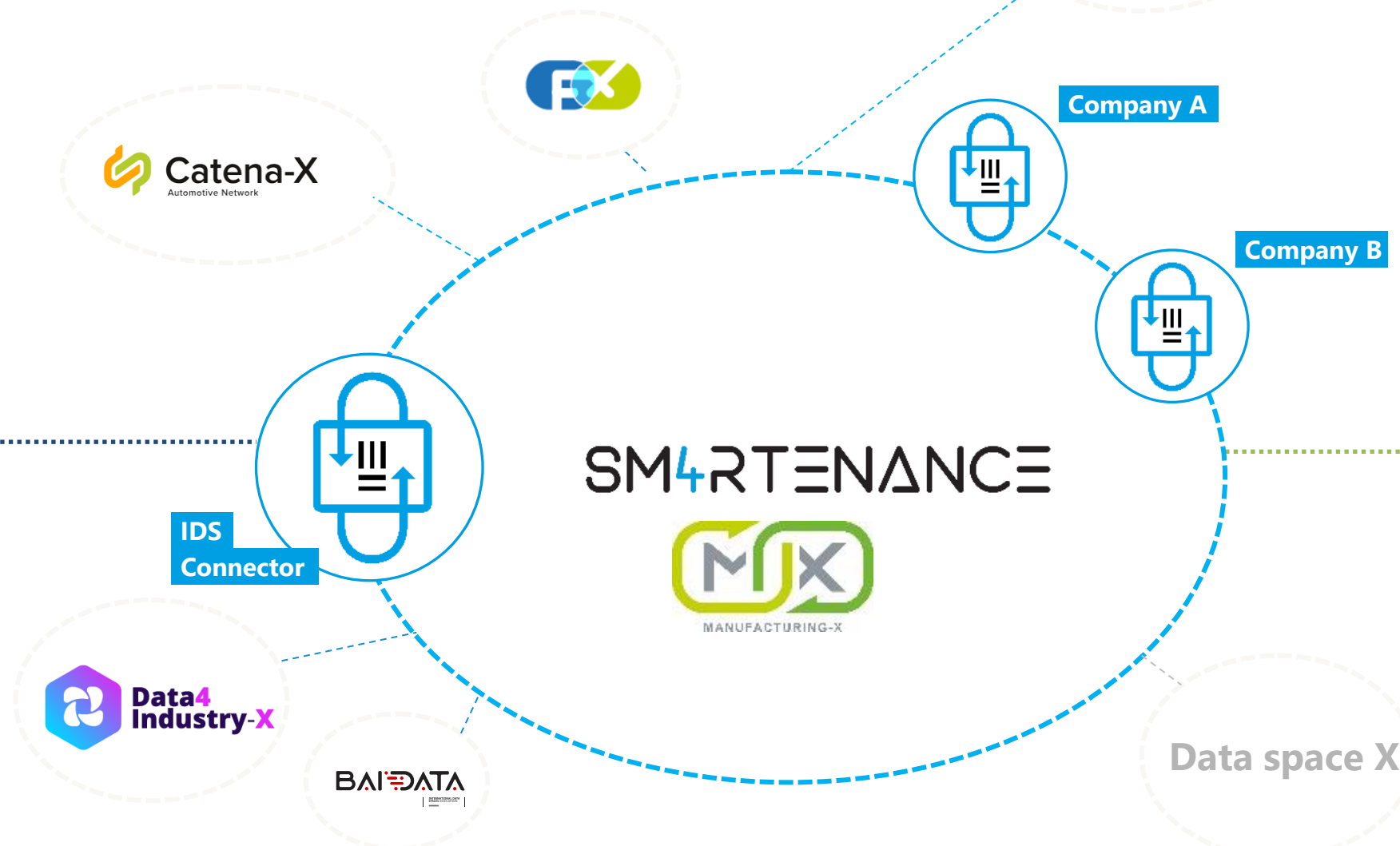
IDS provides a **technical framework** to support data sharing based on diverse policies & agreements.

The **IDS Connector** connects participants with the data space.

The connector understands the data space policies and shares data according to these policies.

Legal & organizational framework

The European Commission is the governing body that establishes the legal framework for data sharing in Europe.



Data space federation policies

Sm4rtenance **builds and sets the federation & interoperation policies of the data space federation.**

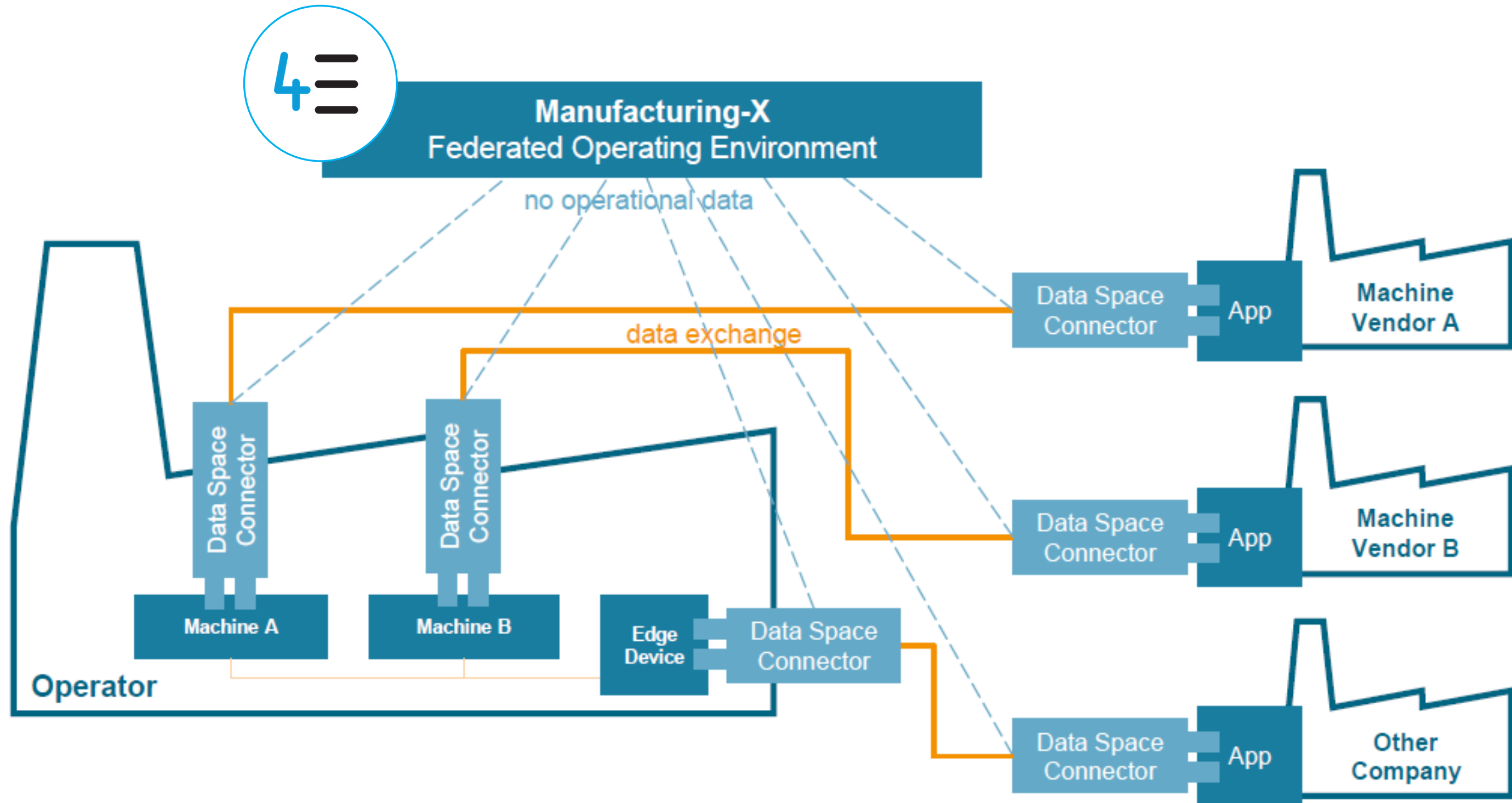
As the **data space federation authority**, it defines the organizational rules and policies for this specific asset 4.0 network federation.



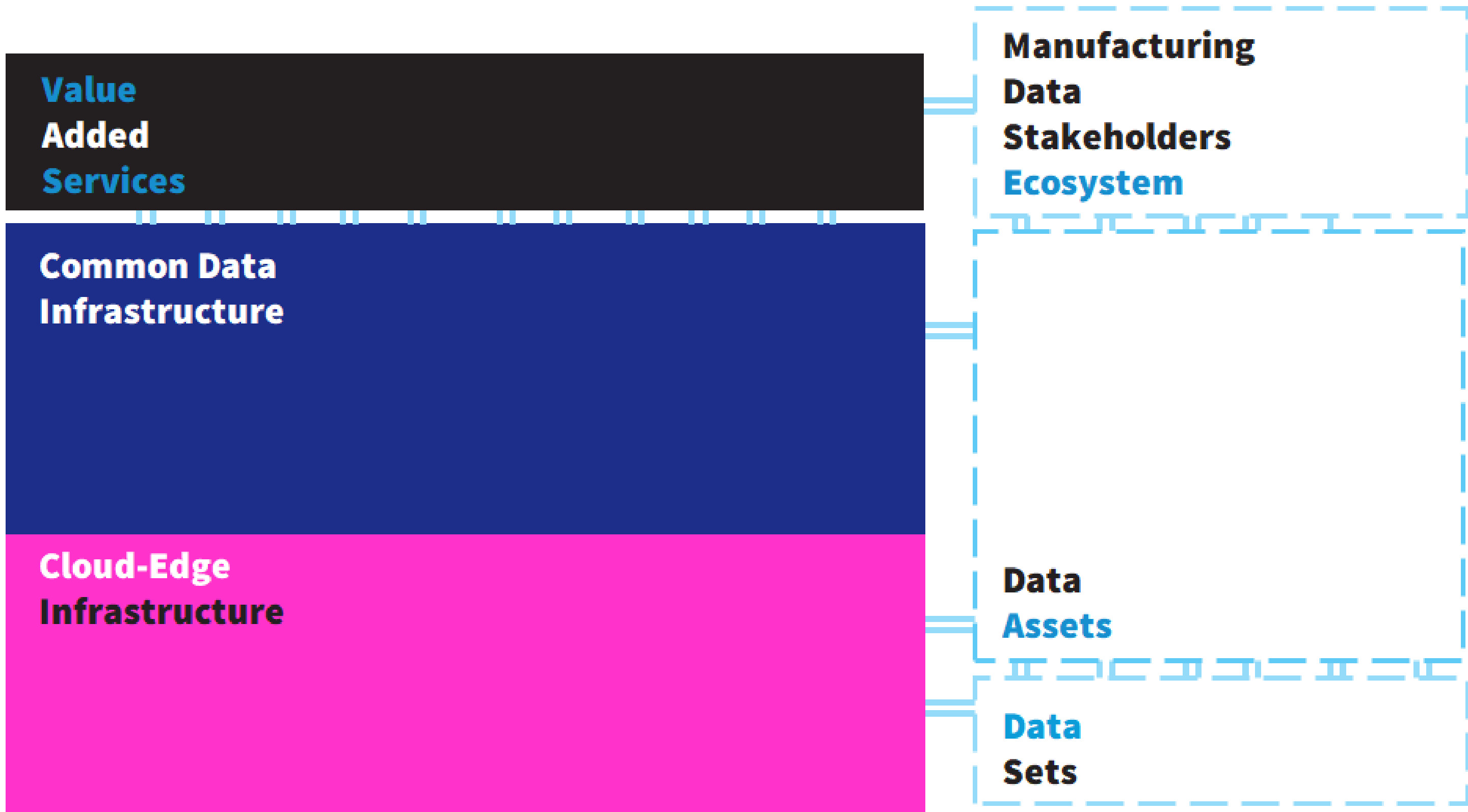
Trusted & Federated Infrastructure

360° DATA INTEGRATION:

