Data Spaces Symposium

9:00

Data spaces making logistics more efficient, supply chains more resilient

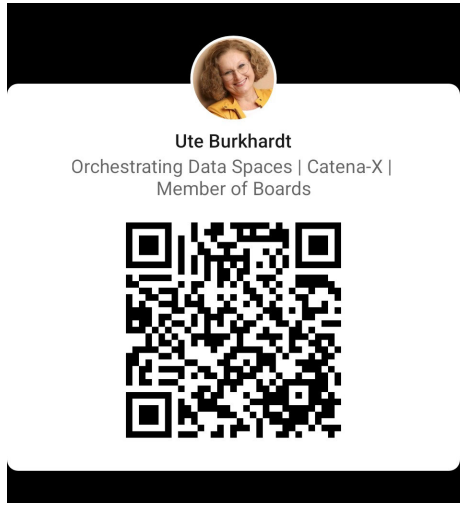
Domain session [automotive | logistics | supply chains]

Data Spaces Symposium

Data spaces making logistics more efficient, supply chains more resilient

Ute Burkhardt

Introduction of the speaker



Ute Burkhardt

Fraunhofer Institute for Software and Systems Engineering ISST

IDSA Executive Board Member

iSHARE Supervisory Board Member

https://www.linkedin.com/in/ute-burkhardt/

Data Spaces Symposium

Onboarding of an automotive supplier to Catena-X

Sebastian Kleff & Arunav Mishra

SOVITY

Our Founders

Dr. Sebastian Opriel & Sebastian Kleff

Empowering effortless and trustworthy connectivity

Experience with Data Spaces since 2016

Involved in numerous Data Spaces

Catena-X Automotive Network · SM4RTENANCE · MESEO · gaia-x · UNDERPIN · omega-x · MX Manufacturing-X · International Data Spaces Association

Best Tech Stack Eclipse Data Space Components & Tractus-X and open-source

Values & Benefits

- Expert support
- Seamless integration
- Data Sovereignty
- Scalable solution
- Plug & Play
- Decentralized
- Interoperable
- Fast business case

Trusted by customers

BURY · DEKRA · DLR · HELBAKO ELECTRONICA · KEBODA · EVE · InnoSenT · LG · tecnalia · SICK Sensor Intelligence · NTT Communications · MOTOR OIL · Valeo · DWD

Only a selection

Connector as a Service

Easiest onboarding and participation

Data Space as a Service

Fastest setup of entire Data Space

Data Space Consulting

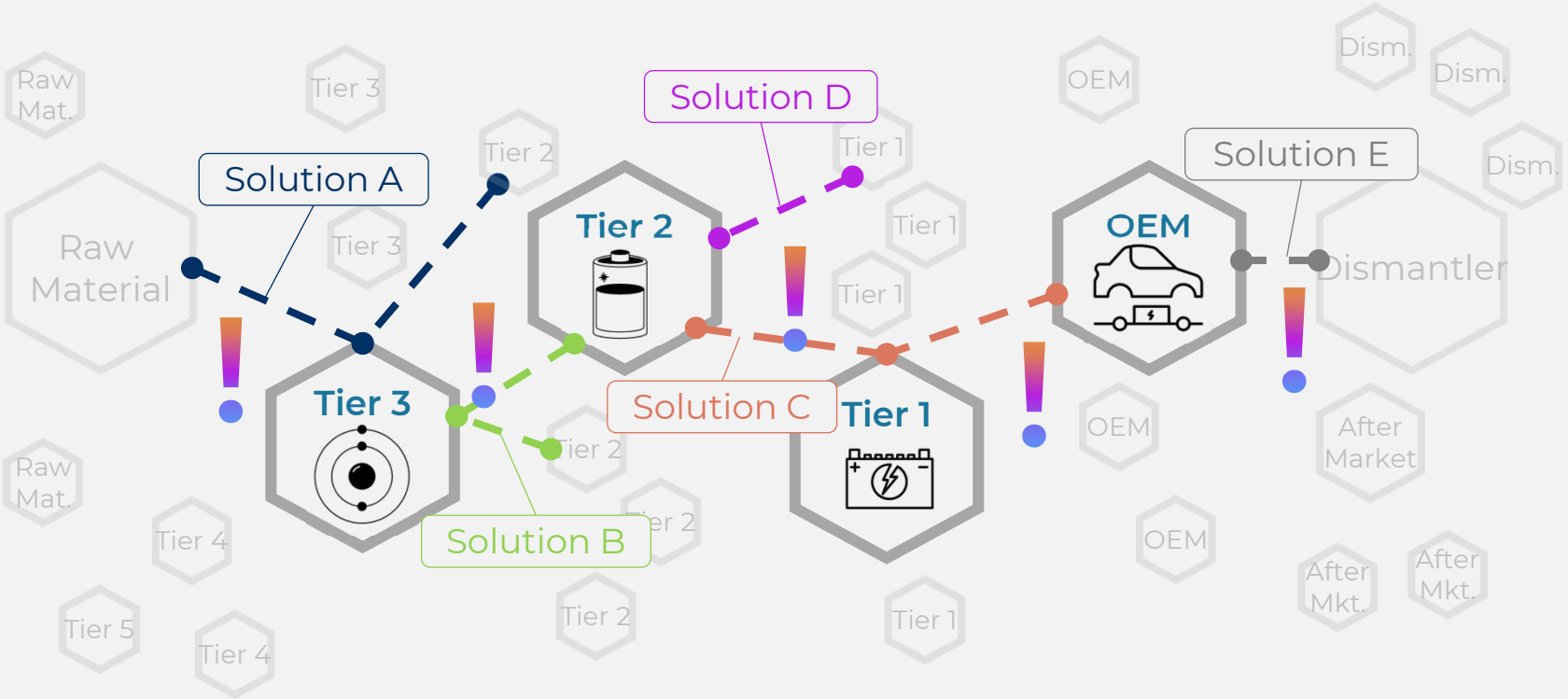
Individual guidance on use case **architecture**

Follow Us

CHALLENGE

End-to-end data exchange for battery data mandatory

Regulations | market pressure | required process improvements



"

BASF
We create chemistry

Traceability of battery parts incl. product passport is fundamental!

sovity

DATA SPACES

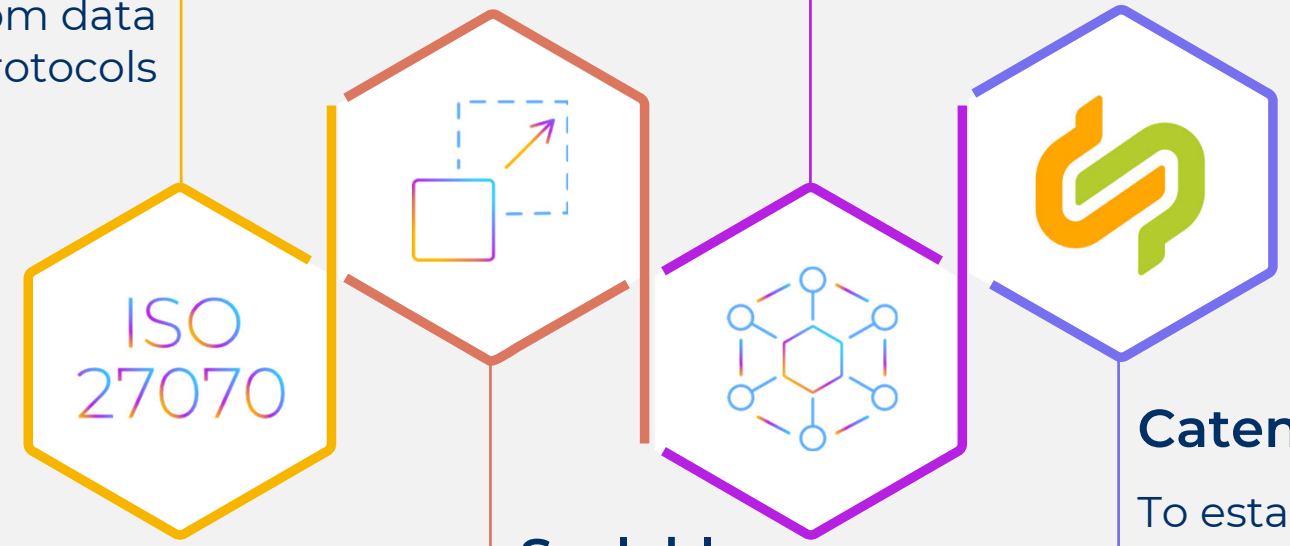
Exchange data based on standards

Standardized

common basis for data ecosystems by standards from data formats over protocols

Decentralized

Peer-to-peer network to keep data stored on data owner's side



Scalable

Based on open-source software to connect various sources, apps & partners

Catena-X

To establish end-to-end connectivity for all Automotive use cases

sovity

REQUIREMENTS

Data Spaces as one new key requirement for BASF

Software

Mandatory to use relevant software components

Open-source

Fast moving developments and community

Skill

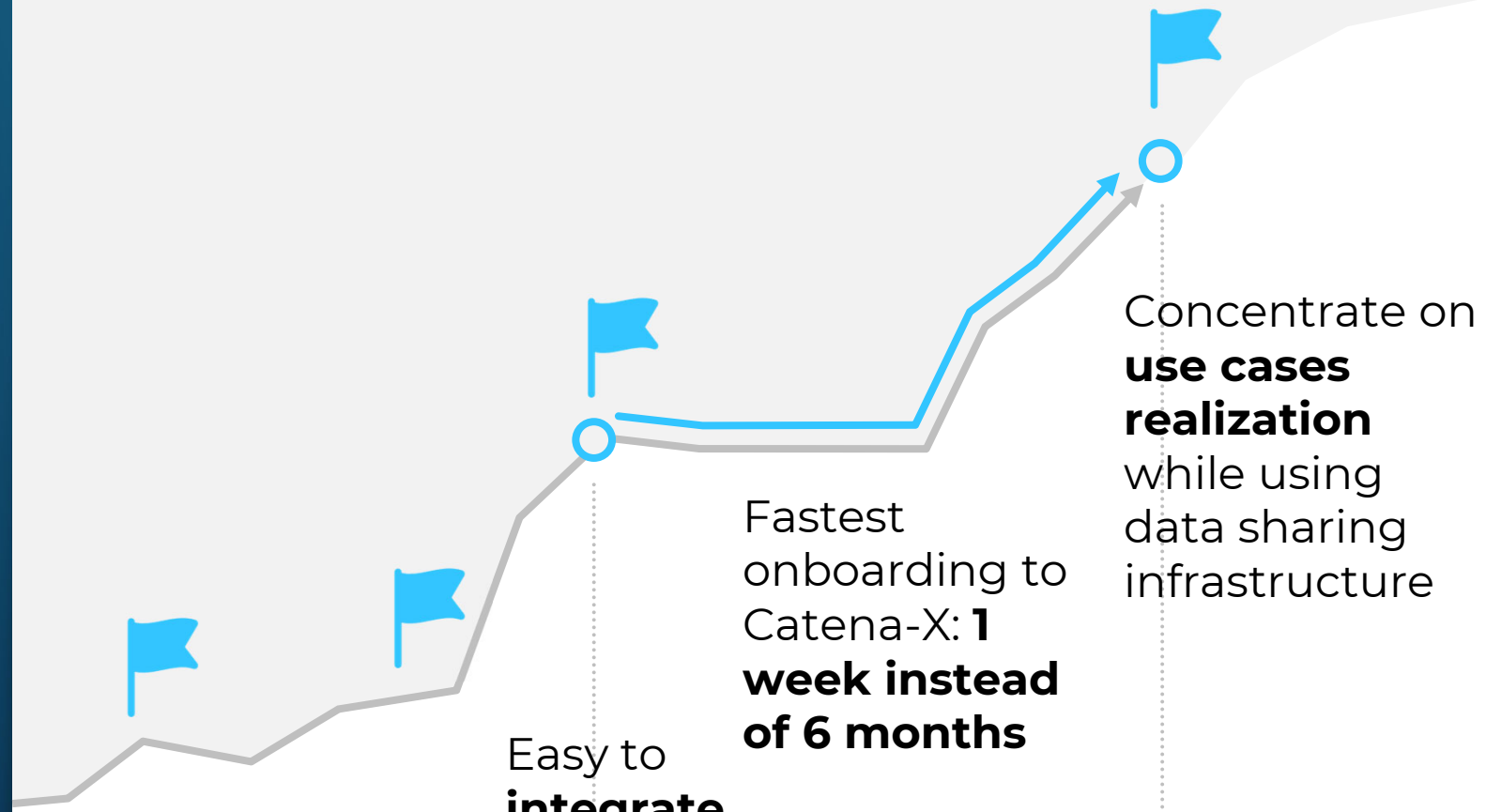
New skills and knowledge in tech and cloud required

Value creation

Complementing BASF infrastructure and business

SUCCESS

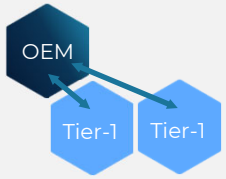
Data Space enablement for fastest value creation



VALUE CREATION

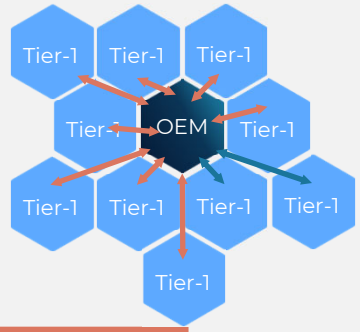
Generate Flywheel of thousands participants with unlimited use cases