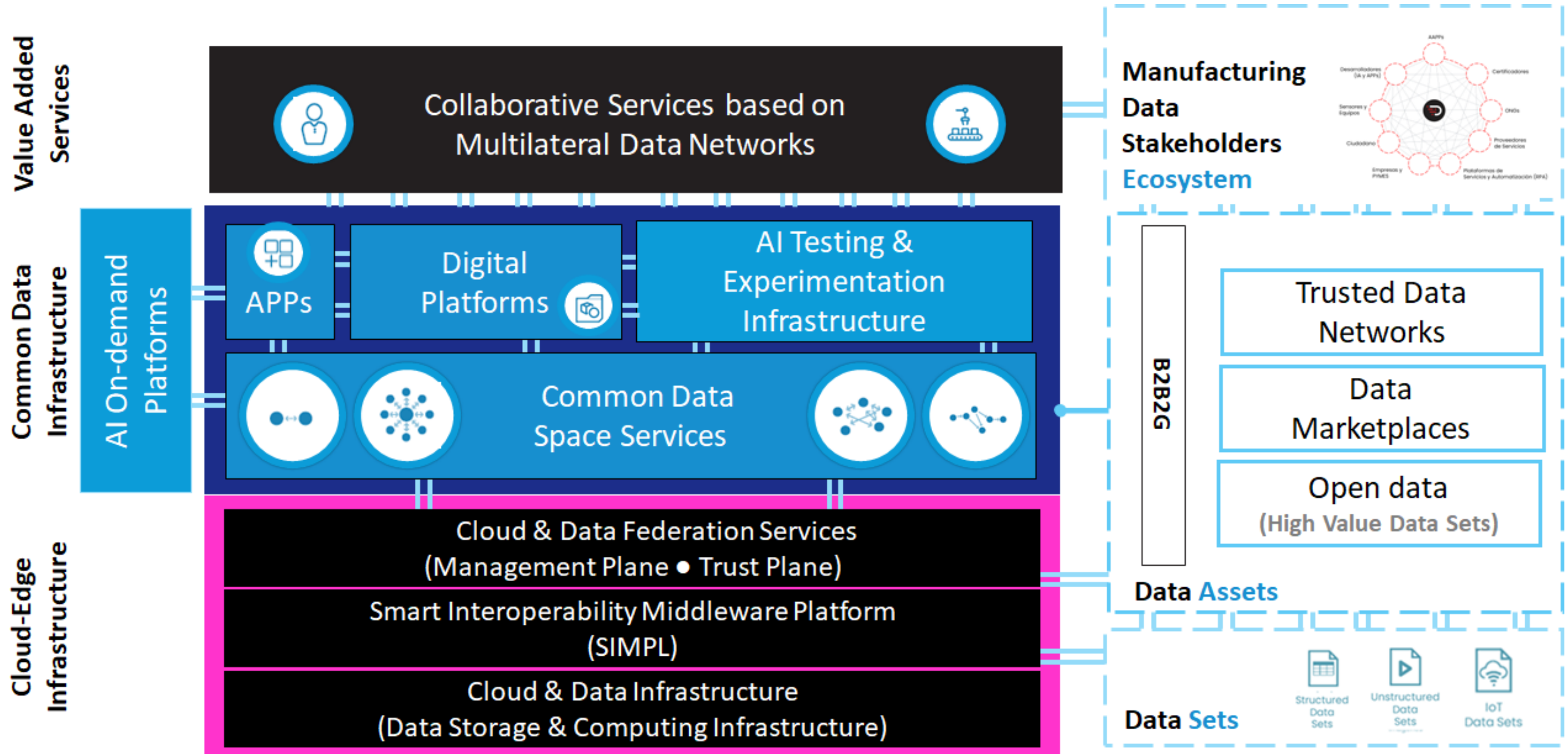
DATA SPACE 4.0 CONTINUUM



EU MANUFACTURING REFERENCE MODEL



EU MANUFACTURING REFERENCE MODEL





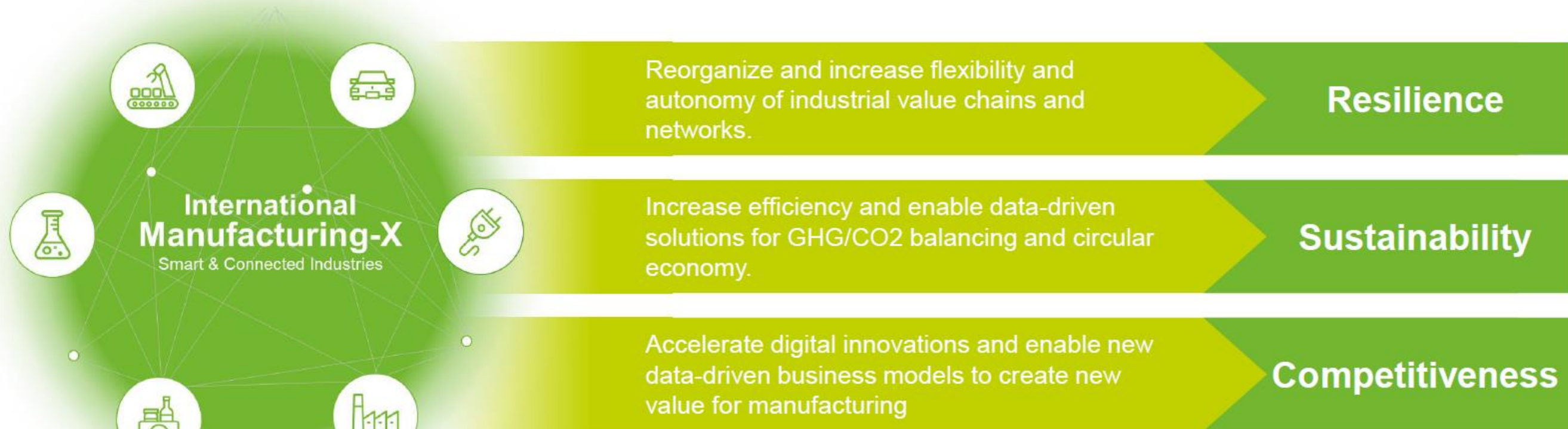
DATA MOVES AT
THE SPEED OF TRUST

GLOBAL MANUFACTURING DATA ECOSYSTEMS



INTERNATIONAL MANUFACTURING-X COUNCIL

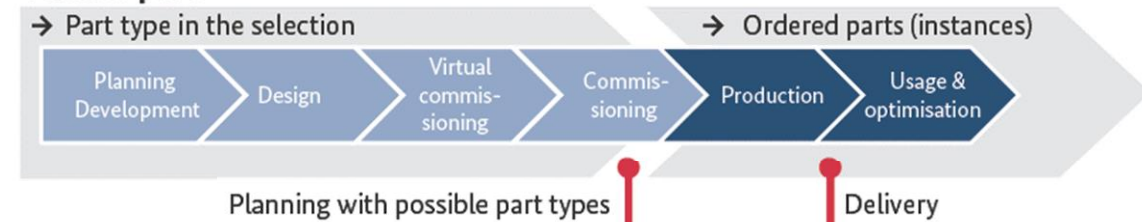
MAKE DATA WORK



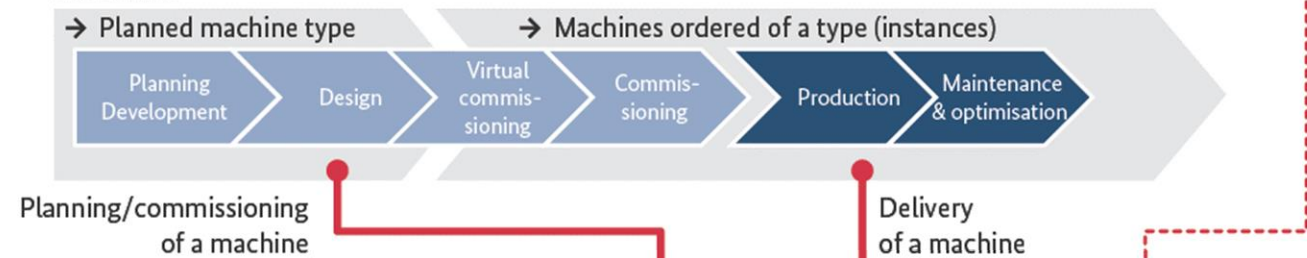
GLOBAL MANUFACTURING DATA ECOSYSTEMS



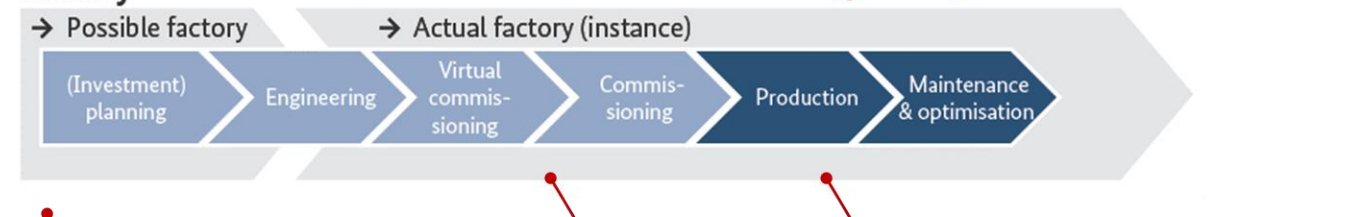
Vendor part



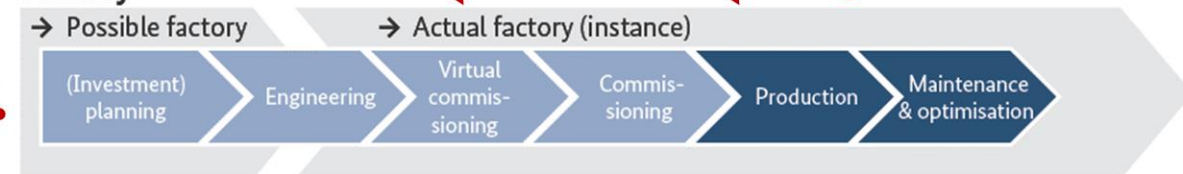
Machine



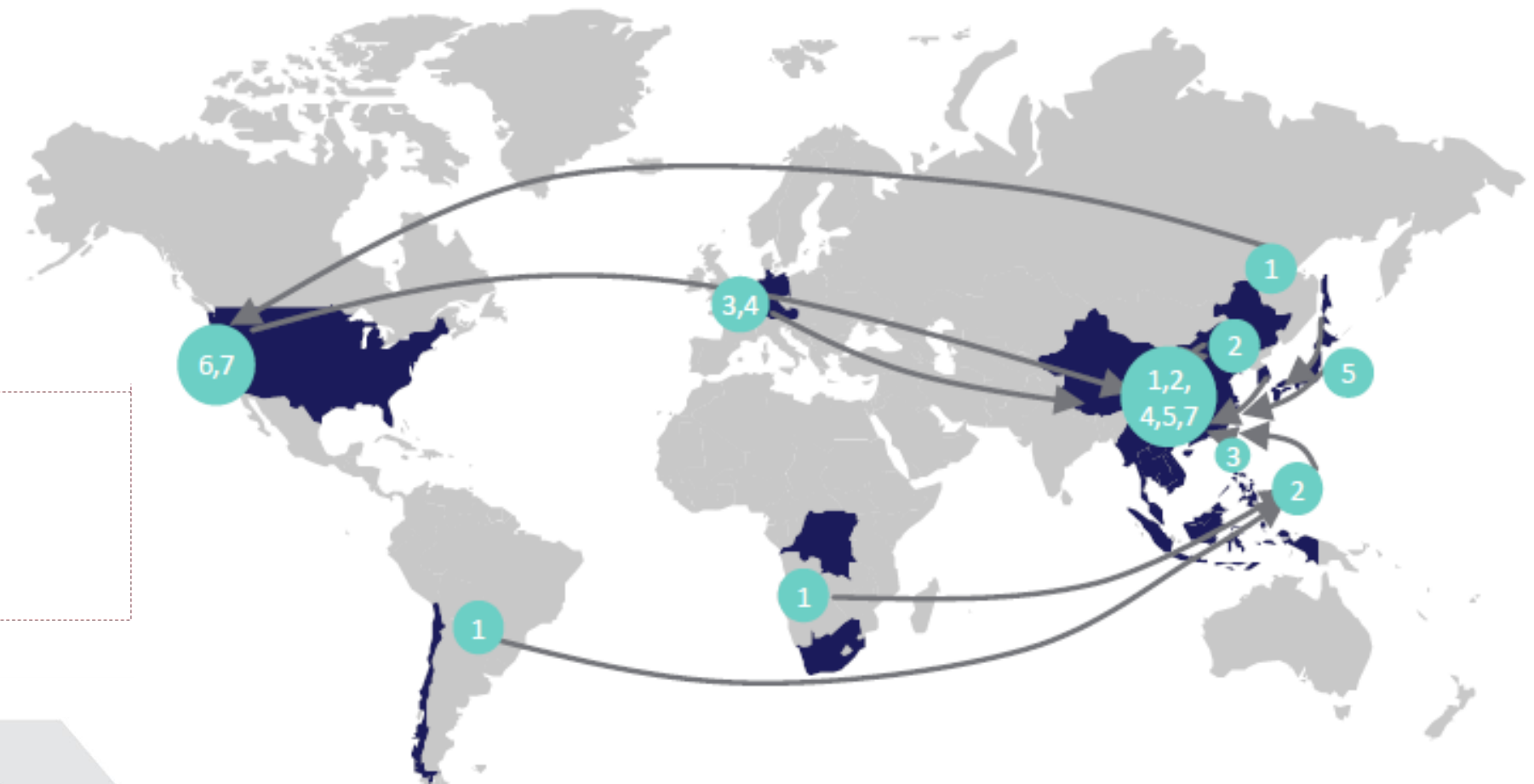
Factory



Factory



- 1 Metals imported, rare earth metals mined in China¹
- 2 Screen, flash memory from South Korea
- 3 Accelerometer imported from Germany
- 4 Near field communications controller from the Netherlands
- 5 Camera, Compass, LCD screen imported from Japan
- 6 Wi-Fi chip, Audio Chips imported from USA
- 7 Final assembly and testing in Shenzhen, China



DATAWEEK²⁴

JOIN.LEARN.SHARE.GET VALUE



Thank You!



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



Data Spaces Symposium

Unite. Innovate. Adopt.

Darmstadtium | Frankfurt region

Data Spaces Symposium

Pitches

15:40 - 16:00

SM4RTENANCE by Oscar Lazaro, INNOVALIA

UNDERPIN by Panagiotis Georgiou, MOTOR OIL GROUP

Circular TwAIn by Sergio Gusmeroli, POLITECNICO DI MILANO

TANGO by Dries Verhees, FLANDERS MAKE