This is made possible with a new product CONXIFY



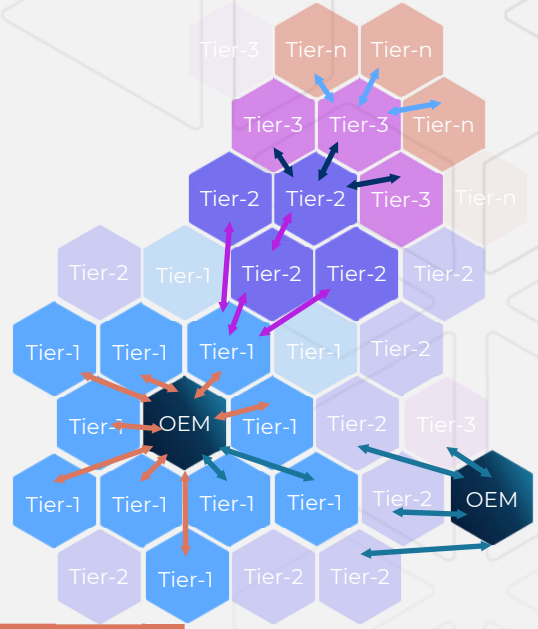
Summer 2024

Realize first business case in PoC



Q4-2024+

Horizontal scaling for first use case



2025+

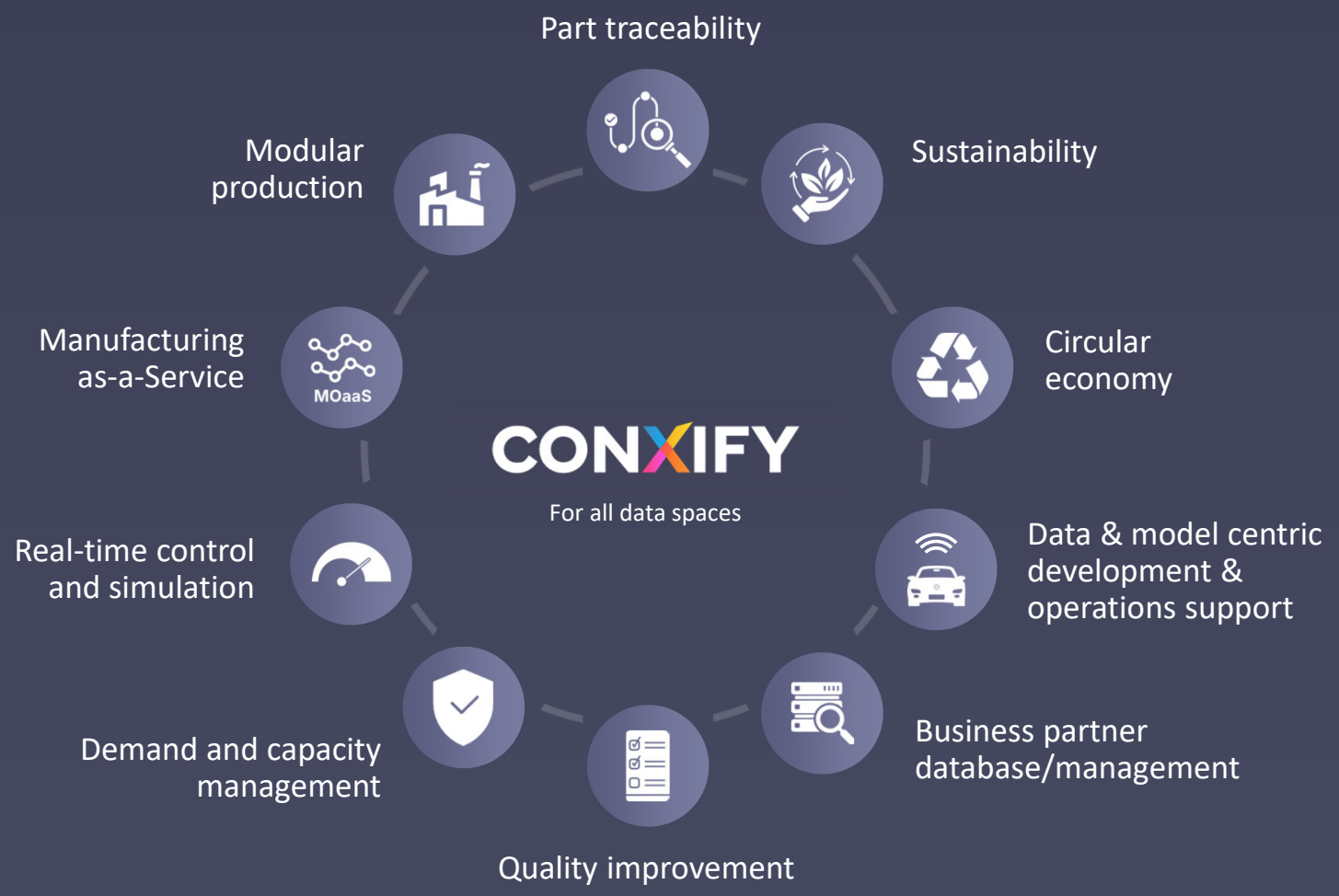
Vertical scaling along entire network with multiple use cases

Seamless application connection across the value chain

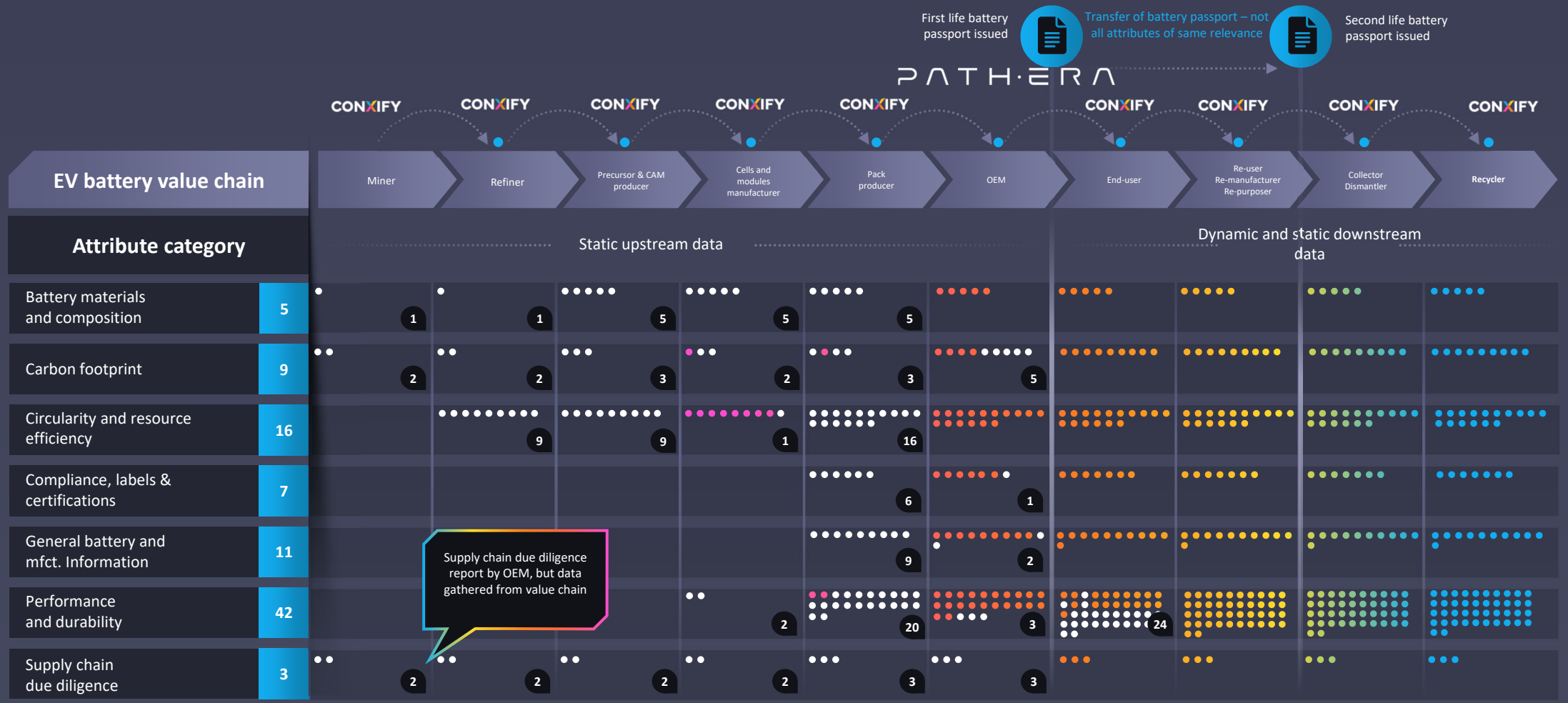
Solution offering – Gateway to ecosystems with a snowball effect

CONXIFY

1. Data collection
2. Data validation
3. Application connection
4. Multiple Catena-X data models
5. Catena-X



Every EV battery value chain player will be required to provide data attributes to battery passports



Total sum of attributes: 93

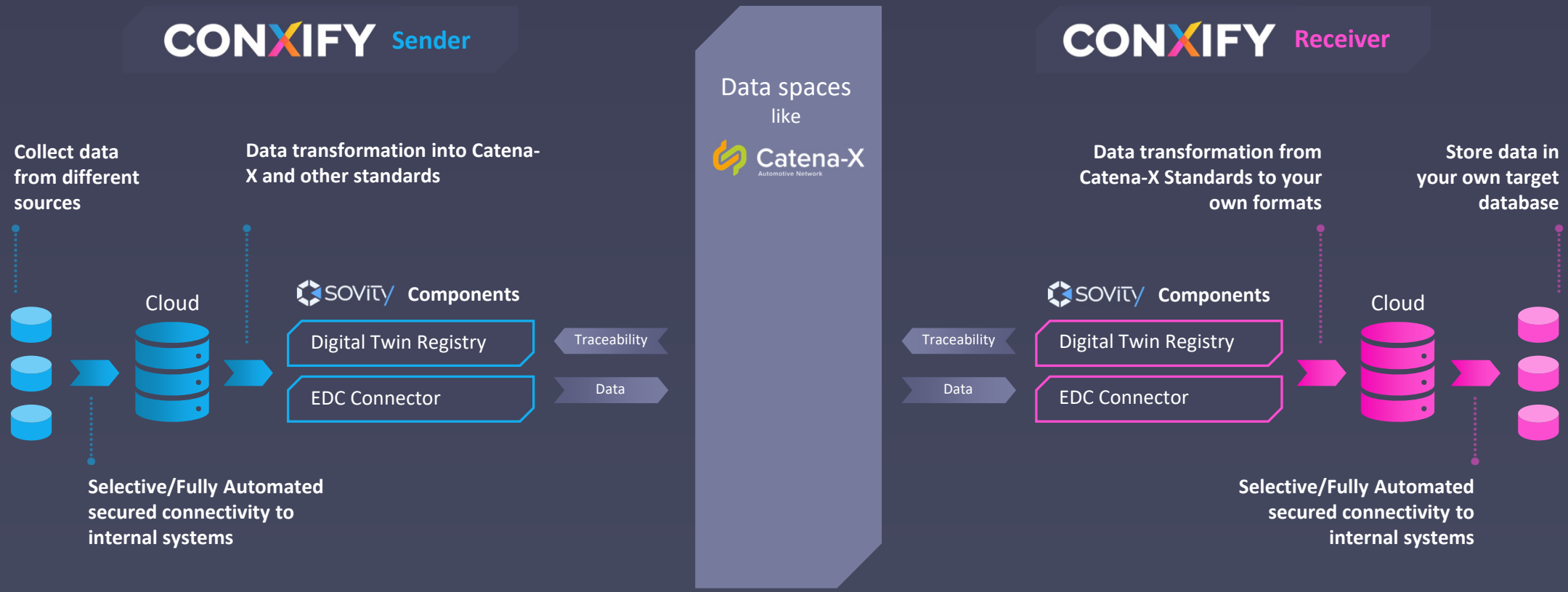
Number of attributes added/updated per value chain step

CAM: Cathode Active Materials **OEM:** Original Equipment Manufacturer **EV:** Electrical Vehicle

Data added Data added/updated in previous steps

DATA SPACE SOLUTIONS

ConXify: Out-of-the-Box Decentralized Components with Catena-X Services for Instant Start-up!



DATA SPACE SOLUTIONS

DATA SPACE SOLUTIONS

A subsidiary of BASF SE

15 years of IT experience and own IP in Data Space Connectivity

Located in Mannheim, Germany

Services beyond connecting Data Spaces, comprehensive supply chain connectivity

International/Global R&D Team

Offering tailormade solutions

“enhancing digital capabilities with seamless connectivity”

Let us scale Data Spaces, together!

Sebastian Kleff

CEO & Co-Founder

Sebastian.Kleff@sovity.de

www.sovity.de github.com/sovity

Arunav Mishra

CEO & MD

Arunav.Mishra@dataspacesolutions.com

www.conxify.de, www.dataspacesolutions.com

Data Spaces Symposium

Increasing productivity in automotive supply chains

Sven Löffler

Data Spaces Symposium

Sven Löffler

Let‘s stay in contact!

LinkedIn WeChat Line

Key responsibilities

- T Systems — Director, Dataspaces & Data Products
- International Data Spaces Association — IDSA Ambassador
- Eclipse Foundation — Steering Committee member at Eclipse Dataspace Working Group (EDWG)
- Bundesministerium für Wirtschaft und Klimaschutz — Steering Council member, Manufacturing (M-X)
- gaia-x — Steering member Gaia-X Federated Services for Clearing House Providers
- Catena-X Your Automotive Network — Project lead T-Systems & Business Owner (C-X Consortia phase 1 for IAM, portal, dataspace components)

Expertise fields

+25 years of experience in the field of Data, AI, Dataspaces & Data Products

Worked previously for Cognos, IBM & Deutsche Telekom

T IBM COGNOS

T Systems

TRUST
PARTICIPATE

CONNECT
INTEGRATE

BUILD
OPERATE

Telekom Data Intelligence Hub

dih.telekom.com

Catena-X
Certified Solution

IDS_certified
Component

gaia-x

T Systems

Real use cases and benefits for digital ecosystems

"Plan and ensure material flow and availability across multiple value chain steps"

"Put targets into action by working with real PCF data to de-carbonize the value chain"

"Create interoperability standards and SME readiness for digitization of processes"

"Boost innovation and adoption by sharing network foundation & service built upon open source"

„close the loops for circularity

No market player, neither OEM nor supplier can solve these problems on their own

T Systems

Source: Catena-X

Success stories & references

"As a clearing house for Gaia-X and Catena-X, T-Systems is one of the first clearing houses available on the market, not only for Catena-X, but also for other partners. We found the right partner to give the right people in the dataspace to credit - who you are, are you rightfully or wrongfully in there - and to make sure that we are Gaia-X compliant."
....

Oliver Ganser, Chief Executive Officer "Catena-X Association and Industry Consortium"

"The integrity of dataspaces is built on verified company identities. T-Systems, Gaia-X compliant clearing house is a key pillar during the onboarding of new members into the Catena-X dataspace, and an important partner for us in building a trusted data ecosystem"
...

Thomas Rösch - Chief Executive Officer, Cofinity-X

"Market players like T-Systems are playing an important role in making dataspaces a reality, operating digital clearing houses according to the specification of Gaia-X. With this we are creating a global standard for dataspaces in different domains, starting with flagship domains like the automotive."
....

Ulrich Ahle, Chief Executive Officer - Gaia-X European Association for Data and Cloud AISBL

"In our view, we need market adopters, early movers, commercial companies that just ship the great technology, software components and services we need, and we have trailblazers like T-Systems with the data intelligence hub, which already showed us two years ago what the world of dataspaces could look like."

Lars Nagel, Chief Executive Officer, International Data Spaces Association

T Systems

Media kit dataspaces

⇨Link

T-Systems certified full-service provider for Catena-X

Onboarding Consulting

Expert Consulting for Catena-X Onboarding, Workshops Tailored for All Company Sizes

Catena-X Qualified Advisor

Registration with Catena-X/Cofinity-X

Registration in less than 72 hours to obtain a Business Partner Number. Single Sign-On access across multiple Dataspaces

Catena-X Certified Provider

Integration with Catena-X

Seamless data exchange across the entire automotive network with a multi-certified Connect & Integrate solution. One connector for all use cases. In the cloud of your choice

Catena-X Certified Provider

Catena-X Sandbox Provider

Certified Catena-X Sandbox Environment for secure testing and app development

Catena-X Certified Provider

Official DOS NOVA Reseller

Support for customers in using and integrating the Dataspace OS Nova solution

Partnership with Cofinity-X

T Systems

Catena-X onboarding support by T-Systems

Consulting:

- **Consulting** across the entire **Catena-X Portfolio**
- **Support** throughout the onboarding process, from benefit analysis and registration with Cofinity-X to the first productive integration and beyond
- Assistance in **Selecting Use Cases** and **Performing the Necessary Steps** for **Timely Onboarding**
- Selection of the right **Connector Solution**
- Explanation **of Security Measures** and protocols implemented to protect data within the **Catena-X Ecosystem** and additionally in **our Solutions**

Integration:

- Our dedicated expert team will guide you through the **Registration Process** and provide **Comprehensive Support before, during**, and **after** the go-live phase.
- Support in obtaining the **Cofinity-X Business Partner Number**
- **Setting up your Catena-X integration for** seamless data transfer with a unified connector solution

Operationalization & Scaling:

- We continuously maintain and develop your solution
- We assist you in **Scaling** effortlessly to other **Use Cases** with the **Connector Solution**
- Global 24/7 **Support**

Step-by-step support by an onboarding expert team for a successful Catena-X integration

T Systems

Flex | Product Carbon Footprint (PCF) in Catena-X

Building on our more than 50-year history with a clear purpose, mission, and vision, Flex is the advanced end-to-end manufacturing partner of choice, helping market-leading brands across a diverse set of industries design, build, deliver, and manage products that improve the world.

Through the collective strength of a global workforce across 30 countries, and responsible, sustainable operations, Flex supports their customers' entire product lifecycles with leading design and engineering, supply chain, manufacturing, post-production and post-sale capabilities in every major region.

Challenges

- Participate in an automotive OEM-led data chain to track primary CO2 emissions for accurate Product Carbon Footprint (PCF) tracking
- Ensure full compliance with Catena-X technology and standards for seamless interoperability
- Enable potential reuse of the solution in other use cases, such as the battery passport.

Solution

- Consulting services for knowledge transfer and solution design
- Implementation of Catena-X-certified "Connect & Integrate" for dataspace connectivity
- Deployment of Catena-X-certified PCF Exchange App for seamless interoperability in PCF data chains
- Migration to the first Catena-X operating environment provided by Cofinity-X

Benefits

- Achieved quick results without the need for complex systems integration
- Delivered on time and within budget, with a live demonstration at the 2024 IMDS-AIAG conference
- Built a scalable foundation for adding more PCF components and expanding to new use cases like the battery passport.

T Systems

T-Systems: Verified and certified by external auditors

- Product quality and data security are a matter of trust, which is why T-Systems places the highest value on certified data protection and data security.
- Our automotive locations and cloud data centers are ISO and TISAX certified.
- Depending on the composition of the project teams, employees hold the necessary certifications, such as Scrum Master, AWS, Azure, etc.

We are the number 1 among the certified, trusted partners in the automotive, cloud, and dataspace industries.

• Catena-X & IDS

Catena-X

https://internationaldataspaces.org/candidates-for-ids-certification-award-named/

T-Systems won 5-star award for Catena-X contributions

• Compliant

One of the first **IDSA certification ready** & **GAIA-X compliant** managed services

• Connect & Integrate IDSA certification

• TISAX

Automotive Locations

Germany

- Darmstadt
- Dresden
- Frankfurt/Main
- Ingolstadt
- Köln
- Leinfelden-Echterdingen
- Magdeburg
- München
- Wolfsburg

International

- Cerdanyola del Valles/Spain
- Debrecen/Hungary
- Košice/Slovakia
- Moscow/Russian Federation
- Pécs/Hungary
- Pune/India
- Quinta do Anjo Palmela/Portugal
- Reus/Spain
- Saint – Petersburg/Russian Federation
- Sao Bernardo do Campo´/Brazil
- Szeged/Hungary
- Voronezh/Russian Federation

T Systems

Why T-Systems? Your one-stop shop for dataspaces

Catena-X Your Automotive Network · VDMA · umati · DaWID

NPM · RealLab Hamburg · VDW · Health-X

mobilithek · Gaia-X 4 Future Mobility project family

INTERNATIONAL DATA SPACES ASSOCIATION · MX MANUFACTURING-X · gaia-x

LRP Autorecycling · Mobility Data Space · flex

GRIS Group · KNORR-BREMSE

BOSCH · muRata INNOVATOR IN ELECTRONICS

ADIS TACHOU Quality with integrity

TÜV SÜD

WE SUPPORT YOU THROUGH YOUR WHOLE DATASPACE JOURNEY!

COMPLETE | Full-Service Provider: Advisory, Onboarding, Enablement

CERTIFIED | T-Systems solutions being compliant to Catena-X standards

SCALABLE | Data chain setup for all company sizes: from few to mass-data

AGNOSTIC | Any Use Case. Any Cloud. Any Software Vendor

aws · Open Telekom Cloud · Google Cloud · Azure

SECURE | Trust Anchor & sovereign clouds

EFFICIENT | Low effort with automated processes. User-friendly UIs

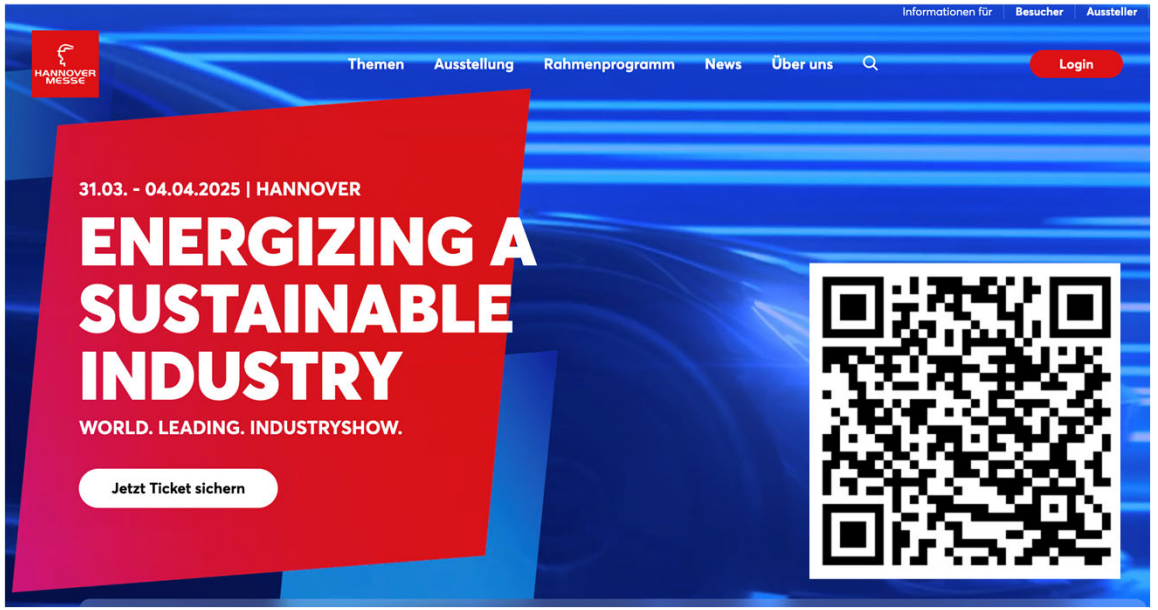
ENGAGED | Contributing to several technical committees & expert groups

T Systems

Join us at Hannover Messe 2025

Sven Löffler

Lead, Dataspaces and
Data Products
sven.loeffler@t-systems.com



T-Systems activities:

- **5 booths:** VDMA-Umati, Catena-X, Factory-X, RoX, T-Systems metaverse applications …
- **11 talks:** featuring Ford, Flex, DeltaDao, NTT Communications, Cofinity-X, GDSO, Siemens, Gaia-X …
- **Topics:** Dataspaces across industries (Manufacturing, Automotive, Robotics…), AI readiness, Federated identities, supply chain transparency … and much more

Visit our website!

Contact us to schedule a meeting and get your free ticket!

T Systems

Data Spaces Symposium

How Cofinity-X leads the way of industry data exchange

Niklas Midolo

From Theory to Practice

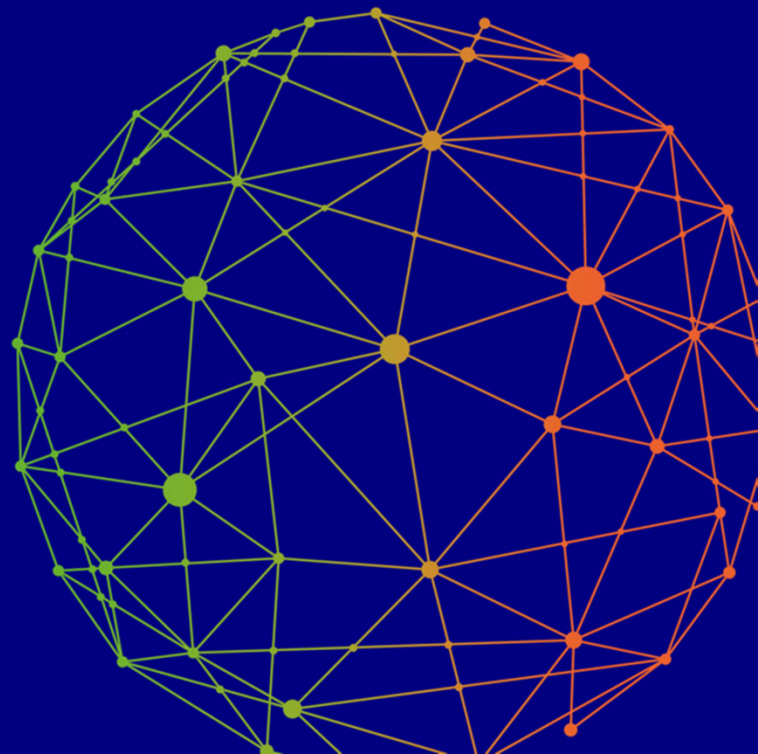
How Cofinity-X Leads the Way of Industry Data Exchange.

Data Spaces Symposium 2025

Niklas Midolo

Product & Strategy Manager

Cofinity-X



DSBA ■ BDV BIG DATA VALUE ASSOCIATION FIWARE FOUNDATION gaia-x INTERNATIONAL DATA SPACES ASSOCIATION

DATA SPACES SUPPORT CENTRE

Funded by the European Union

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

Cofinity-X

From Theory to Practice

How Cofinity-X Leads the Way of Industry Data Exchange.

Niklas Midolo

Data Spaces Symposium 2025

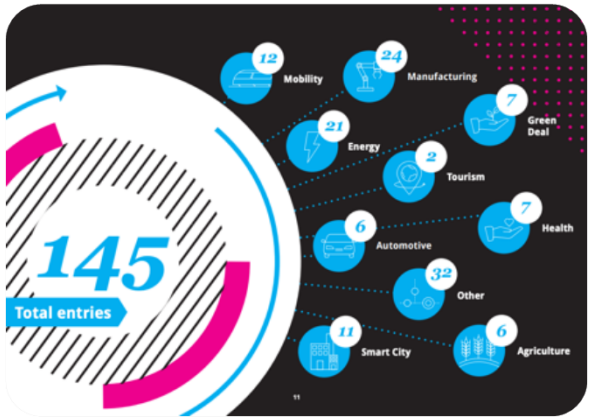
PUBLIC

Status Quo

of Dataspaces in 2025

145+ Dataspace Projects

(IDSA The Data Space Radar, March 2024)



Finanziert von der Europäischen Union
NextGenerationEU

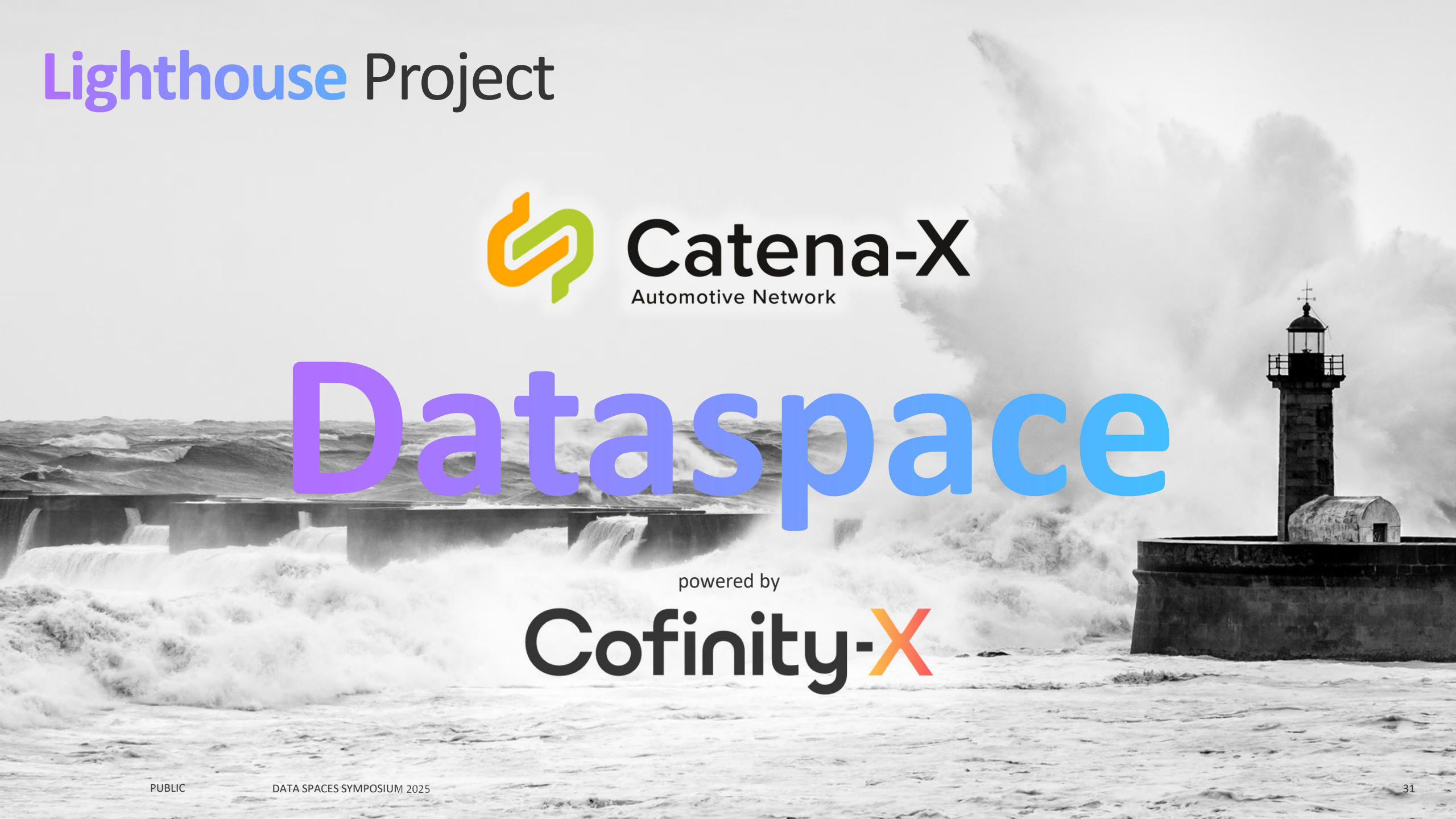
Gefördert durch:
Bundesministerium für Wirtschaft und Klimaschutz
aufgrund eines Beschlusses des Deutschen Bundestages

MANUFACTURING-X

~90% of this Dataspace-Projects are still in a **Research-Phase***

*all Projects below “Operational” Stage

Lighthouse Project



Lighthouse Project

Important Milestones

Catena-X Automotive Network

Dataspace

powered by

Cofinity-X

May 2021
Foundation of Catena-X Automotive Network e.V.

August 2021
Official foundation of the Catena-X Consortium

December 2022
Go-Live of Tractus-X Open-Source Community

Oktober 2023
Go-Live of Catena-X Dataspace, powered by Cofinity-X

Cofinity-X

Smooth Operator of Industry Dataspaces

We are on a mission to bring global industries together and empower sovereign data exchange.

Oktober 2023
Go-Live of Catena-X Dataspace, powered by Cofinity-X

Cofinity-X is a Joint Venture founded in January 2023 by 10 Shareholders

BASF We create chemistry · BMW GROUP · Henkel · Mercedes-Benz · SAP · SCHAEFFLER · SIEMENS · T-Systems · VOLKSWAGEN · ZF

Unlock the Power of Dataspaces

Cofinity-X

Unlock the Power of Dataspaces

Focus on your Core Business, while we ensure your Smooth Dataspace Integration.

Cofinity-X provides **access and guidance** to the Catena-X dataspace.
Then we empower you to exploit its full potential for your **long-term success.**

Unlock the Power of Dataspaces

Dataspace Lab

Our Dataspace Lab enables you to develop and **validate your initial Proof-of-Concept (PoC)** for secure data exchange.

Easily integrate supply chain data, share compliance reports, or test **new collaboration models in our pre-configured test environment.**

Based on Tractus-X Tech-Stack, but no mandatory enforcement of Catena-X Standards.

Start your free trial ↗

A **Proof-of-Concept:** Immediate access to a fully functional test environment.

B **Minimal Setup Time**: Start right away and enjoy a free 30-day trial.

C **Support**: Benefit from direct guidance from Dataspace professionals.

Dataspace Lab Onboarding Journey

3 Simple Steps into a fully functional Test-Environment

Register
your Company

Connect
to the Dataspace

Proof-of-Concept
for Data Exchange

01

Register
your Company

We will prepare your account and ask you to confirm your company details, such as VAT-ID and address.