EuProGigant by Gerald Ristow, SOFTWARE AG

SM4RTENANCE

 UNDERPIN

 Circular
TwAIn

TANGO

 EuPro
Gigant

Data Spaces Symposium

Pitch

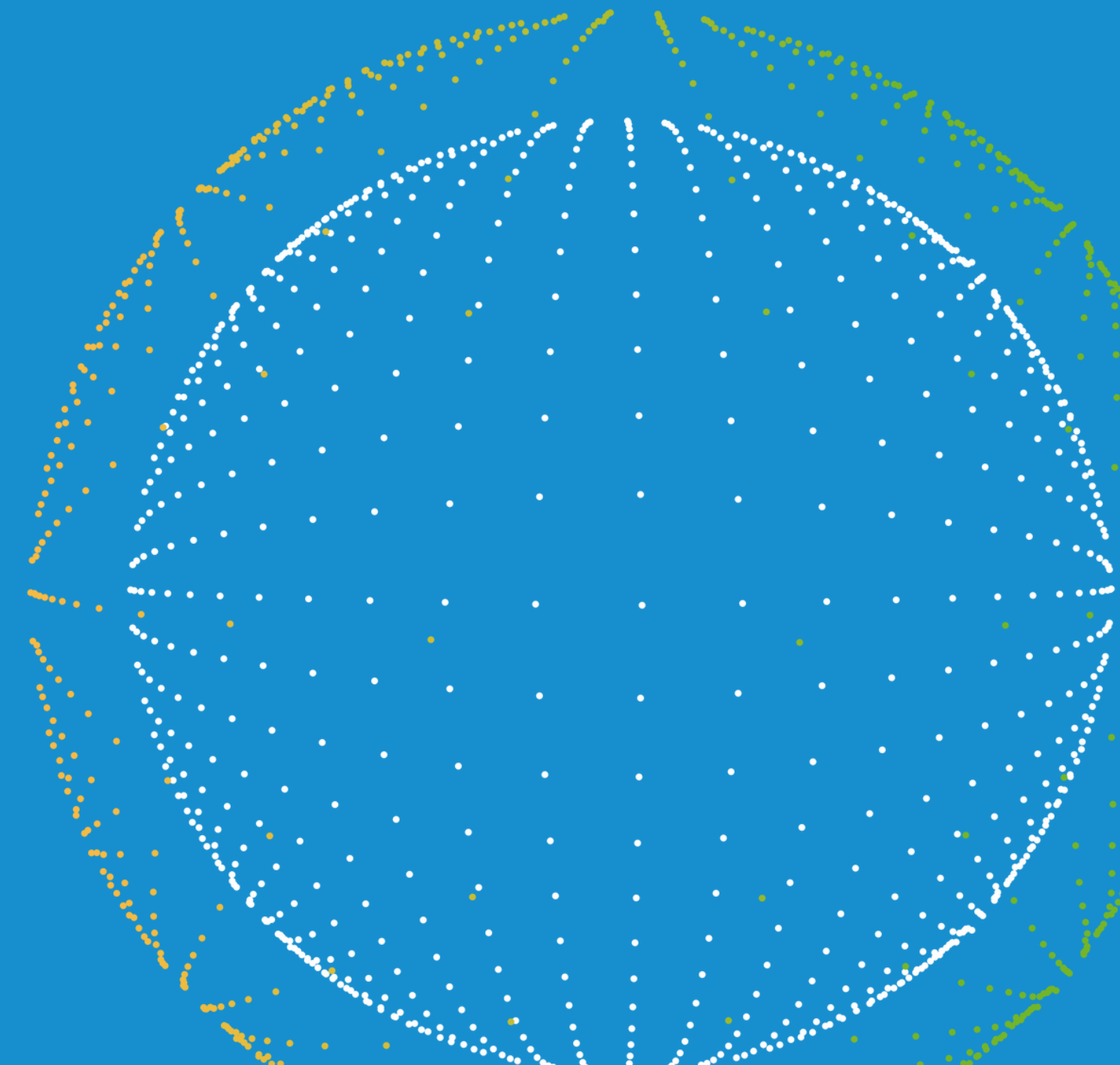
3 minutes

SM4RTENANCE by Oscar Lazaro, INNOVALIA



SM4RTENANCE

innovalia
ASSOCIATION



Pitch

SM4RTENANCE

What is the aim of the project?
What are the planned project outcomes?

- Create a federated European data space federation
- Outcomes based on data space 4.0 federation, data space ecosystem, data space services portal, collaborative operations and data chain trust framework.

What is the value for the development of data spaces within this domain?

- Enhancing maintenance processes and improving the efficiency and sustainability of industrial operations.
- Data privacy, intellectual property, regulatory compliance
- Interoperability & federation enablers

What benefits for the industry?
When will the results be available?

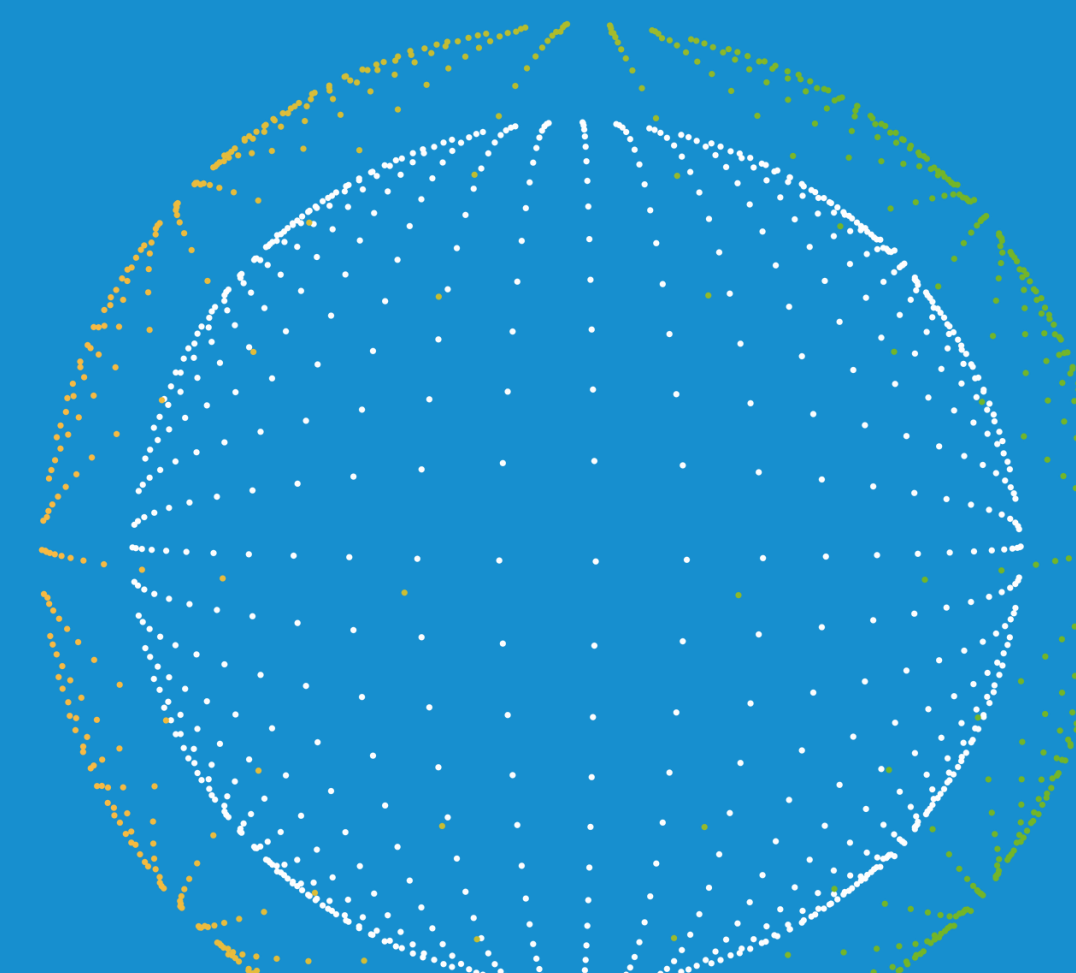
- Asset 4.0 collaborative engineering,
- Collaborative net-zero operations services,
- Condition monitoring,
- Circular asset management
- European Data Strategy - First release of federation (End 2024) - End project (October 2026)

SM4RTENANCE

innovalia
ASSOCIATION

More info at: www.sm4rtenance.eu

Contact me at: Oscar Lazaro olazaro@innovalia.org Carmen Polcaro cpolcaro@innovalia.org

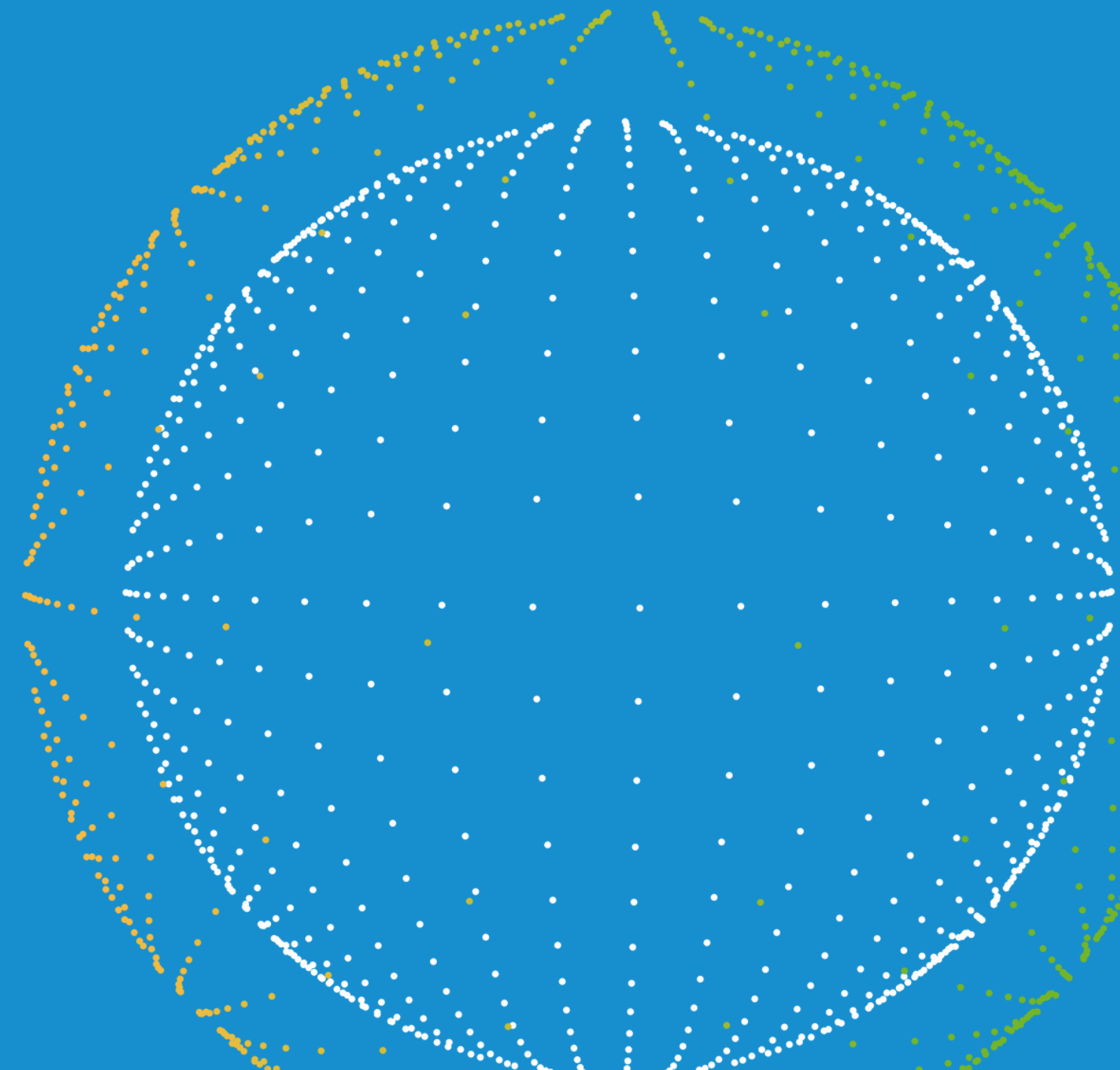


Data Spaces Symposium

Pitch

3 minutes

UNDERPIN by Panagiotis Georgiou, MOTOR OIL GROUP



Pitch

UNDERPIN

What is the aim of the project?
What are the planned project outcomes?

- To provide a sustainable dataspace towards carrying out dynamic asset management and predictive maintenance in the Manufacturing domain for Refineries & Wind Farms
- To establish a trustworthy and secure environment for cross organizational data sharing and exchanging that ensures data sovereignty.

What is the value for the development of data spaces within this domain?

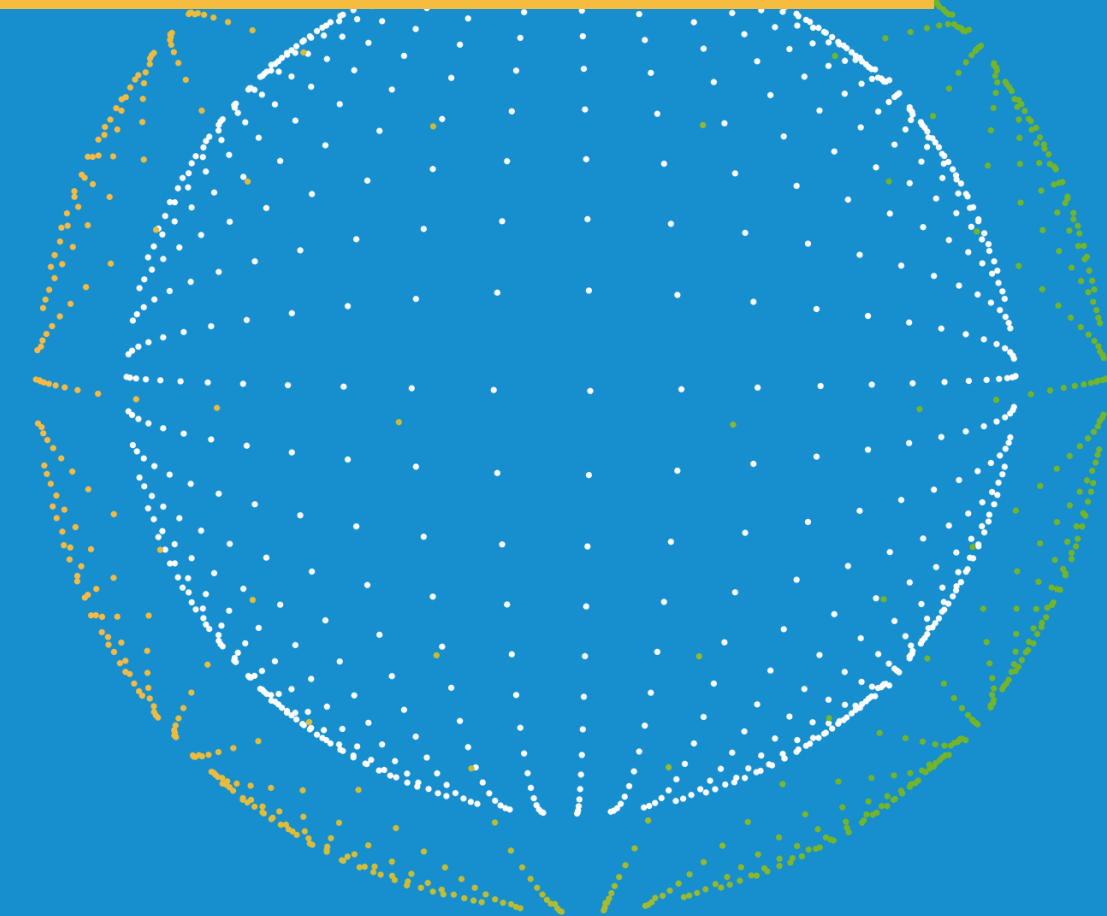
- Improvement of production processes, leading to efficiency & cost savings
- Creates the circumstances for data sharing , inter connection of dataspace and exploitation of new Business areas
- Bringing together Manufacturers, SMEs, Governments, Research

What benefits for the industry?
When will the results be available?

- Data sharing for circularity in line with European Circular Economy Action plan framework
- Outcomes will be based on real-time datasets generated
- Strengthening Europe's Strategic Autonomy in the industry
- End of Project | Dec'2025



More info at <https://underpinproject.eu/>
Contact me at: Panagiotis Georgiou pageorgiou@moh.gr

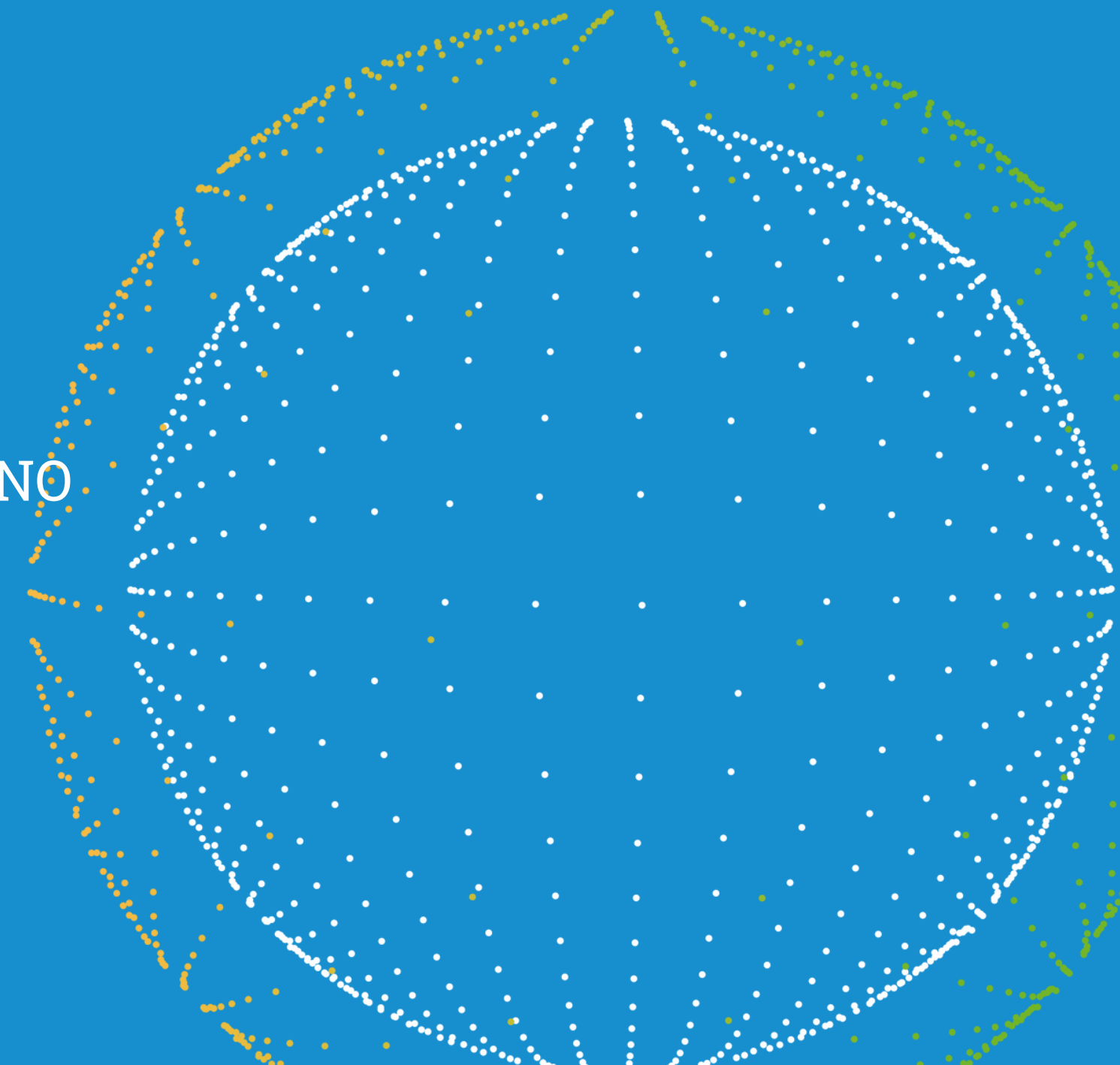


Data Spaces Symposium

Pitch

3 minutes

Circular TwAIn by Sergio Gusmeroli, POLITECNICO DI MILANO



Pitch

Circular TwAIIn

What is the aim of the project?
What are the planned project outcomes?