A clearing house will validate the data before **we generate your unique Business Partner Number (BPN)**, essential for all activities within the dataspace.

Start your registration ↗

01 Provide your **company data**

02 External **clearing house** validates your data

03 You **receive your BPN** and access to the **test environment**

02

Connect
to the Dataspace

Before you can exchange data within the ecosystem, you need to set up your technical environment.

Whether you build or buy, one thing is crucial:

✓ **Eclipse Dataspace Components** (EDC)

Now that you have access, it's time to get set up for secure data exchange. With Cofinity-X, you get an out-of-the-box **Dataspace OS EDC-Connector** included in your trial subscription to get you up and running quickly and seamlessly.

For those who prefer flexibility, you can also **integrate your own open-source components or explore alternative solutions** available on the market.

Our team is on hand to guide you through the setup process, ensuring a smooth experience tailored to your needs.

03

Proof-of-Concept

Data Exchange

Once your setup is complete, you can **begin exchanging test data with a Test Company or other Business Partners** within the Dataspace ecosystem.

This step allows you to validate secure data exchange, evaluate integration with your systems and explore **real-world collaboration scenarios**.

Scaling Beyond Proof of Concept

- ✓ Optimising data workflows to improve automation and efficiency
- ✓ Explore advanced security measures for improved compliance
- ✓ Connecting with additional business partners to extend collaboration

With tailored support, you can move seamlessly **from pilot to production-ready data integration**, unlocking new business opportunities and strengthening your data ecosystem.

Dataspace Lab

*Exclusive Offer for Dataspace Pioneers

30-day free trial, then €4,000 per year*

Dataspace Access

Get exclusive access to a fully functional Test Environment, based on Tractus-X Tech-Stack.

Dataspace Connector

Dataspace OS connects you seamlessly and provides all essential tools for participation.

Customer Support

Best-in-class Customer Support, delivered by Dataspace Pioneers and Integration Experts.

Cofinity-X Portal & Marketplace

Cofinity-X Dataspace OS

Cofinity-X

Cofinity-X

Let’s connect and start a great journey together.

Niklas Midolo

Product & Strategy Manager

niklas.midolo@cofinity-x.com

https://www.cofinity-x.com/dataspace-lab

PUBLIC © 2025 Cofinity-X GmbH, Köln. All Rights Reserved

Data Spaces Symposium

Supply Chain Radar: Efficient and proactive countermeasures to impending crises

Julien Adelberger

ADVANEO

SUPPLY CHAIN RADAR

Supply Chain Radar – Managing crises proactively and efficiently

Use of data for company-specific crisis defense

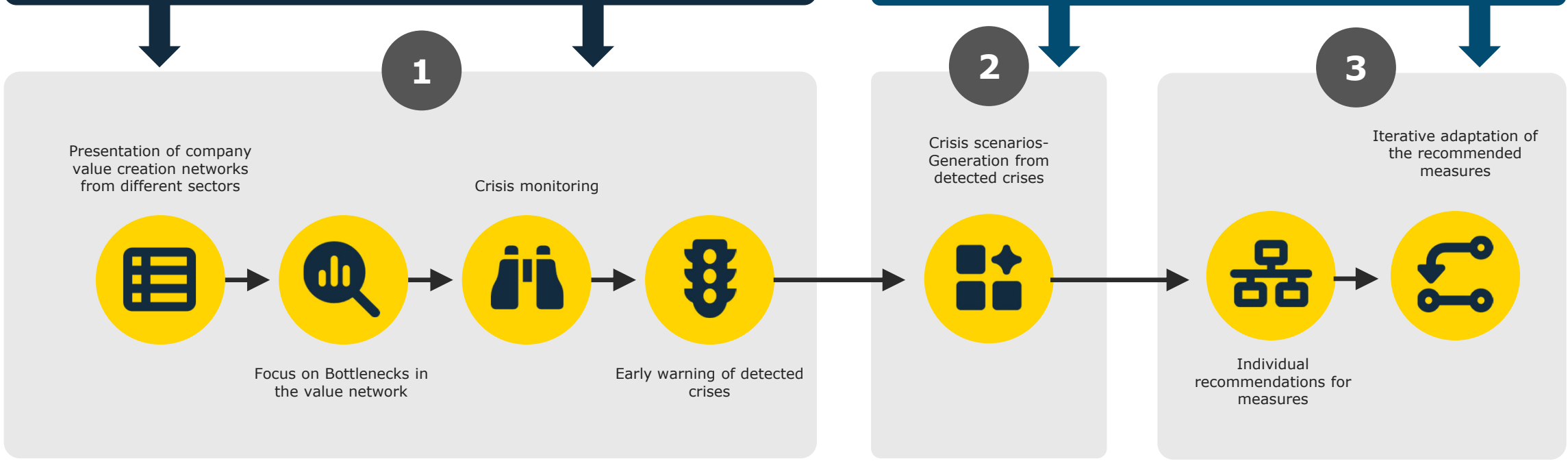
Company Data

(Internal Processing)

- Master Data
- Locations
- Product Data
- Production
- Supply Network
- Finances

Crisis Triggers

- Earthquake
- Volcanic eruption
- Extreme weather
- Pandemics
- Industrial accidents
- War
- Cyber attacks
- Geopolitical conflicts



Benefits of the SCR for SMEs

- Customized “software as a service” solution for crisis management
- No own IT infrastructure necessary
- Quick start
- Use of (sensitive) company data significantly increases the value of early risk detection and rapid action
- Sensitive data can be used without loss of IP protection and without disclosing business secrets

Use Case Description

- Forward-looking risk and crisis management in supply chains
- First demonstrator available
- Modularly expandable
- Investigation of contingencies and options
- Continuous Development via German and EU funded research projects
- Online Demo:bretfeld@advaneo.de

SUPPLY CHAIN RADAR

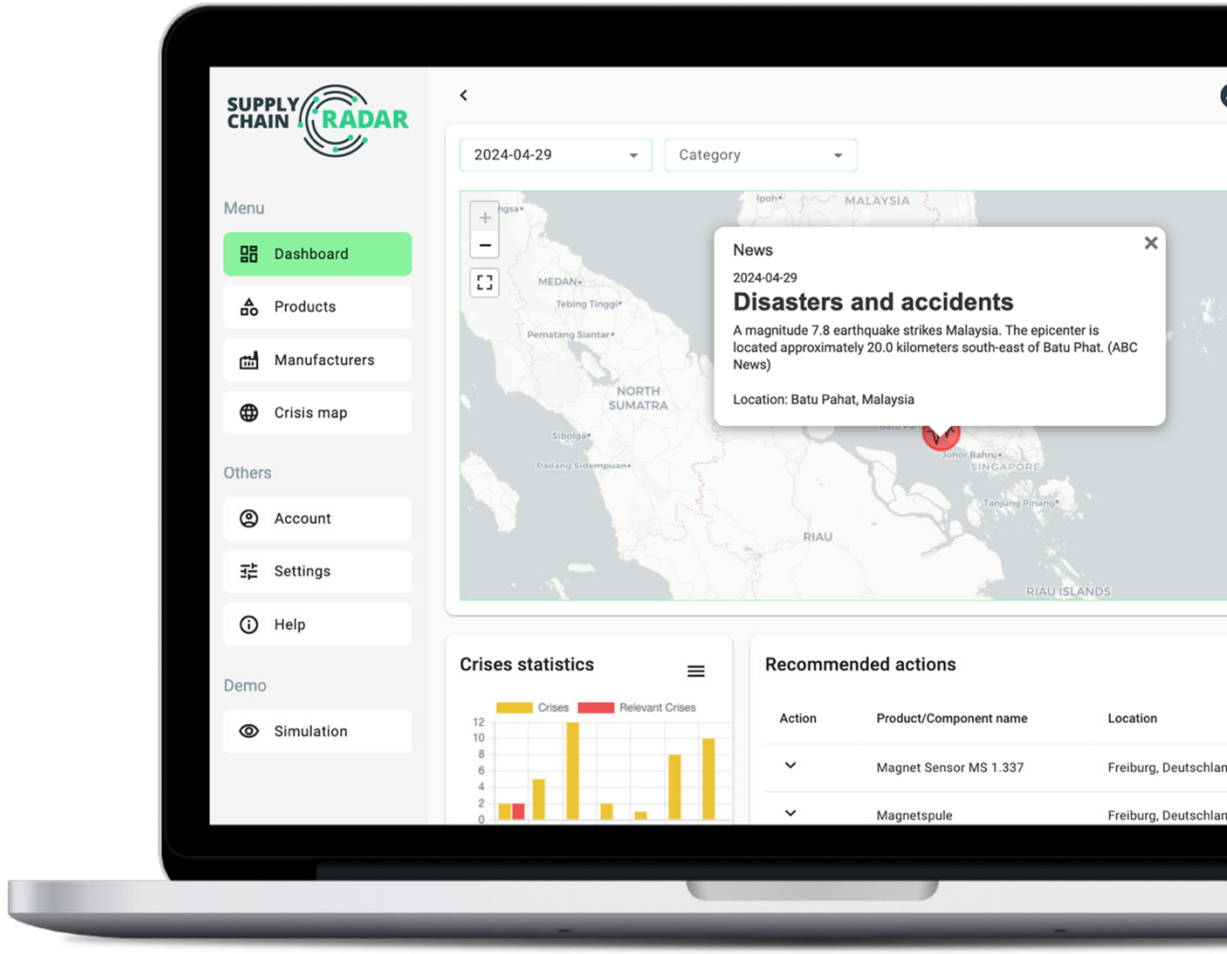
Stay ahead of the wave with the Supply Chain Radar - Key Features

Overcoming crises, securing competitive advantages - how SMEs benefit from the SCR

The particular need for SMEs is primarily due to the fact that they generally do not have their own risk management team. The SCR fills this gap in an uncomplicated way and enables SMEs to set up an early warning system by giving them access to the SCR “as a service”.

Further advantages:

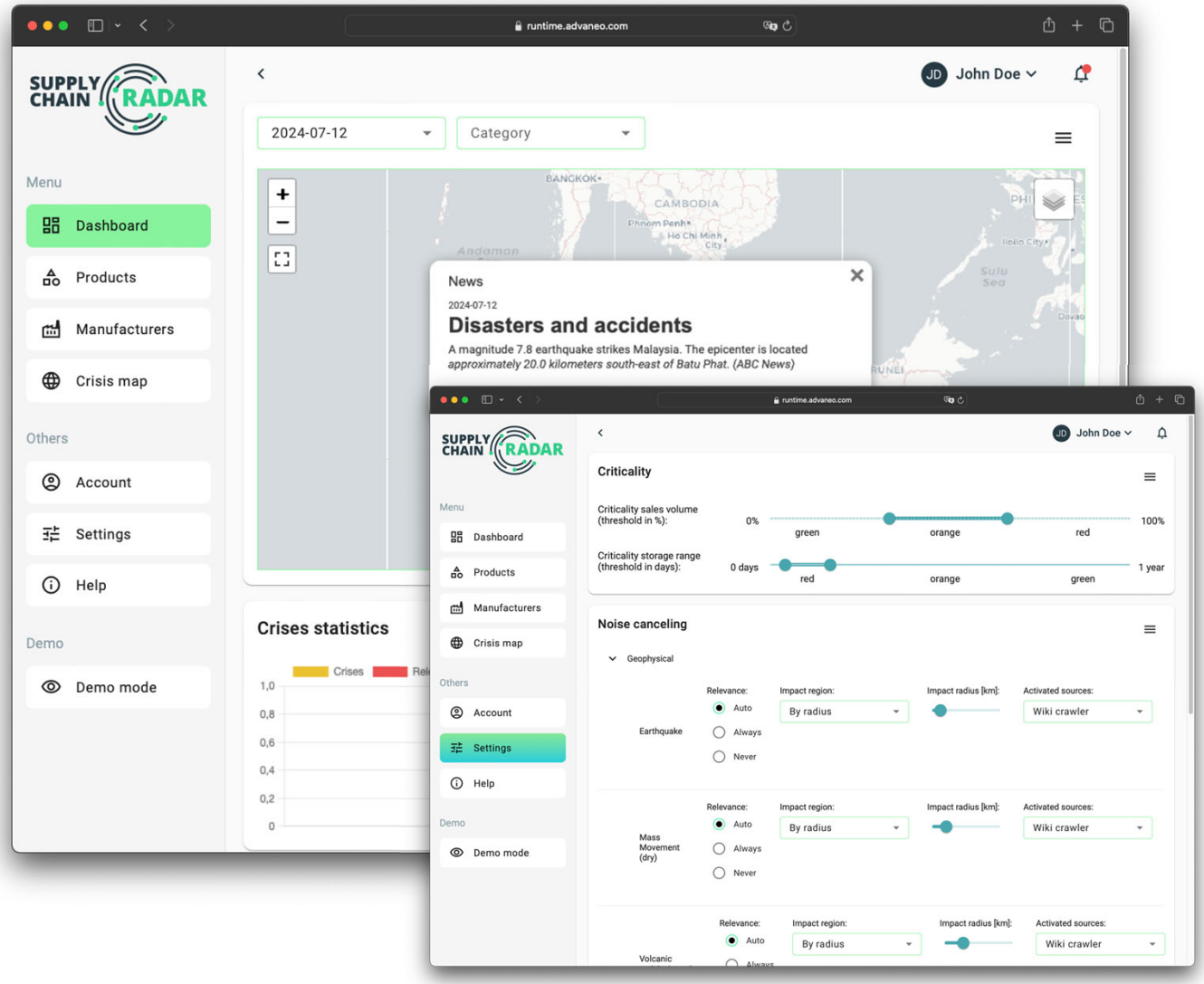
- Creation of transparency for purchasing, controlling and management
- Risks in supply chains can be identified earlier, and alternative courses of action can be initiated more quickly
- Financial or production-related risks and disruptions can be avoided or at least minimized



Modular structure of the individually configurable dashboard

An efficient early warning system for risk assessment and the development of dynamic crisis management

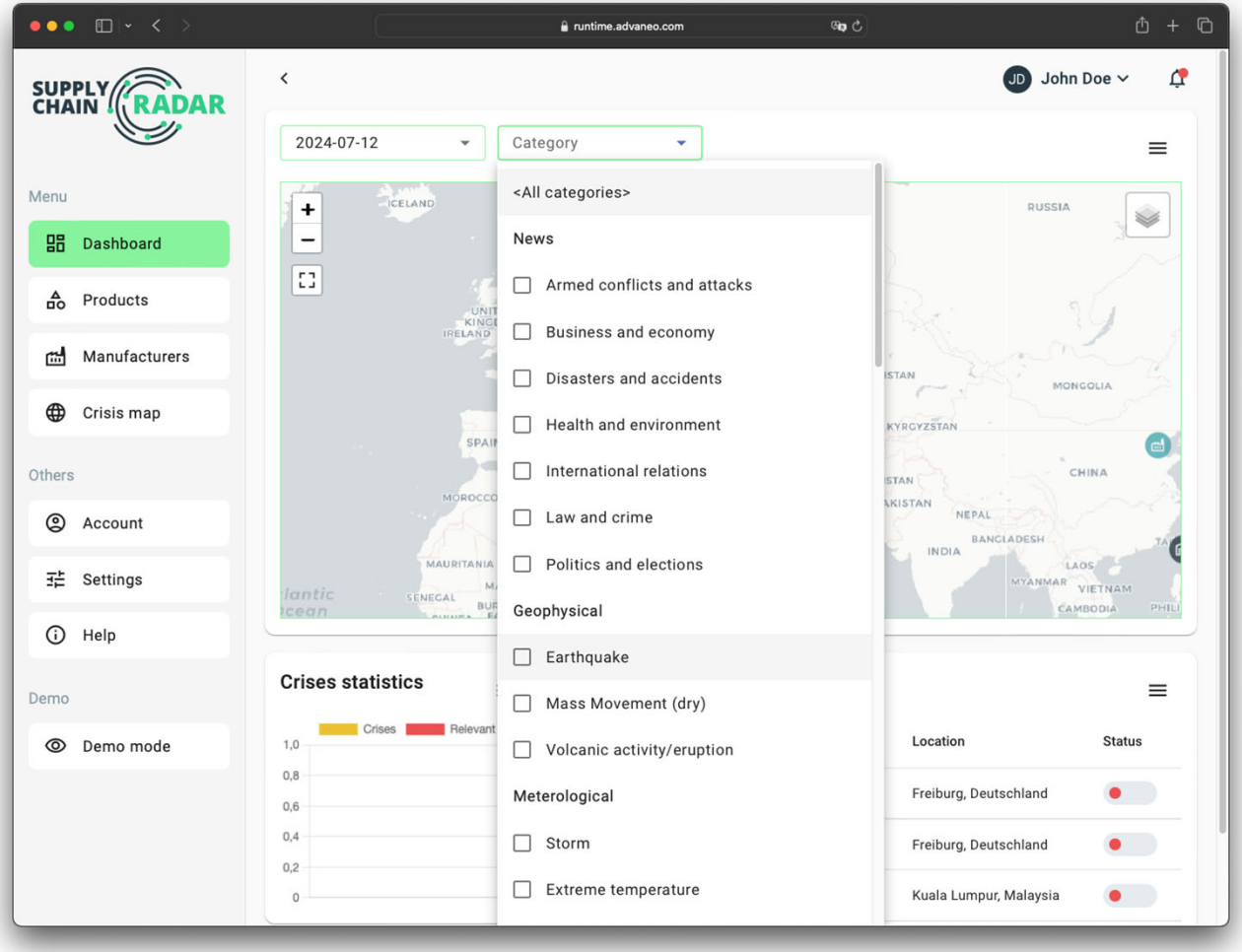
- **Separate systems:** The SCR consists of a general part (crisis monitoring) and a local part that processes sensitive company data.
- **Local data processing:** Sensitive data is processed locally on your systems and not transferred to the cloud.
- **Secure data exchange:** Only necessary geocoordinates are exchanged between the systems.