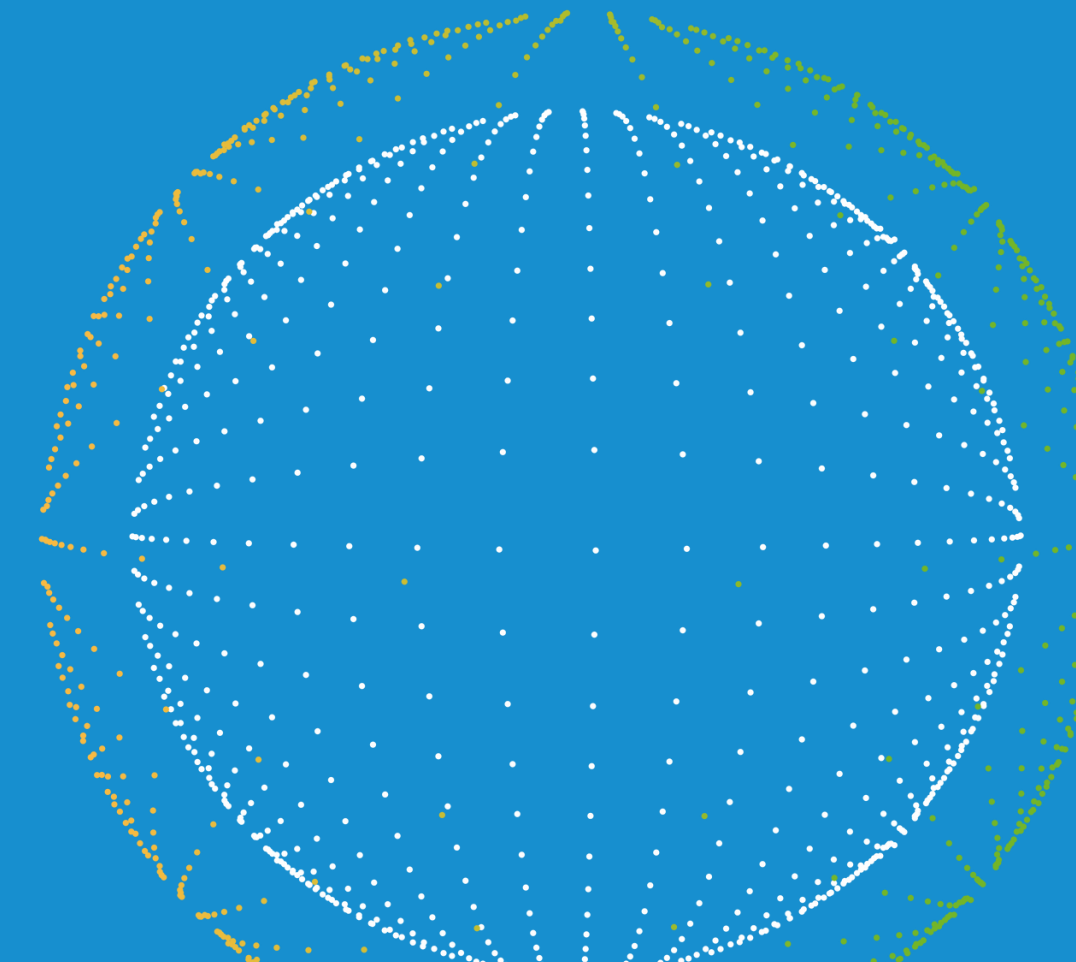
- **AI enabled** Product Process Human **Digital Twins** for Circular Manufacturing networks
- A Foundational Framework (**CIRC-X**) and a Reference Architecture for **Circular Manufacturing Data Spaces**, in connection with Digital Product Passports

What is the value for the development of data spaces within this domain?

- High Quality **Data Sources**, also coming from Synthetic Data Generators to properly feed AI enabled Product Process Human (collaborative intelligence) **D Twins**
- Not duplicating Data Spaces and Data Infrastructures to implement **DPPs**, but extend and enrich embryonic existing B2B Data Spaces for **B2G and B2C challenges**

What benefits for the industry?
When will the results be available?

- On the one side to extend **linear Manufacturing Supply Chains** to **Circular Value Networks** (new stakeholders reconditioning, reusing, remanufacturing, recycling)
- Get Manufacturing Industry **ready to DPP** revolution
- First Results already available (M18 Mid Term Review).
Final Results **in Q1 Q2 2025**



Data Spaces Symposium

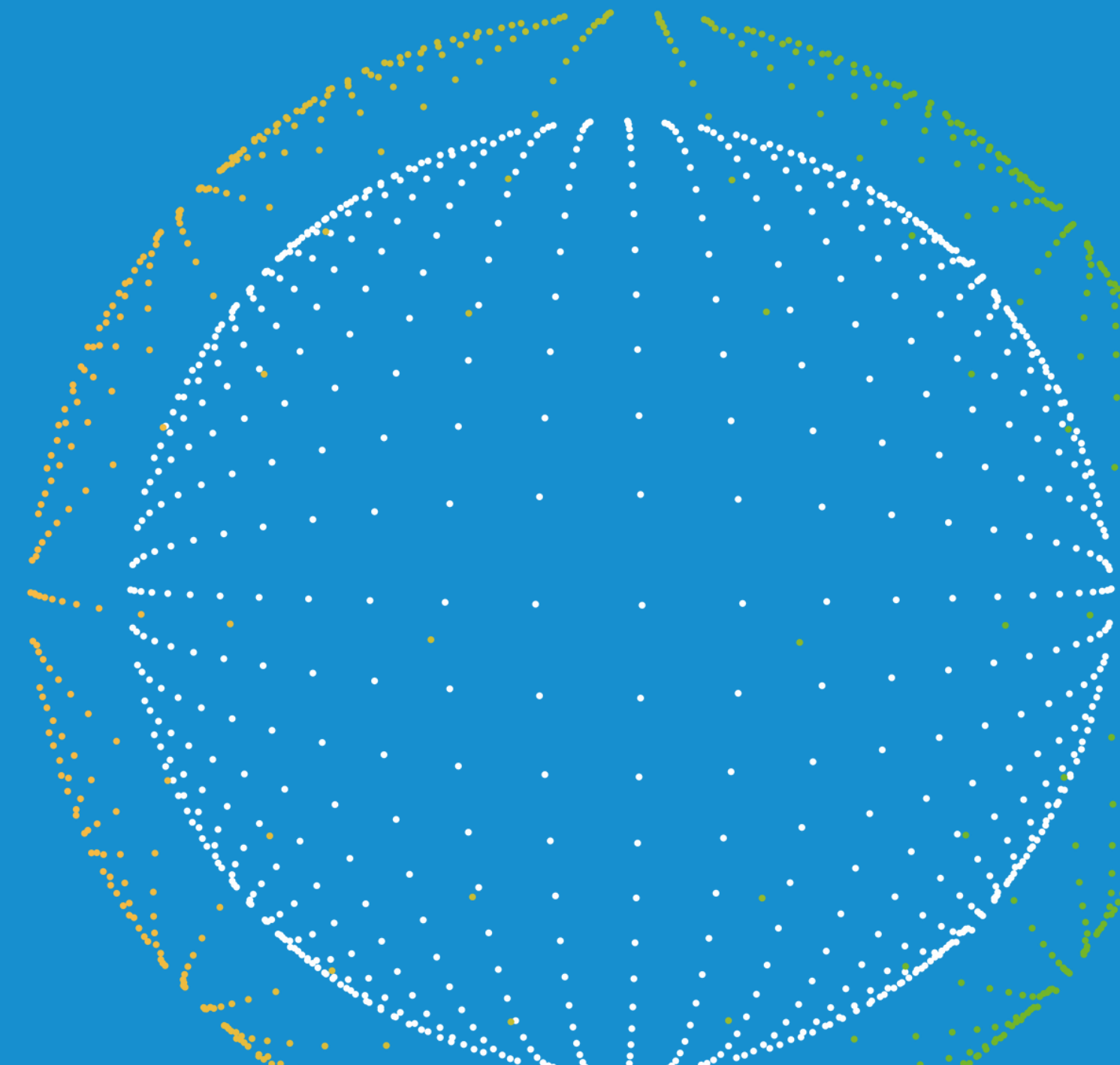
Pitch

3 minutes

TANGO by Dries Verhees, FLANDERS MAKE



FLANDERS
MAKE
DRIVING INNOVATION IN MANUFACTURING



Pitch

TANGO

What is the aim of the project?
What are the planned project outcomes?

- Development of trustworthy, accountable and privacy-preserving data-sharing technologies
- TANGO will act as gatekeeper to information and data flows

What is the value for the development of data spaces within this domain?

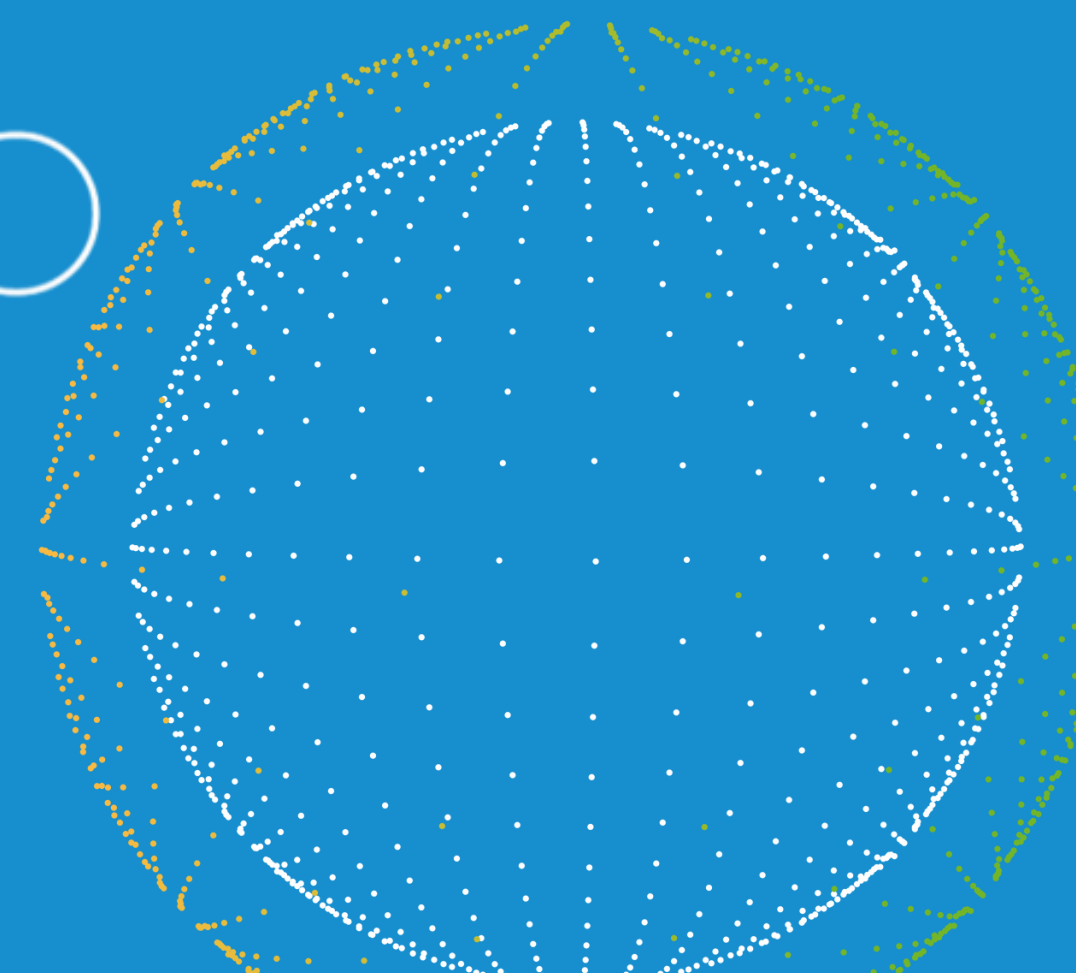
- Cross-sector data sharing in secure and trustworthy manner
- Reduced energy consumption at infrastructure and inference level.

What benefits for the industry?
When will the results be available?