Feature: Global Crisis Radar

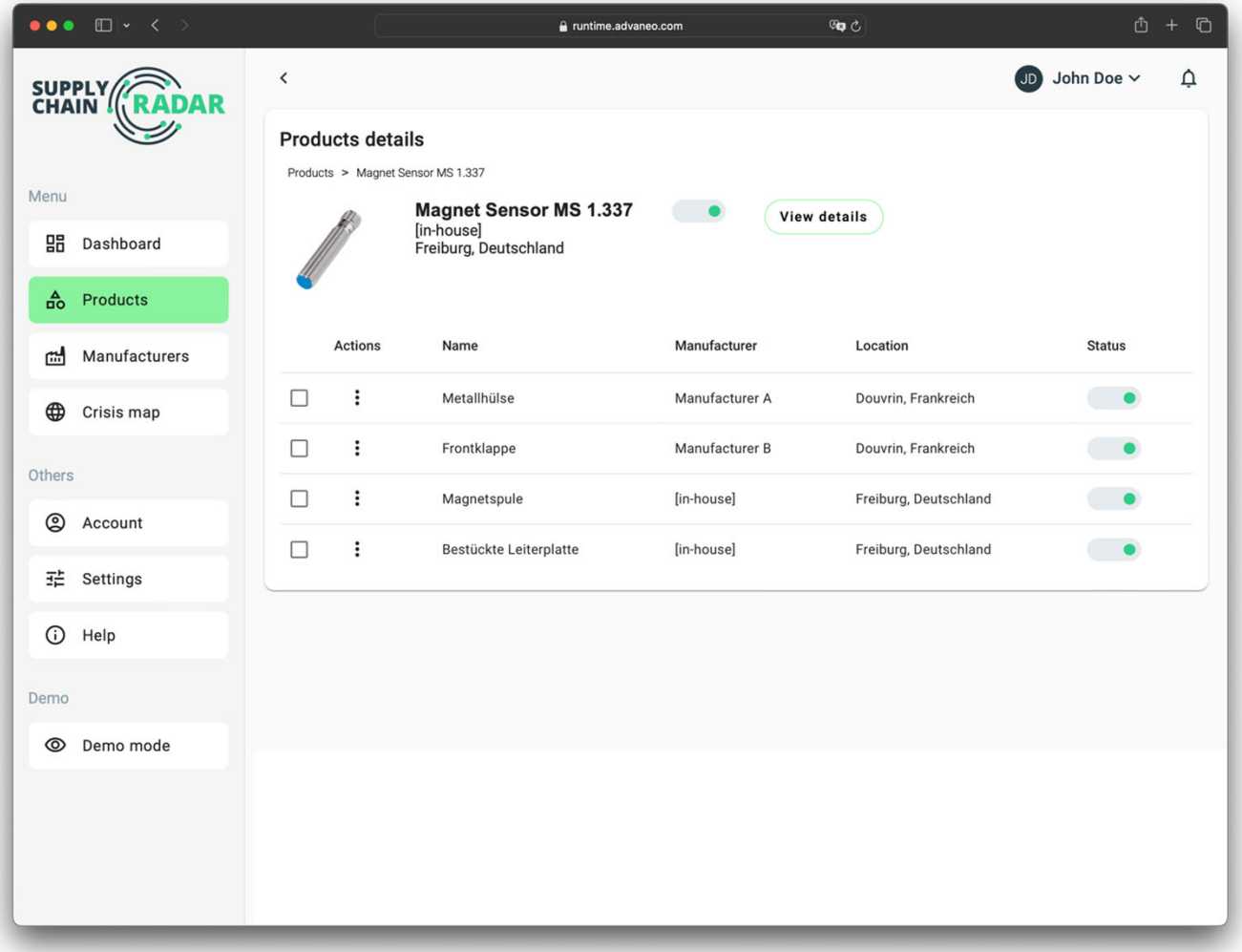
Crisis Radar

- Worldwide recording of crisis-triggering events in 48 categories
- Holistic overall view
- Modular, individually configurable and quickly expandable
  - Criticality of the traffic light function can be set individually
  - Individually configurable data sources at product and component level
  - Impact calibration of events
  - “pay-per-use” - purchase of data and services



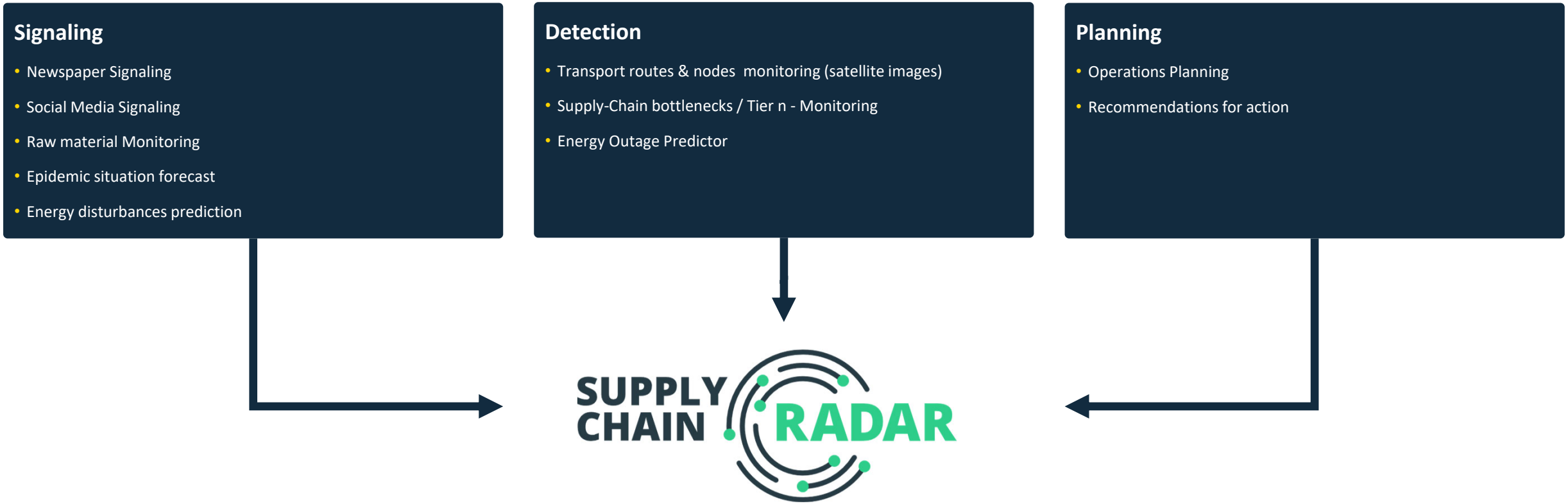
Feature: Product and component description

- Recording of all (important) products and components
- Recursive recording/display of tier-n components
- Clear overview of location information, status and separation of inhouse or external suppliers for specific product entries



Outlook: AI-Modules in the Supply Chain Radar

The AI-based analysis tools are being developed in the PAIRS R&D project and other AI lighthouse projects of the Federal Ministry for Economic Affairs and Climate Protection.



Thank you for your attention!

If there are questions, please do not hesitate to ask...

ADVANEO

Access to the world of data

Julien Adelberger
Business Development Manager

T +49 (0) 211 87 66 91- 0
M +49 (0) 152 513 729 18

adelberger@advaneo.de

Jürgen Bretfeld
CEO

T +49 (0) 211 87 66 91- 0
M +49 (0) 178 8 32 09 65

bretfeld@advaneo.de

ADVANEO GmbH
Neuer Zollhof 2
40221 Düsseldorf

T +49 (0) 211 876691-0

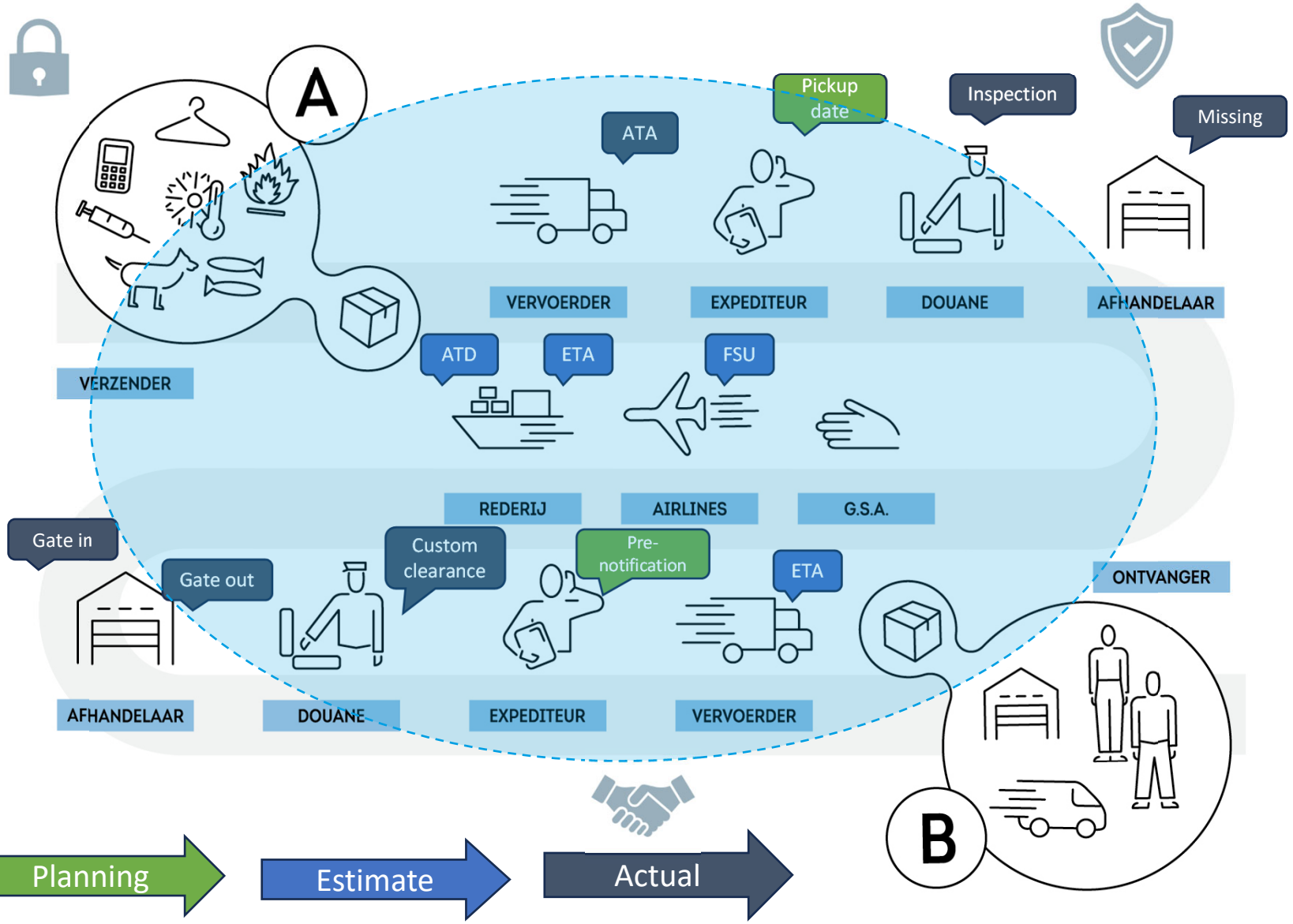
© ADVANEO

Data Spaces Symposium

BDI & Digital Freight Documents:
Why and how to get involved

Steven Schouten

Controlled Data sharing with the BDI



Parties in the chain are informed at the same time about relevant events

You will receive the data for which you are authorized

A virtual data network with ad-hoc links

Join these and many others

Koplopers

BOEKESTIJN TRANSPORT SERVICE

RST

BTT MULTIMODAL CONTAINER SOLUTIONS

LambWeston SEEING POSSIBILITIES IN POTATOES

Vos Logistics

MS Amlin

CTT INTERMODAAL TRANSPORT

Optimodal We do it synchromodal.

Kraaijeveld Surprisingly well arranged for you!

CTD CONTAINER TERMINAL DOESBURG

H.ESSERS

Technologie & eCMR providers

INNOTRACTOR ZERO WASTE SUPPLY CHAIN

PHAROX LOGISTICS INTELLIGENCE

TransFollow

secure logistics

[sentors]

Collect Go

portbase

CERTUS AUTOMATION

.....