- Improved and secured data management for industry.
- Enabling secure data sharing to multiple entities.
- Exploiting the power of AI to produce accurate decision making
- End of project: August 2025

T:ANGO

FLANDERS
MAKE

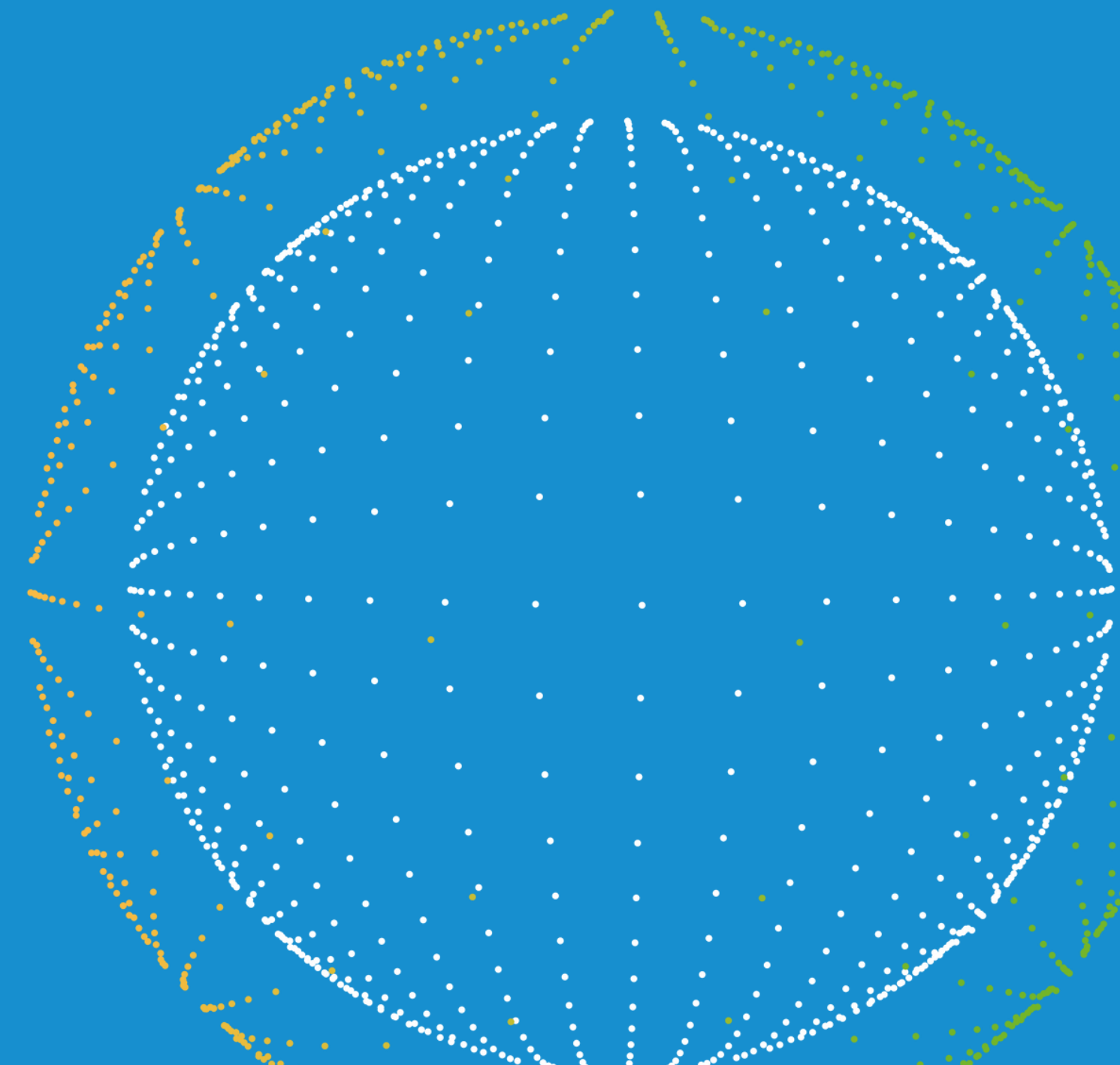


Data Spaces Symposium

Pitch

3 minutes

EuProGigant by Gerald Ristow, SOFTWARE AG



Pitch

EuProGigant

What is the aim of the project?
What are the planned project outcomes?

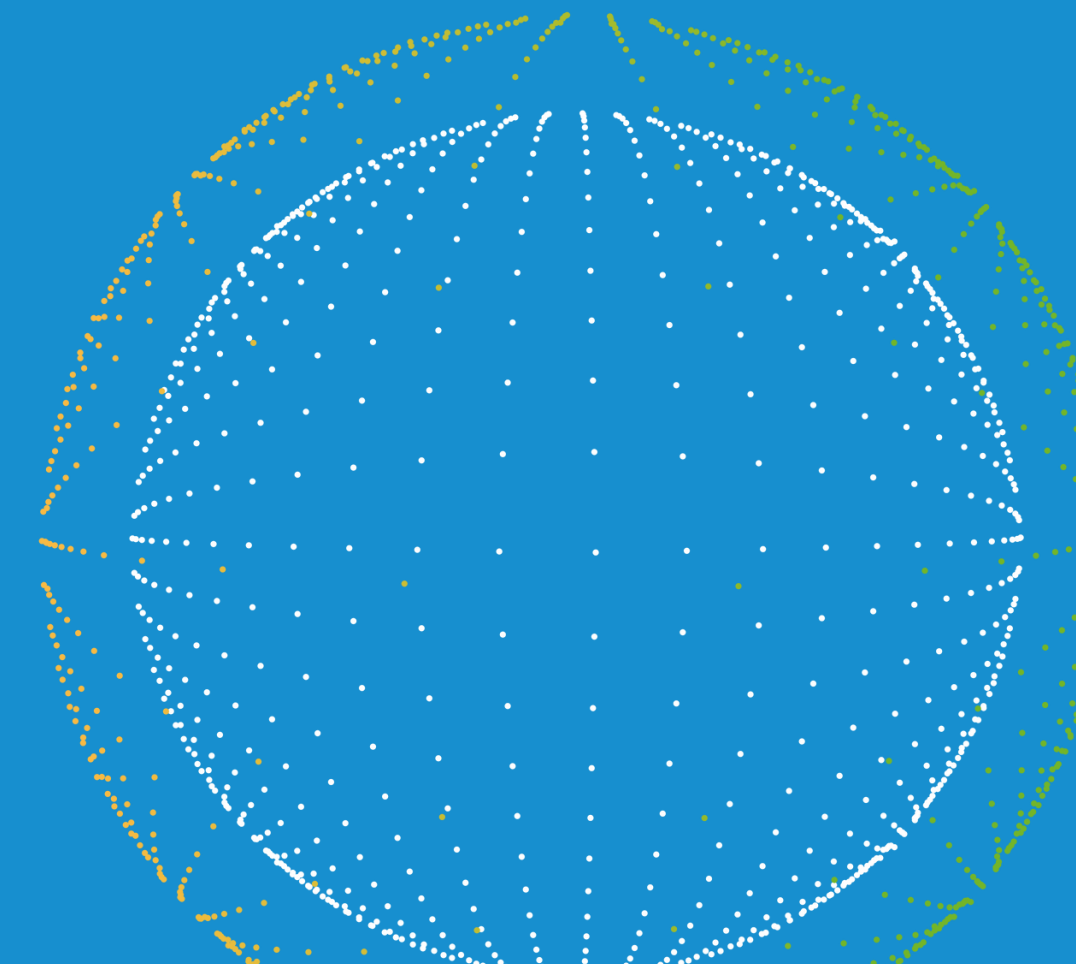
- Build a data space for the manufacturing industry
- Self-sovereign exchange of data and algorithms
- Develop concepts for a resilient production environment

What is the value for the development of data spaces within this domain?

- Demonstrate a Gaia-X compliant data exchange
- Develop a workable concept for the federator
- Establish a connection to other data spaces

What benefits for the industry?
When will the results be available?

- Having a blueprint for a working federator
- Show choice of underlying technologies, deltaDAOs blockchain or Eclipse XFSC/EDC combination
- MVG demonstrated already in April 2022!



More info at euprogigant.com

Contact me at: Gerald.Ristow@softwareag.com

Data Spaces Symposium

**Panel discussion: Data spaces and the Digital
Product Passport - a perfect fit**

16:00 – 16:40

Reinhard Heister, VDMA

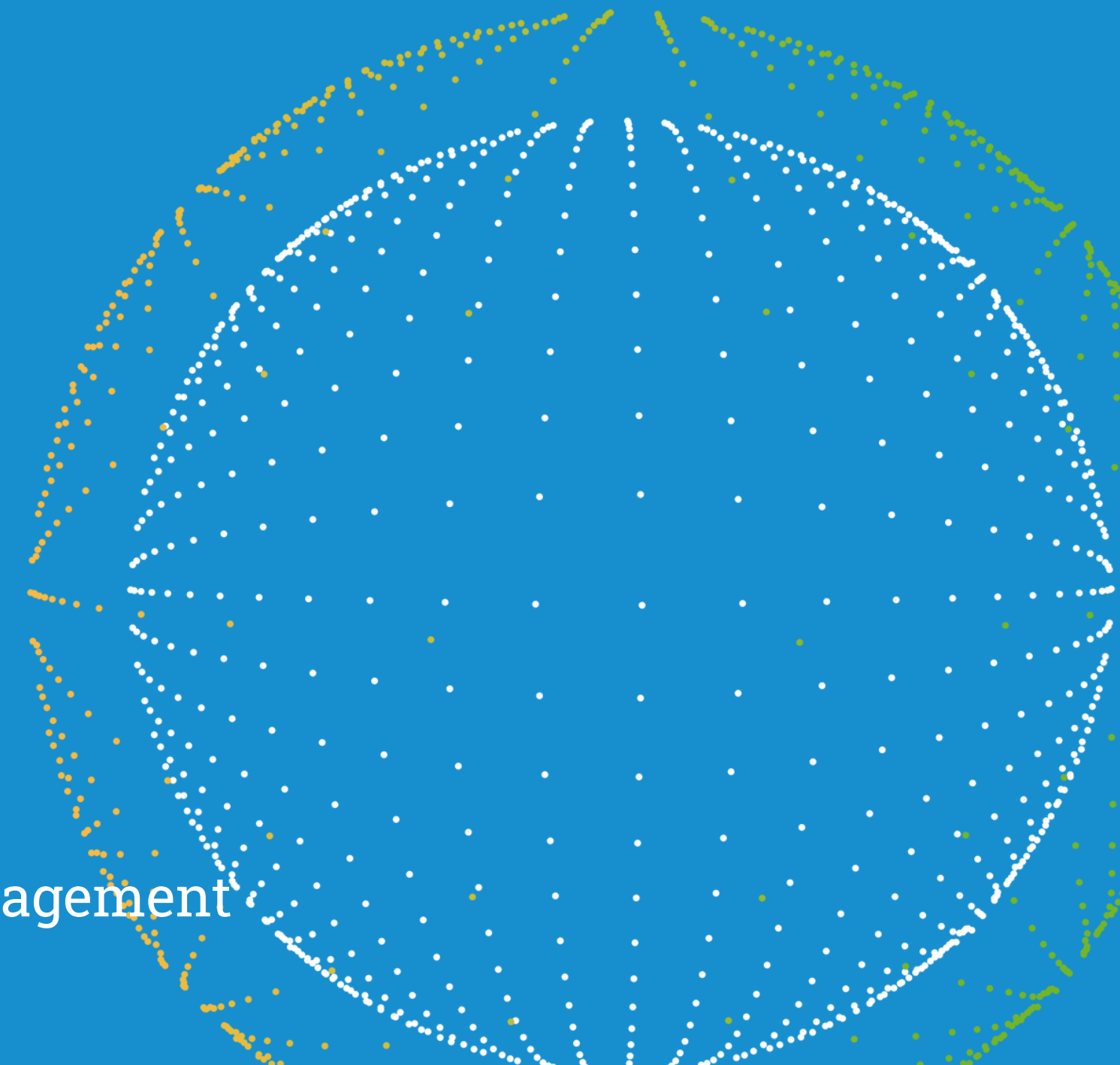
Ljiljana Stojanovic, FRAUNHOFER IOSB

Davide Dalle Carbonare, ENGINEERING, DATA SPACE 4.0

Sicco Lehmann-Brauns, SIEMENS

Riccardo Giovannotti, GDSO

Jon Kuiper, Dutch Ministry of Infrastructure and Water Management

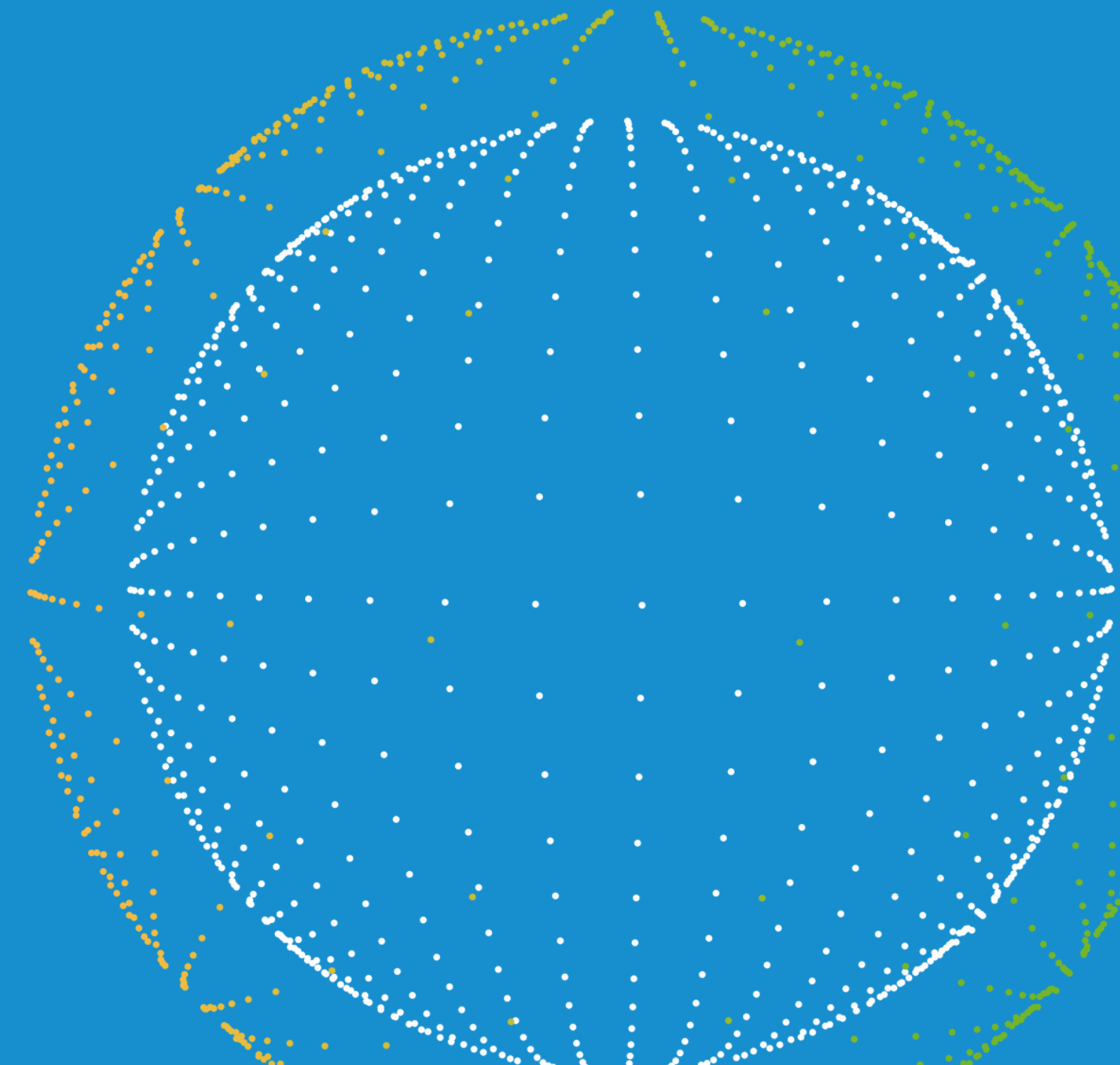


Data Spaces Symposium

Panel discussion

16:00 – 16:40

Reinhard Heister, VDMA

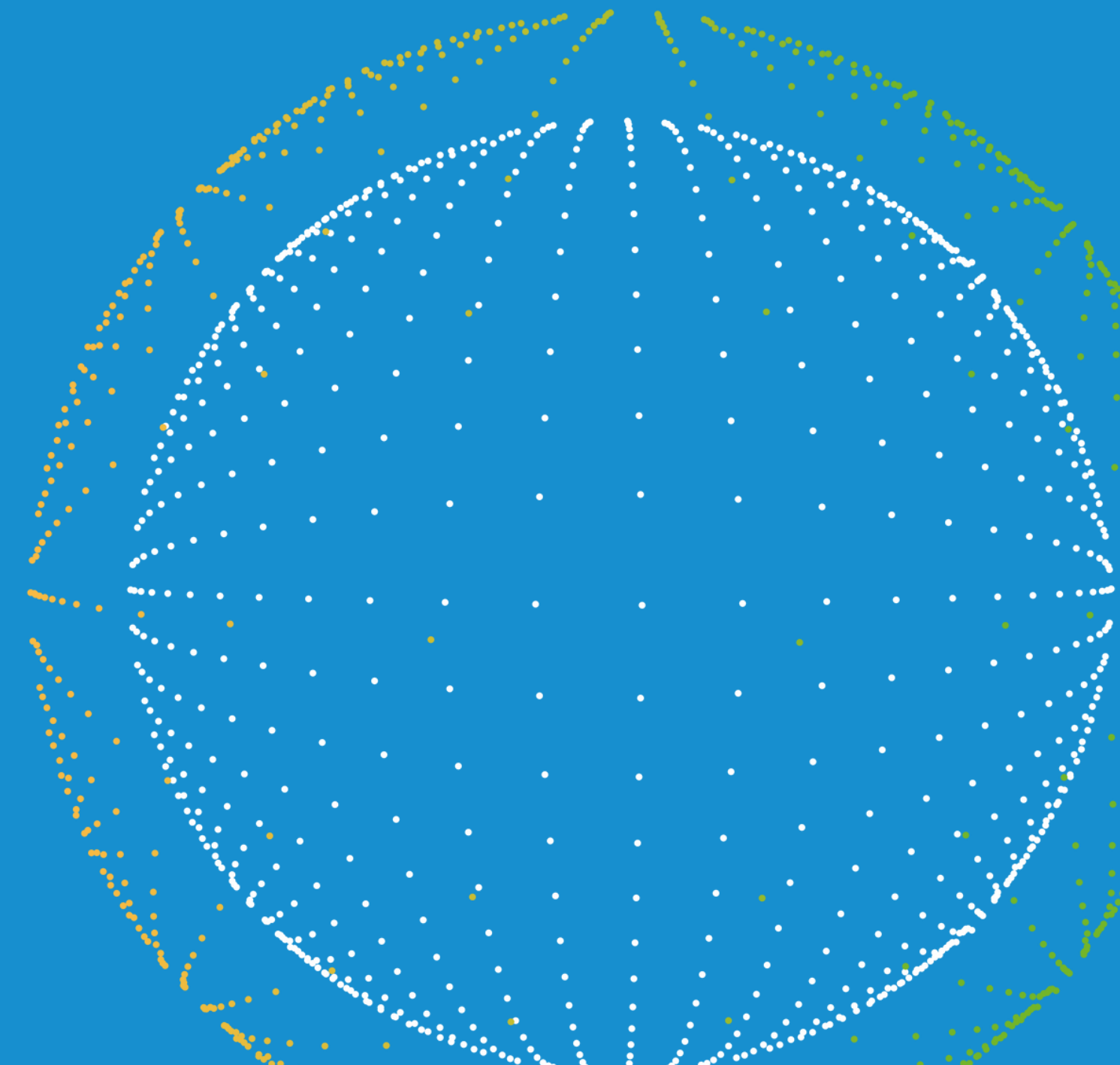


Data Spaces Symposium

Panel discussion

16:00 – 16:40

Ljiljana Stojanovic, FRAUNHOFER IOSB

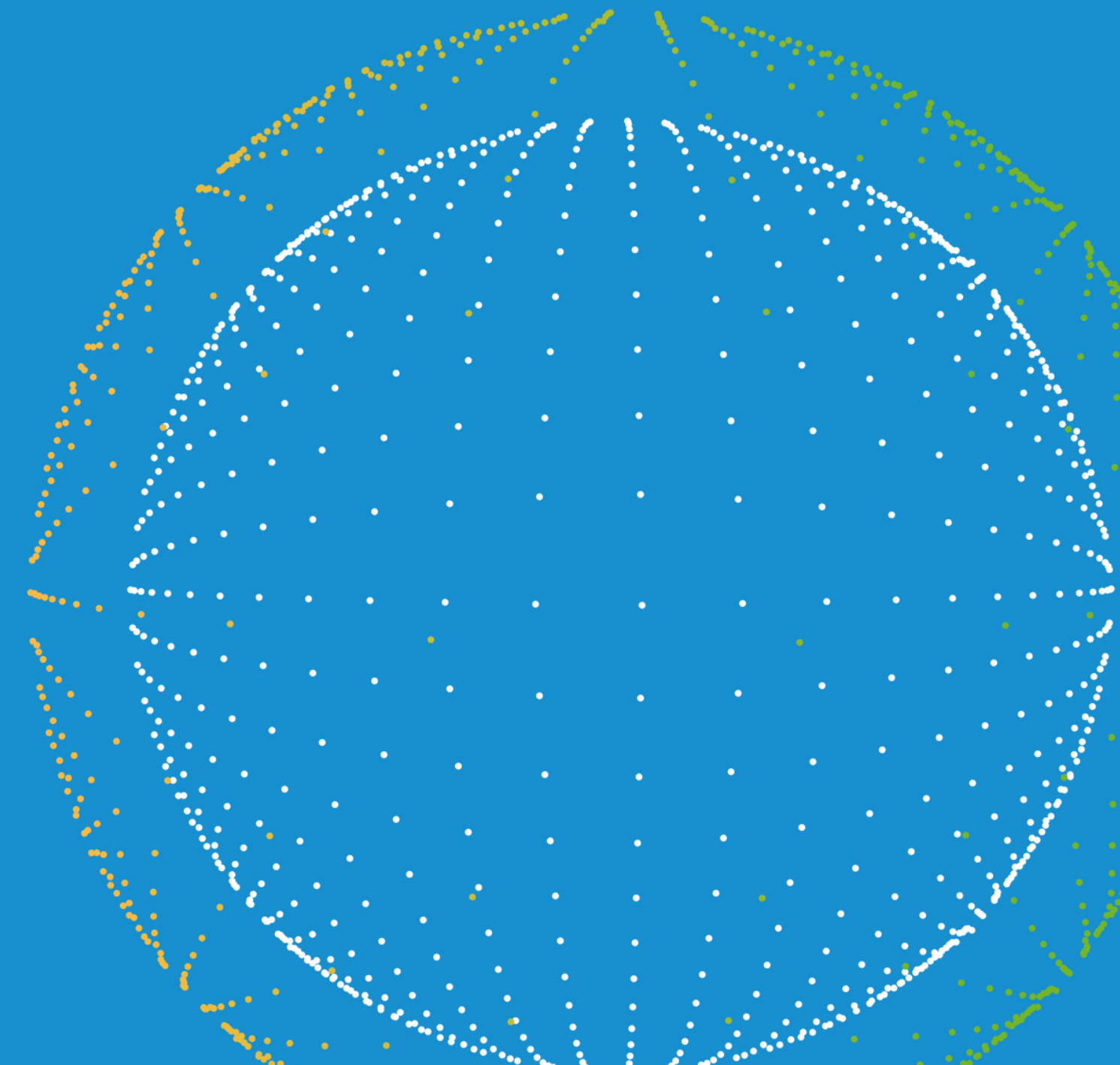


Data Spaces Symposium

Panel discussion