CARGOLEDGER

Nieuwe deelnemers

FRIGO

ROC

SCHAVEMAKER Logistics & Transport

Unidex

BTC LOGISTIEK BV

HEUSCHEN & SCHROUFF ORIENTAL FOOD

melkweg fritom LOGISTIC SOLUTIONS

.....

bdi

What do we offer

BASIC DATA INFRASTRUCTURE

(Technical) support

Stakeholder engagement

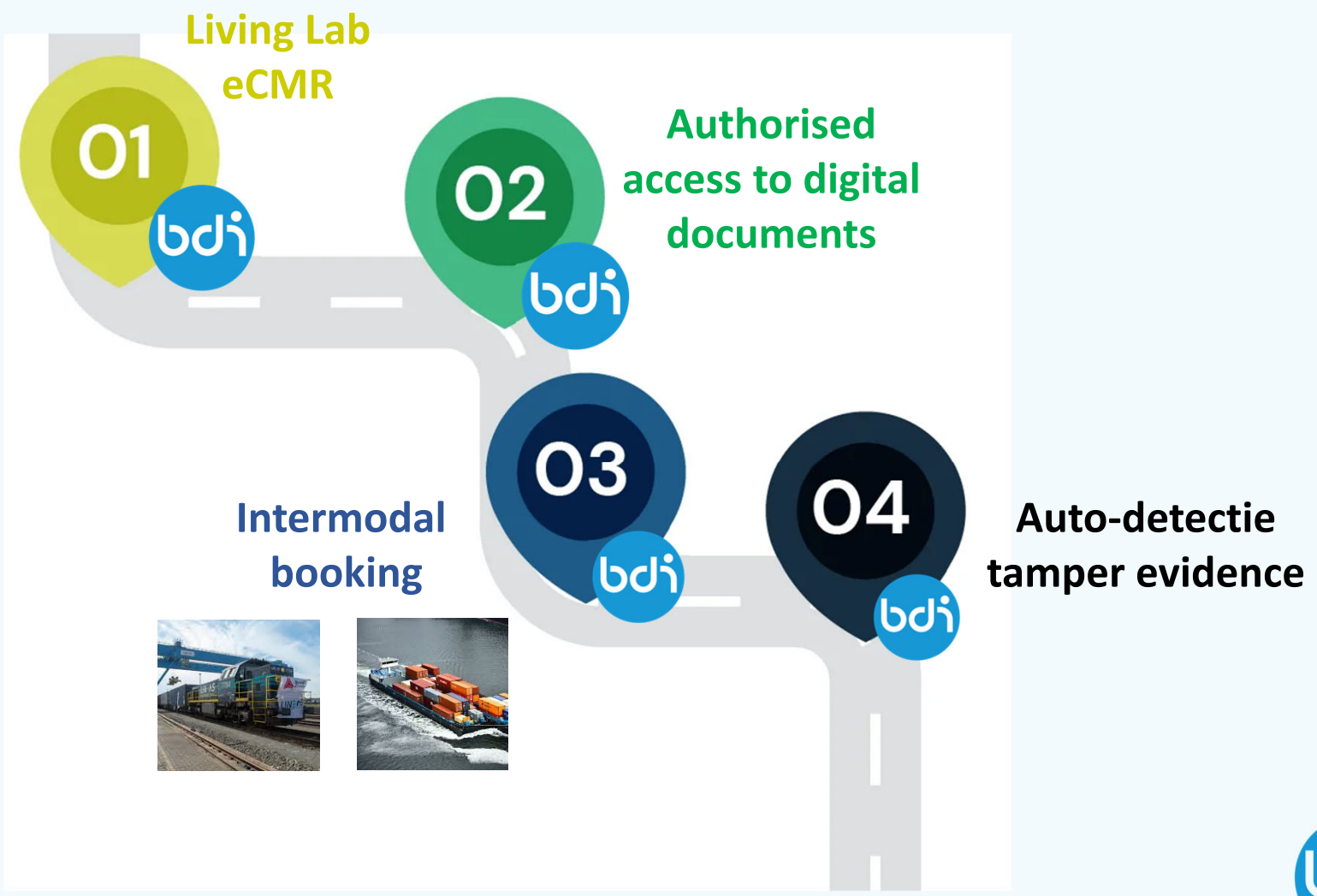
Governance set-up

Living Lab Digital Freight Documents

- **Digitise documents**. Drivers now often write a paper CMR themselves or receive one at the counter (regional terminals).
- **Saving time** in the handling of the container, for both shippers (terminal, producer) and transporters.
- **Provide more information**, For example OCR / camera images.
- **Standardised processes** for data sharing and signing of documents across terminals. Container transfer is based on gate in/out at the participating terminals.
- **Combating criminal activities**. With e-CMR we increase the security in the operational processes. For example, in the chartering. From an insurance perspective this can lead to a lower deductible or the elimination thereof for carriers.

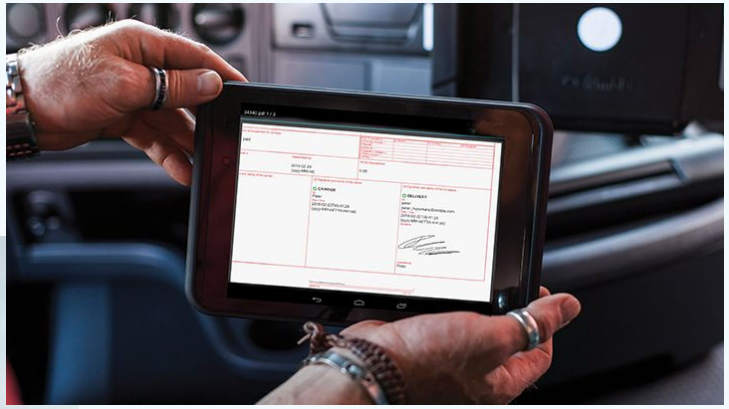
Roadmap

VISIE


Living Lab
eCMR
01
bdi
02
Authorised
access to digital
documents
bdi
03
Intermodal
booking
bdi
04
Auto-detectie
tamper evidence
bdi

Success

Living Lab
eCMR



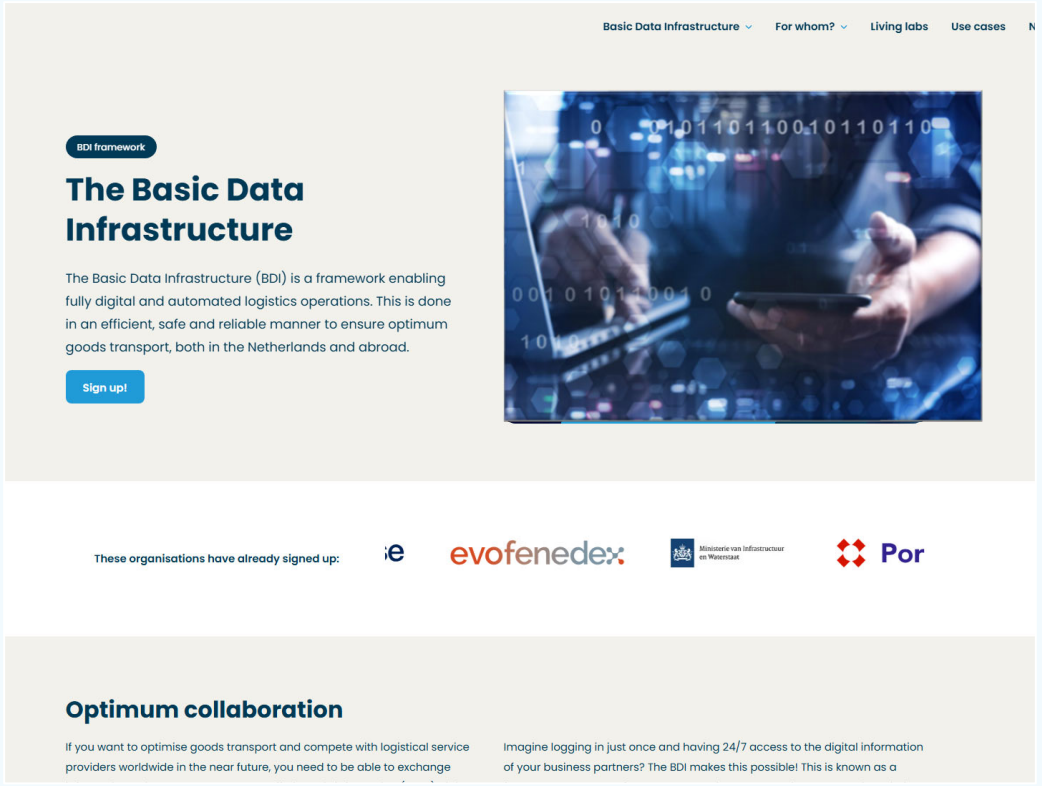
Succesfactoren voor adoptie

- Level playing field
- No vendor lock-in
- Broad participation of chain partners
- Operationalise in practice

Collect Go
TransFollow
CARGOLEDGER

How to join

bdinetwork.org



basic data infrastructure

Contact

Connekt
Ezelsveldlaan
2611 RV Delft

Postbus 48
2600 AA Delft

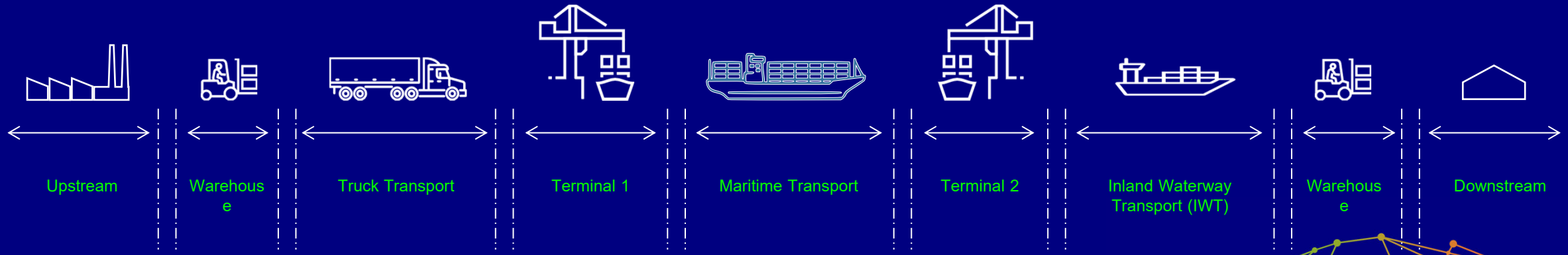
+31 15 251 65 65
https://bdinetwork.org/

Data Spaces Symposium

From outbound steel delivery to inbound sportswear shipment - fully digitized and made secure through data spaces

Birger Schrevens

The Fragmented Supply Chain



Uncertainty

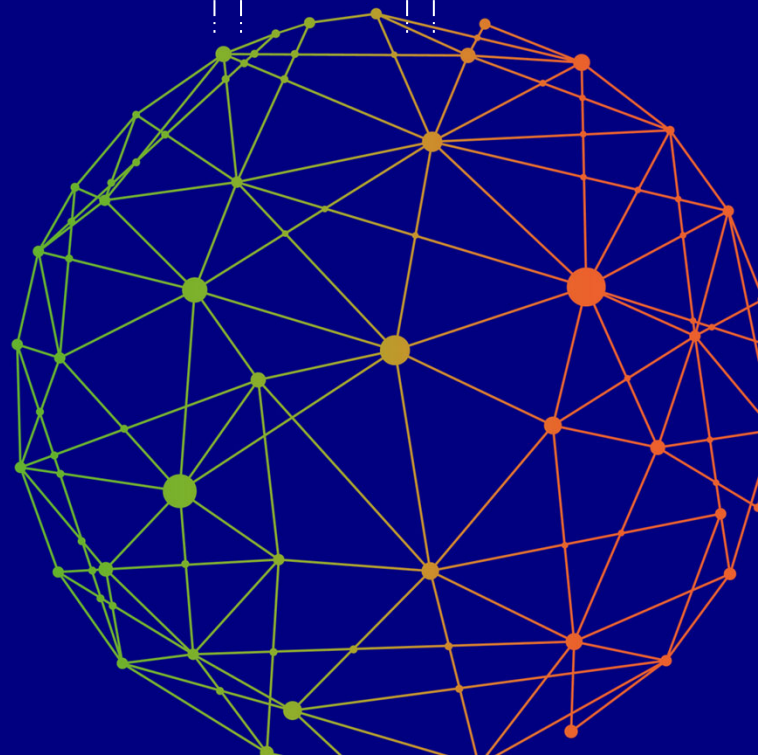
Interconnected supply chains cause cascading effects when disruptions occur

Limited visibility

Lack of an E2E view of the supply chain affect planning optimization or response to disruptions

Inability (or unwillingness) to collaborate

Technical or competitive restrictions limit otherwise beneficial collaborations



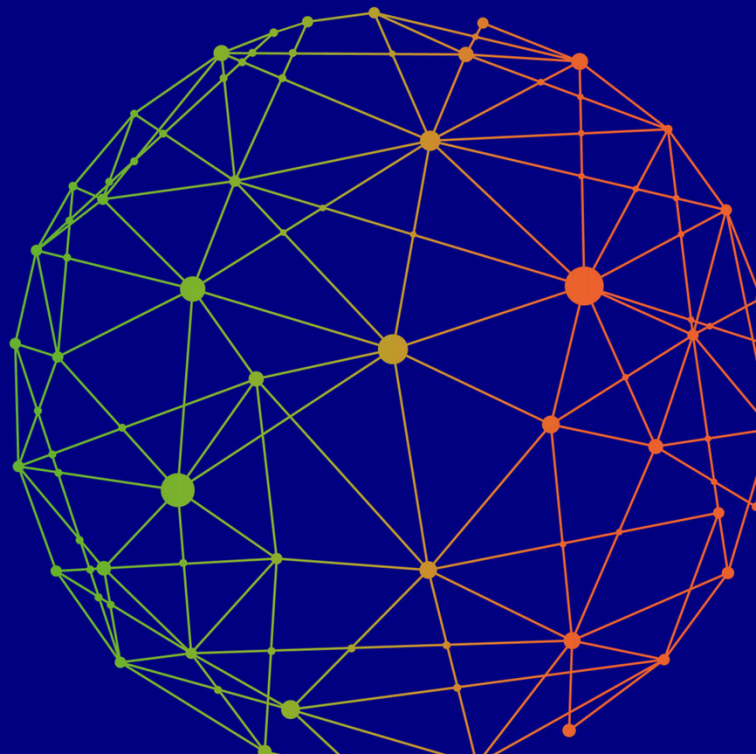
SYTADEL project

What?

Apply Data Space technology in multimodal supply chains to create end-to-end visibility

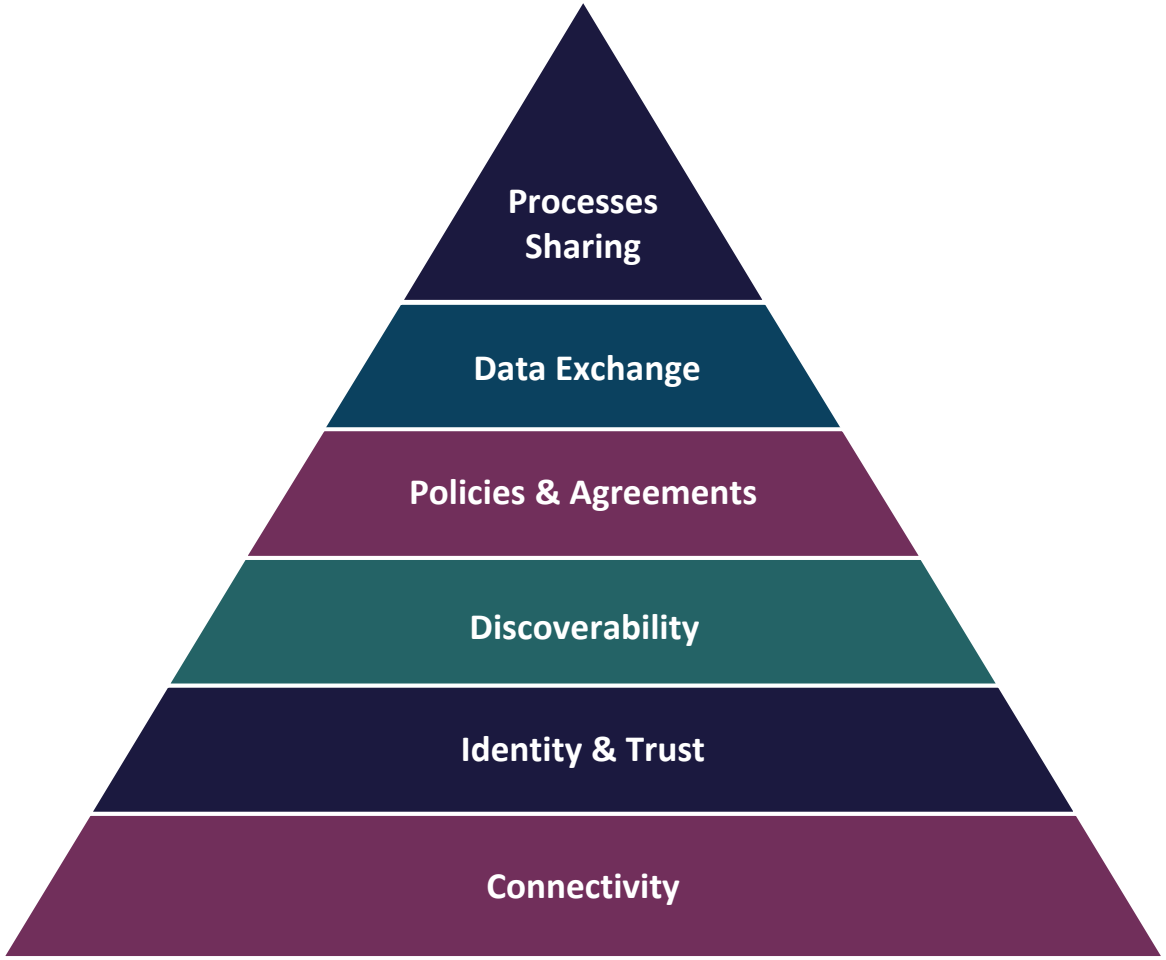
How?