16:00 – 16:40

Davide Dalle Carbonare, ENGINEERING, DATA SPACE 4.0



Data Spaces Symposium

Panel discussion

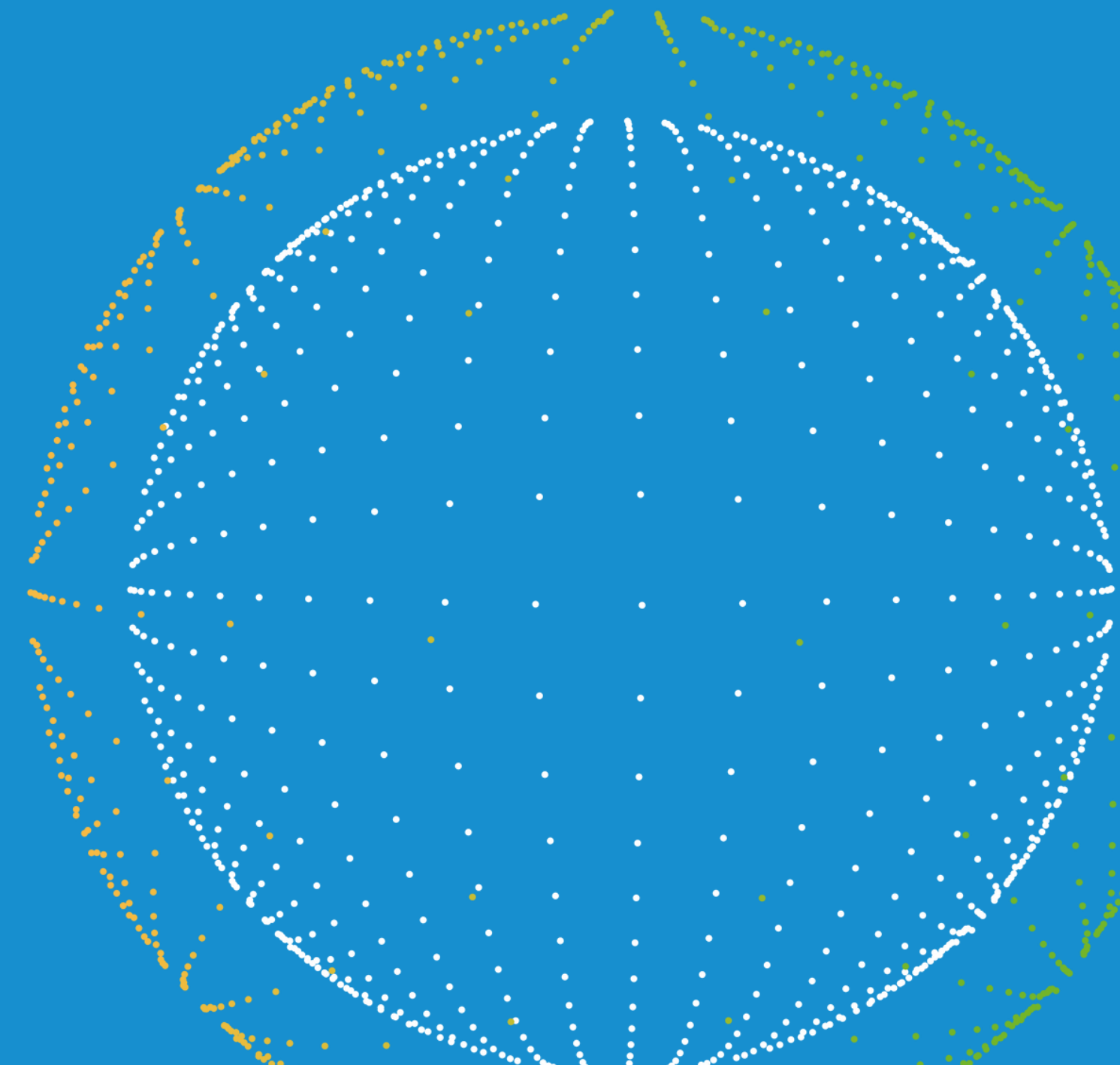
16:00 – 16:40

Sicco Lehmann-Brauns, SIEMENS



SIEMENS

Dr. Sicco Lehmann-Brauns
Senior Director Innovation Policy



Data Spaces Symposium

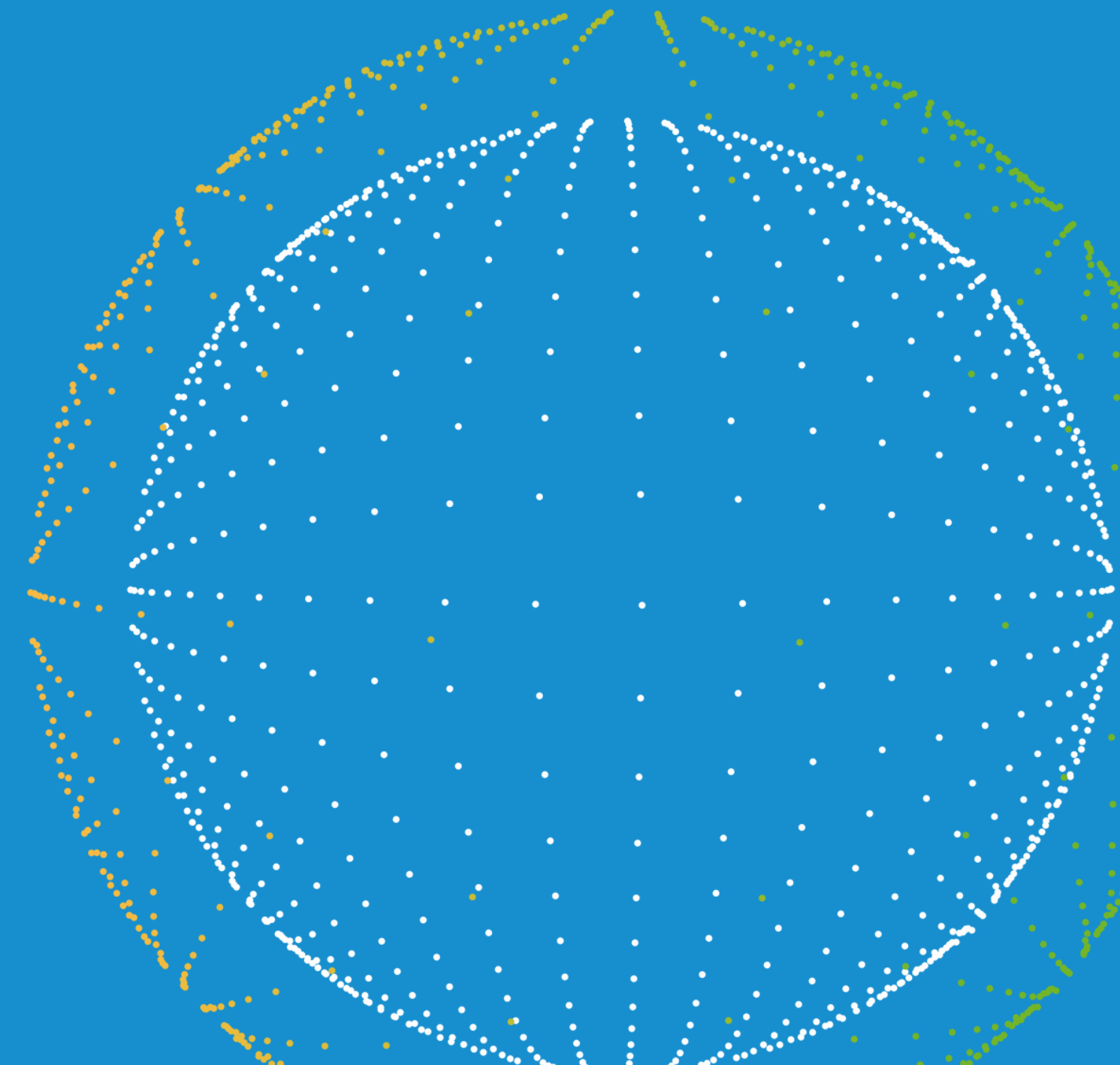
Panel discussion

16:00 – 16:40

Riccardo Giovannotti, GDSO



GDSO
STANDARDIZE. SHARE. SIMPLIFY.

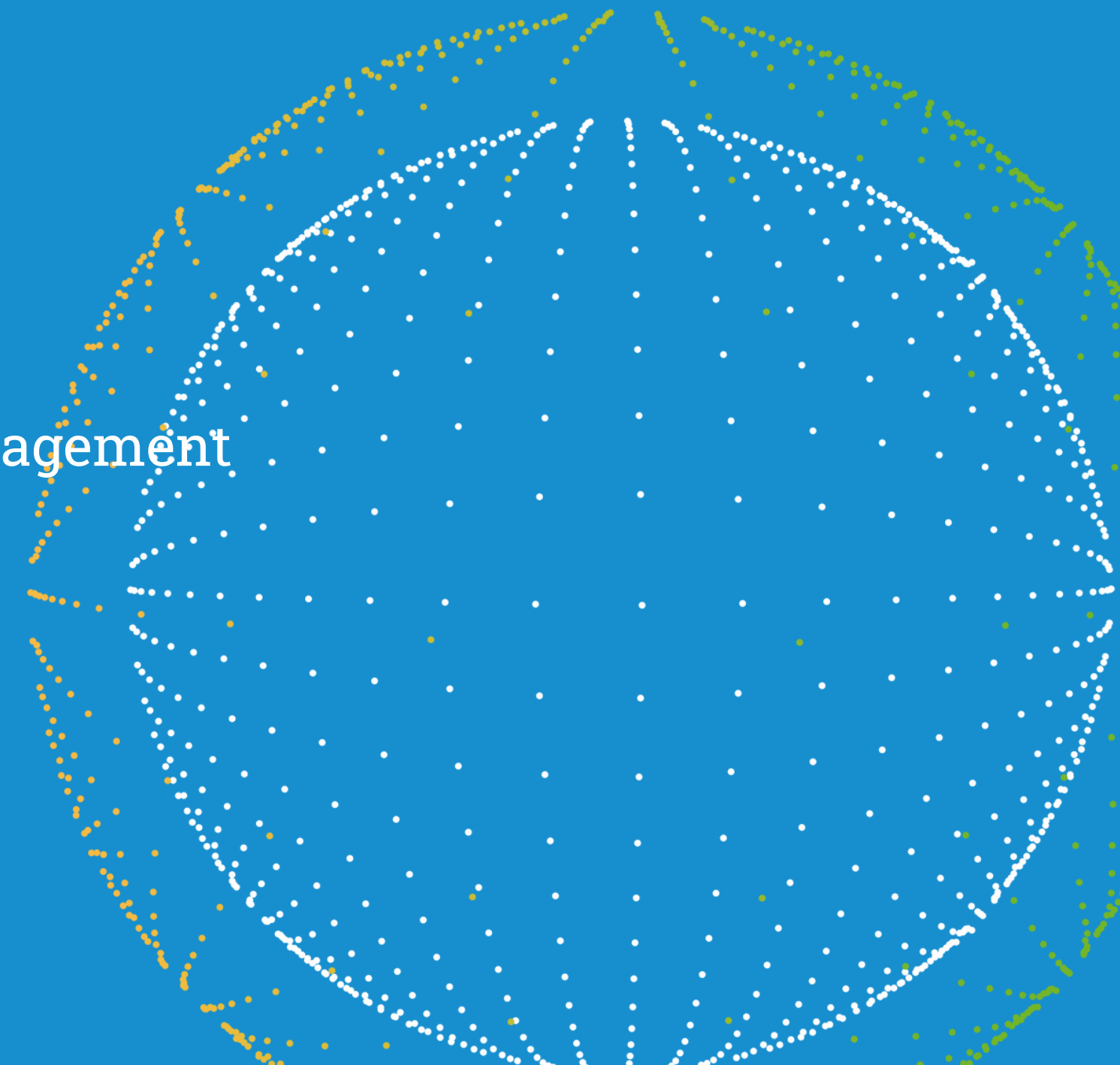


Data Spaces Symposium

Panel discussion

16:00 – 16:40

Jon Kuiper, Dutch Ministry of Infrastructure and Water Management



Data Spaces Symposium

**Vertical session: Manufacturing,
supply chains and logistics**

March 13, 15:30 - 16:40

Moderator: Giulia Giussani

Senior Digital Innovation Manager at IDSA

& DSSC Relationship Manager for manufacturing