1. EDC Connector to automate real-time data exchange according to role-based policies
2. ETA predictions to synchronize logistics processes
3. Anticipate delays by comparing Estimated to Required Time of Arrival



Nike-BCTN inbound sportswear shipment

Data Sharing = By-Product of Process Sharing



Collaborate efficiently in an automated way

Exchange information about your services

Determine your collaboration rules

Access all other players & services

Identify yourself

Connect to the network

The Physical Internet Blueprint

A comprehensive vision for implementing the Physical Internet

alice
Alliance for Logistics Innovation through Collaboration in Europe

TNO innovation for life

Get it here: Birger.Schrevens@imec.be

Contact

Birger Schrevens

Senior Innovation Advisor
+32 486 69 00 22

birger.schrevens@imec.be

Data Spaces Symposium

Expert talk |
A data space from three key perspectives

Ute Burkhardt, Riccardo Giovannotti, Pierre Guinault
& Ramy H'cini

Data Spaces Symposium

GDSO growth, new use cases, tyre industry journey

Riccardo Giovannotti

Global Data Service Organisation
for Tyres and Automotive Components (GDSO)

International Non-Profit Association
Established in Belgium in January 2022

Brussels - Belgium

2022 MEMBERSHIPS

5 MEMBERS:

BRIDGESTONE
Continental
GOODYEAR
MICHELIN
PIRELLI

Global Data Service Organisation
for Tyres and Automotive Components (GDSO)

International Non-Profit Association
Established in Belgium in January 2022

Brussels - Belgium

2025 MEMBERSHIPS

12 MEMBERS

BRIDGESTONE
Continental
Giti
GOODYEAR
HANKOOK driving emotion
KUMHO TIRE
MICHELIN
NEXEN TIRE we got you
PIRELLI
PROMETEON
SUMITOMO RUBBER INDUSTRIES
YOKOHAMA

7 ASSOCIATES:

ETRMA European Tyre & Rubber manufacturers' association
ETRTO European Tyre & Rim Technical Organisation
JATMA
KOTMA Korea Tire Manufacturers Association
Tire and Rubber Association of Canada
U.S. TIRE MANUFACTURERS ASSOCIATION

GLOBAL NETWORK

Building the worldwide language that unlocks tyres' potential

CLOUD

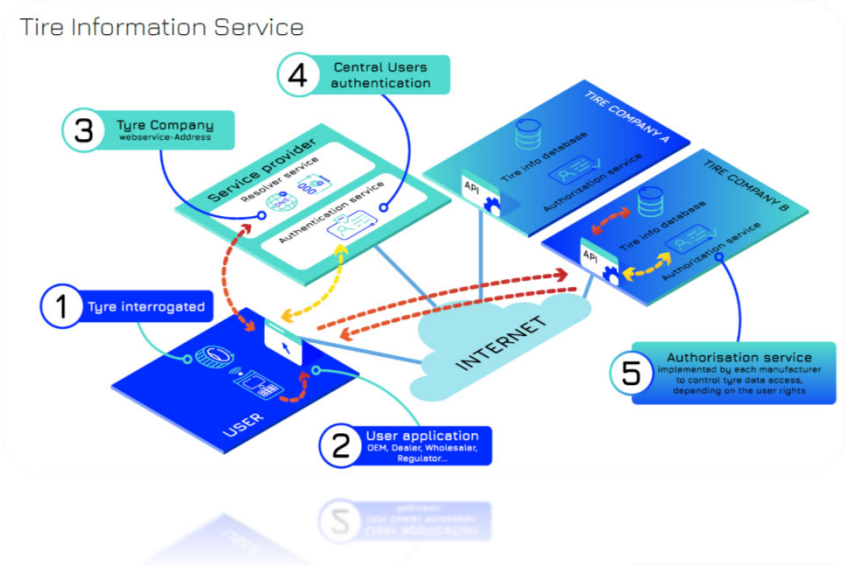
DATA ANALYSIS

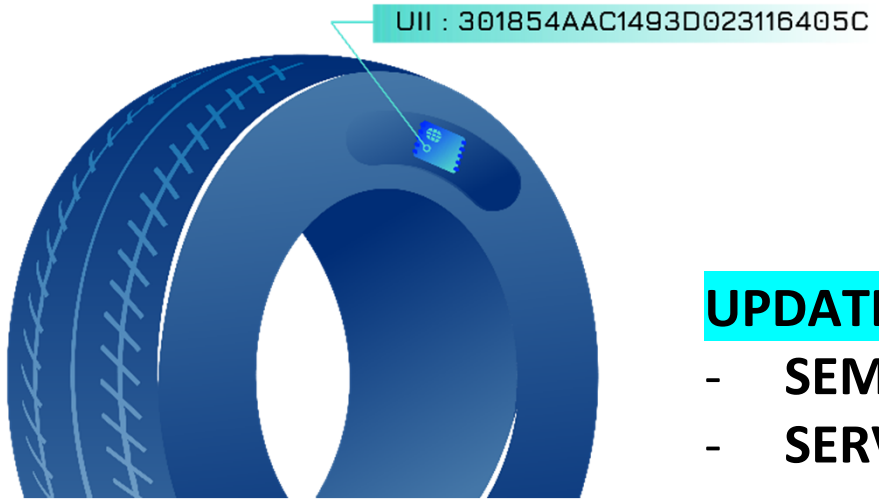
GDSO
STANDARDIZE. SHARE. SIMPLIFY.

DATA SPACE & CONNECTOR

- **Tyre Information Service (TIS)**

GDSO | MARCH 2025





UPDATES

- SEMANTIC: new parameters for OEMs
- SERVICE: query by batch (up to 100 ids)

GDSO
STANDARDIZE. SHARE. SIMPLIFY.

ENABLED USE CASES

- THREE MOMENTS OF TRUTH

THROUGH ELECTRONIC IDENTIFICATION AND DATA SHARING:

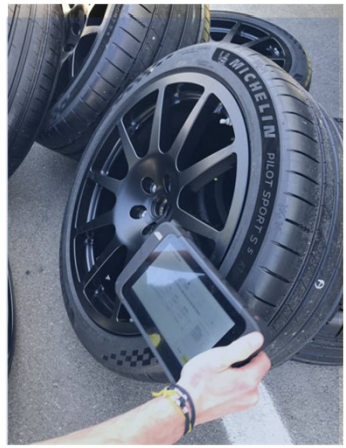
- TRANSPARENCY OF LOGISTICS WORKFLOW INCLUDING CONFIRMATION OF FULFILLMENT (e.g. DELIVERY & INVENTORY) MANAGEMENT

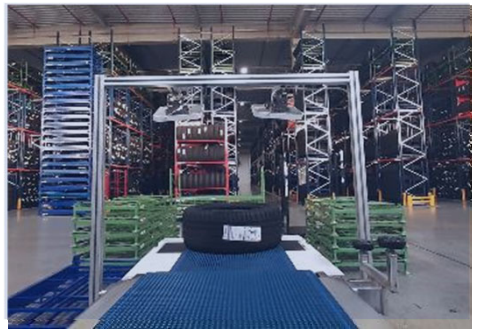
- COMPLIANCE FOR OEMs (THE RIGHT TYRE ON THE RIGHT VEHICLE)

- FOR FLEETS SIMPLIFICATIONS AND COST SAVING

RFID and Tire Data enables efficiency and traceability

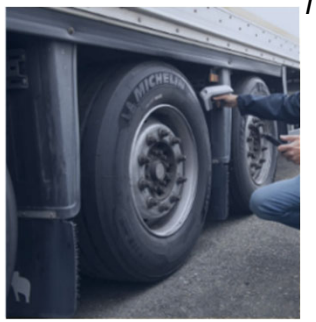
From cradle to grave also contributes to improve customer experience and sustainability





Stock management

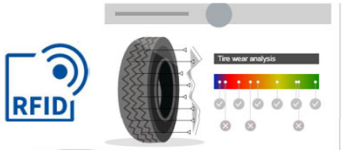
Tire & Wheel assembly



Fleet tires management

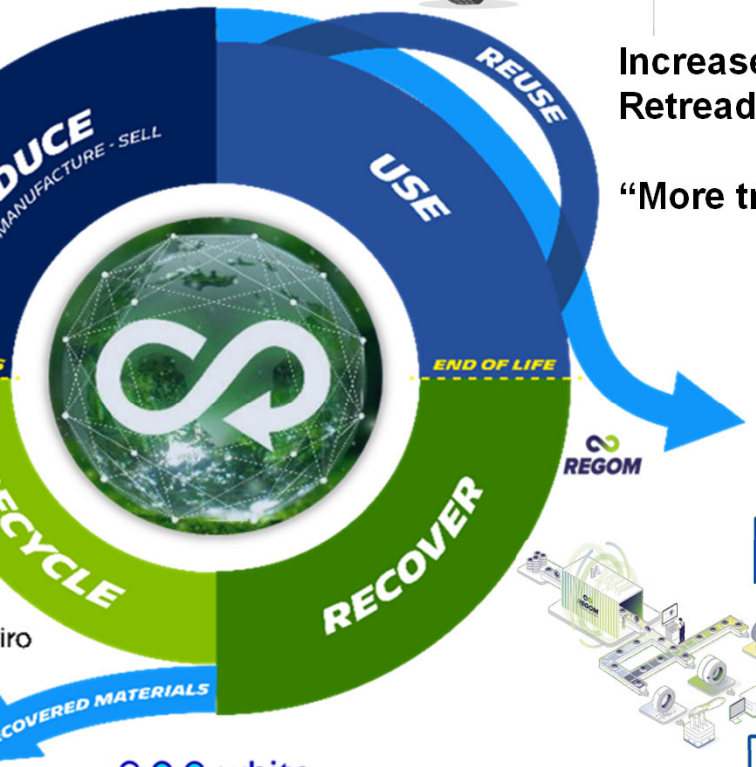
RFID with enriched data till end of life ensure high value through high traceability & sustainable proof

GDSO
STANDARDIZE. SHARE. SIMPLIFY.



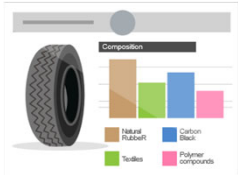
Tire components origin certification

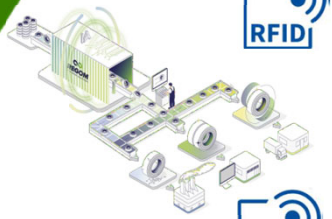
RRM proof
DPP Compliant



Increase reuse rate by pairing “same” tread depth
Retread : more efficient casing collection & diagnostic

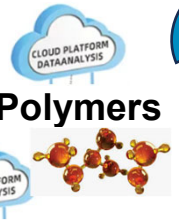
“More transparency in REP funding”





Better sorting quality :
- more material recovery
- avoid material incineration

Automated ELT sorting REGOM



Polymers ID

Bio tech material Data ID

Pyrolysis material ID

After shredding material identification ➔ ID

MICHELIN

GDSO
STANDARDIZE. SHARE. SIMPLIFY.

NEW CONNECTOR
DATA CRADLE TO GRAVE

- **TYRE LIFECYCLE DATA SERVICE**
  EVENTS ALONG TYRES' LIFE

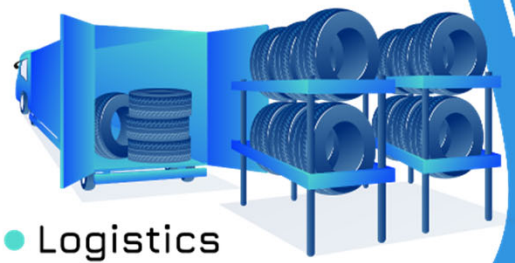
GDSO | MARCH 2025

HOW TO COLLECT KEY EVENTS' DATA ALONG TYRES' VALUE CHAIN?

Tire manufacturers

Good receipt, manage stock, communicate tire details to any 3rd party contractor (tire supplier, lease company etc.) tire hotel & repairing

Distributors / Wholesalers



Logistics

Warehouse entry and exit versus order, systems stock

OEMs

Warehouse, logistics, tire/rim fitment, wheel/vehicle fitment, sensors feed (speed, kms, advanced features like grip levels)

Fleet management

Asset track, tire position on vehicle, vehicle load/tire i.p., tires in stock, tire movements tracked

Quality insurance

Tire identity in case of claim, tracking back to production data

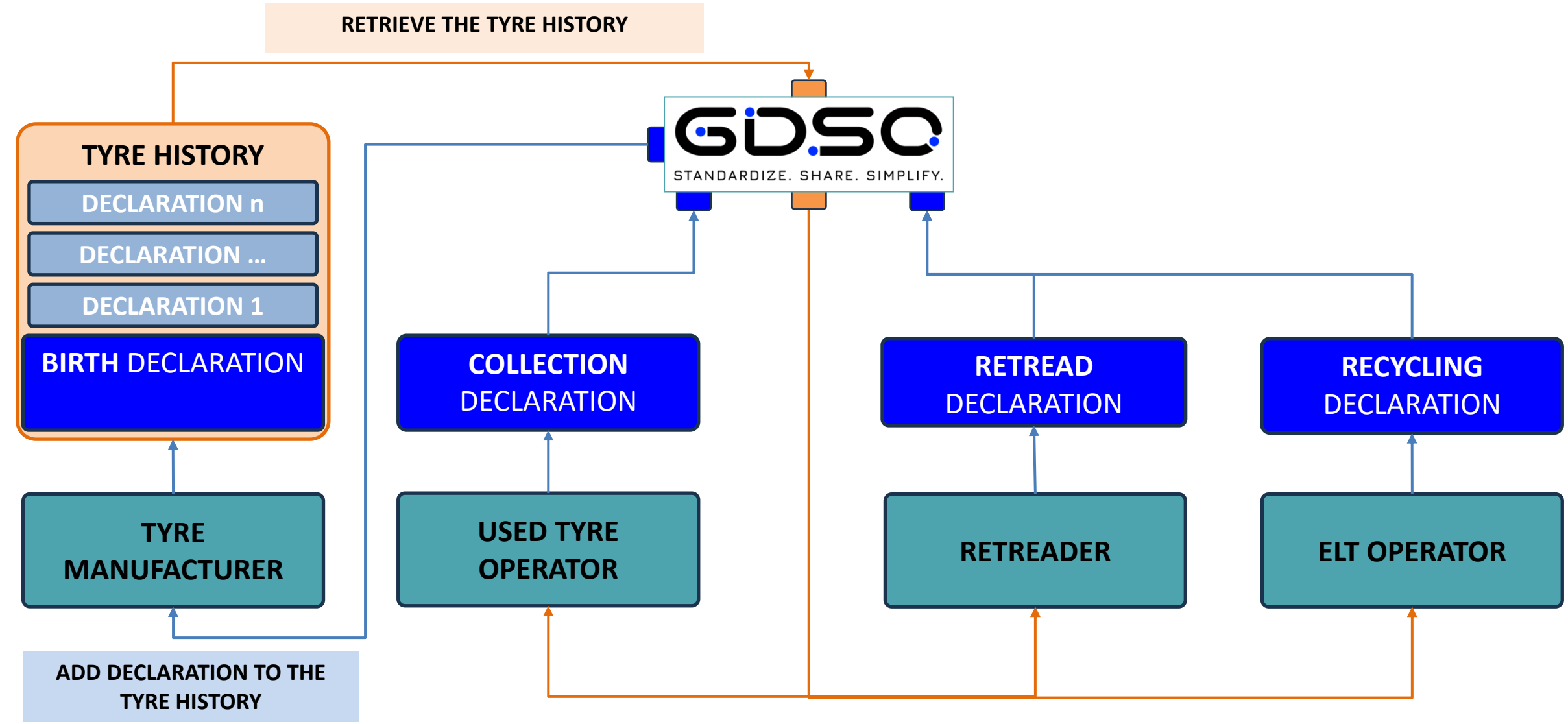
Retreading

Casing identification, traceability, updated identity

End of life

Ensure tires are removed from the market and scrapped, allow recyclers to segregate tires

STAKEHOLDER | DECLARATION | TYRE HISTORY



STAKEHOLDER | DECLARATION | TYRE HISTORY

GDSO

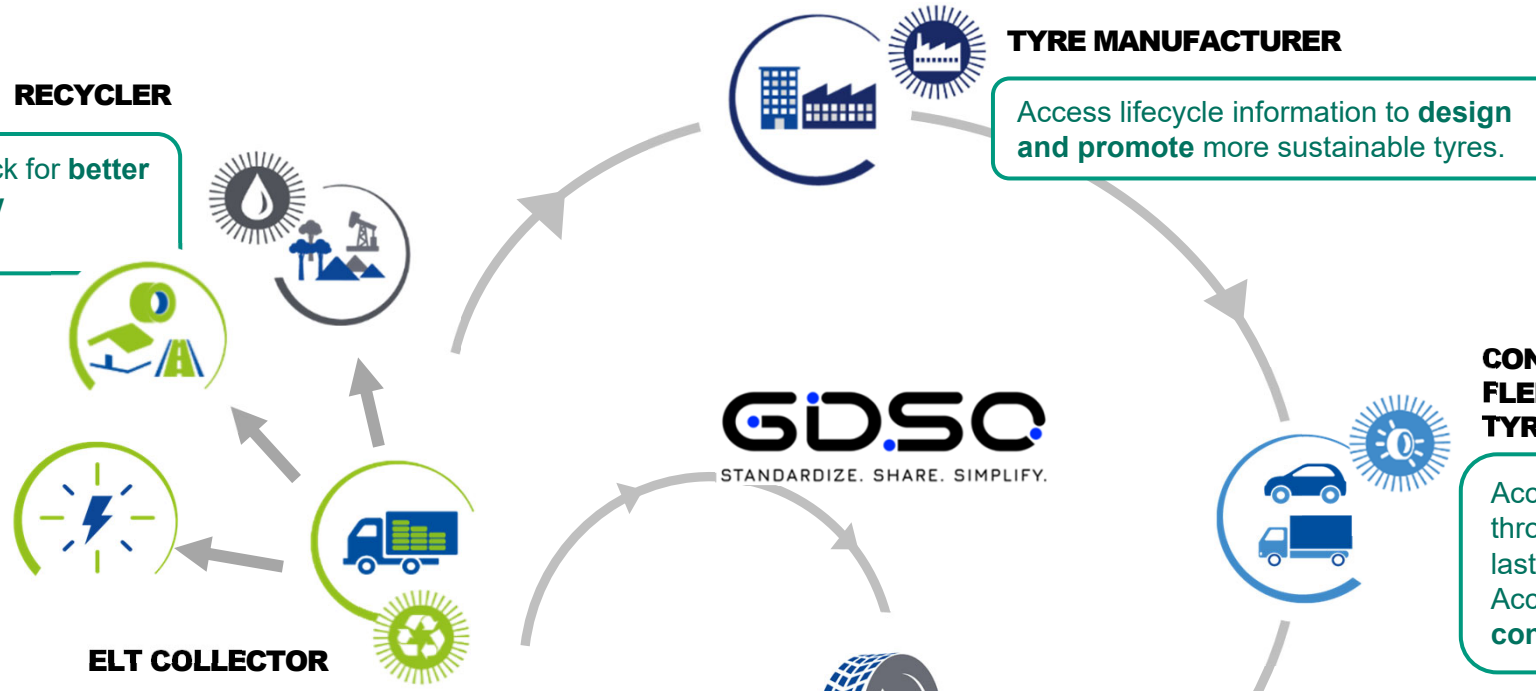
STANDARDIZE. SHARE. SIMPLIFY.

Beyond tyre's identification

www.gdso.org info@gdso.org

AVENUE D'AUDERGHEM 22-28 BTE 9 • 1040 ETTERBEEK (BRUSSELS - BELGIUM)

Thanks to DPP, tyre circular economy digitization will benefit to every stakeholder



TYRE MANUFACTURER

Access lifecycle information to **design and promote** more sustainable tyres.

CONSUMER
FLEET MANAGER
TYRE SERVICE PROVIDER

Access to **Tyre-as-a-Service offers** through connected tyres to make them last longer.
Access information **to increase confidence on second-hand tyres.**

RETREADER

Access information about previous life for **better diagnostic and increase retread rate** (today 25% for trucks*).

ELT COLLECTOR

Access information on end-of-life tyre **to increase re-use and refine sorting for better recycling.**

More than 90% of ELT are collected in Europe, 40%* still go through energy recovery.

RECYCLER

Access to qualified feedstock for **better recycled material and new valorization channels.**

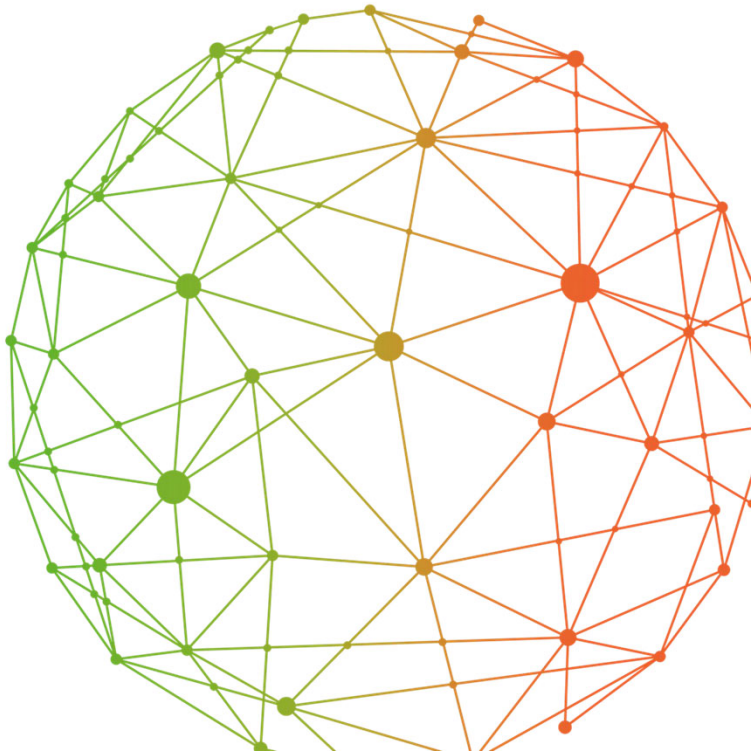
Funded by the European Union

*ETRMA website, New End-of-Life Tyres statistics for 2020 and 2021 – ETRMA; The socio-economic impact of truck tyre retreading in Europe - ETRMA

Driving real impact with Data Spaces

Data Spaces Symposium 2025

Ramy H'cini
CTO Think-it



DSBA ■ BDV BIG DATA VALUE ASSOCIATION FIWARE FOUNDATION gaia-x INTERNATIONAL DATA SPACES ASSOCIATION

DATA SPACES SUPPORT CENTRE

Funded by the European Union

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

A bit of our background

Mobility Data Space
Data Sharing Community

- Official Connector Maintainer
- Official Connector as a Service provider

Catena-X
Automotive Network

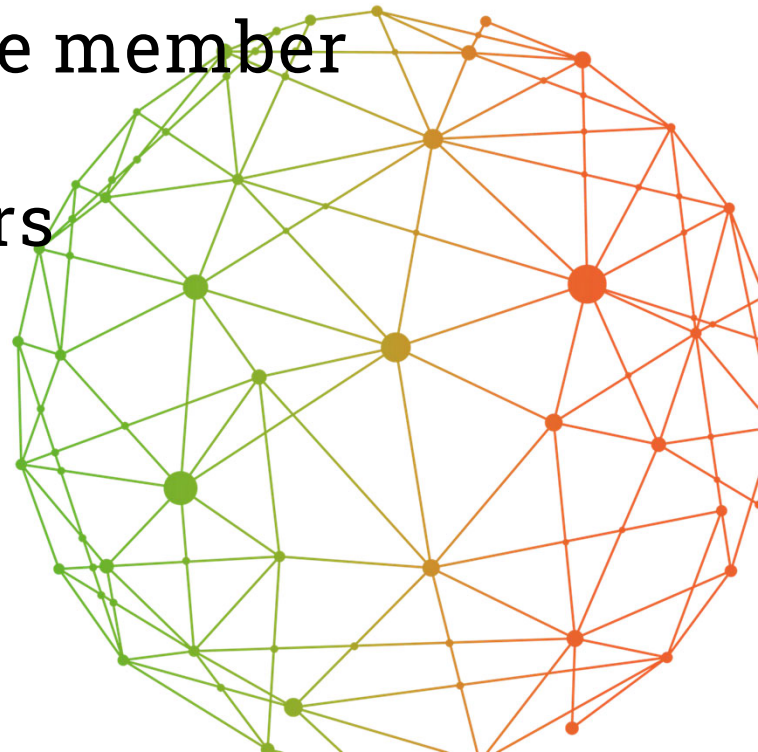
- Architecture committee member

ECLIPSE FOUNDATION

- Top core EDC committers
- DCP co-authors

aws

- Data Spaces Partner
- MVDS guide authors



Think-it

Solving for scope 3 emissions

Smart Freight Centre

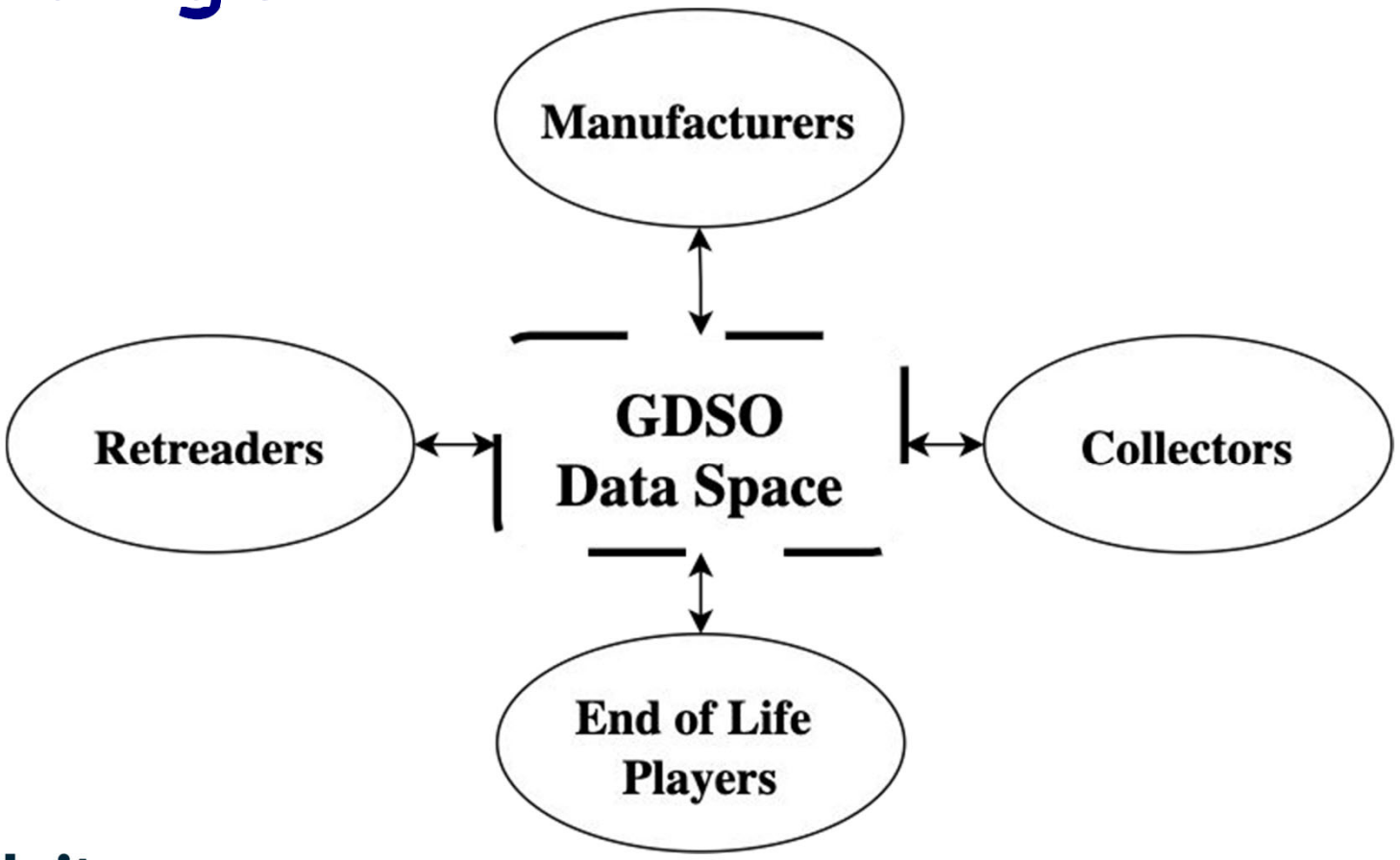
Time to exchange emissions between participants

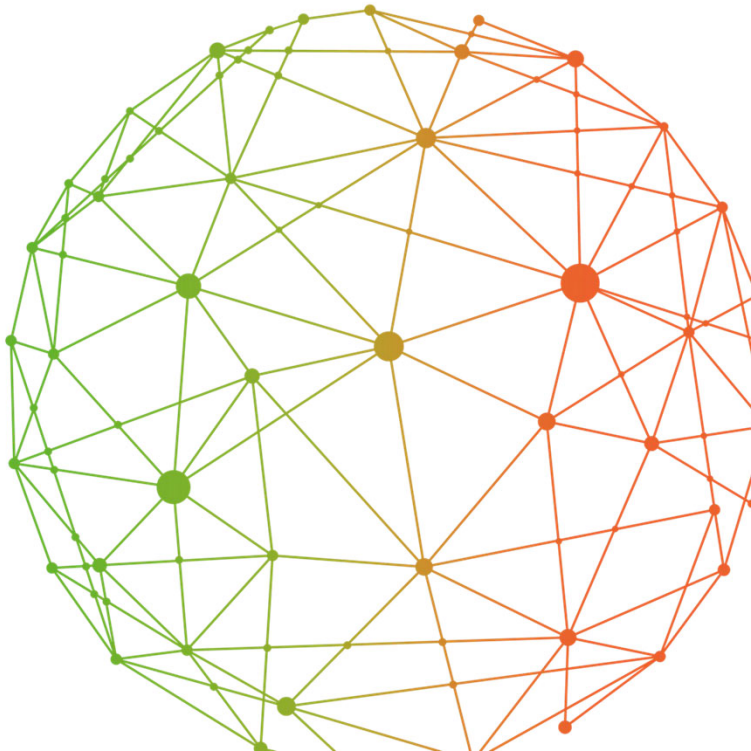
30 hours → 2 hours

Data Space Building Blocks	Technical Implementation
Connector	Tractus-X EDC Connector v0.5.3
Exchange policies	Business Partner ID Policy
Identity Service	MIW (SSI)
Use Case Application	SFC Data Exchange API

Think-it

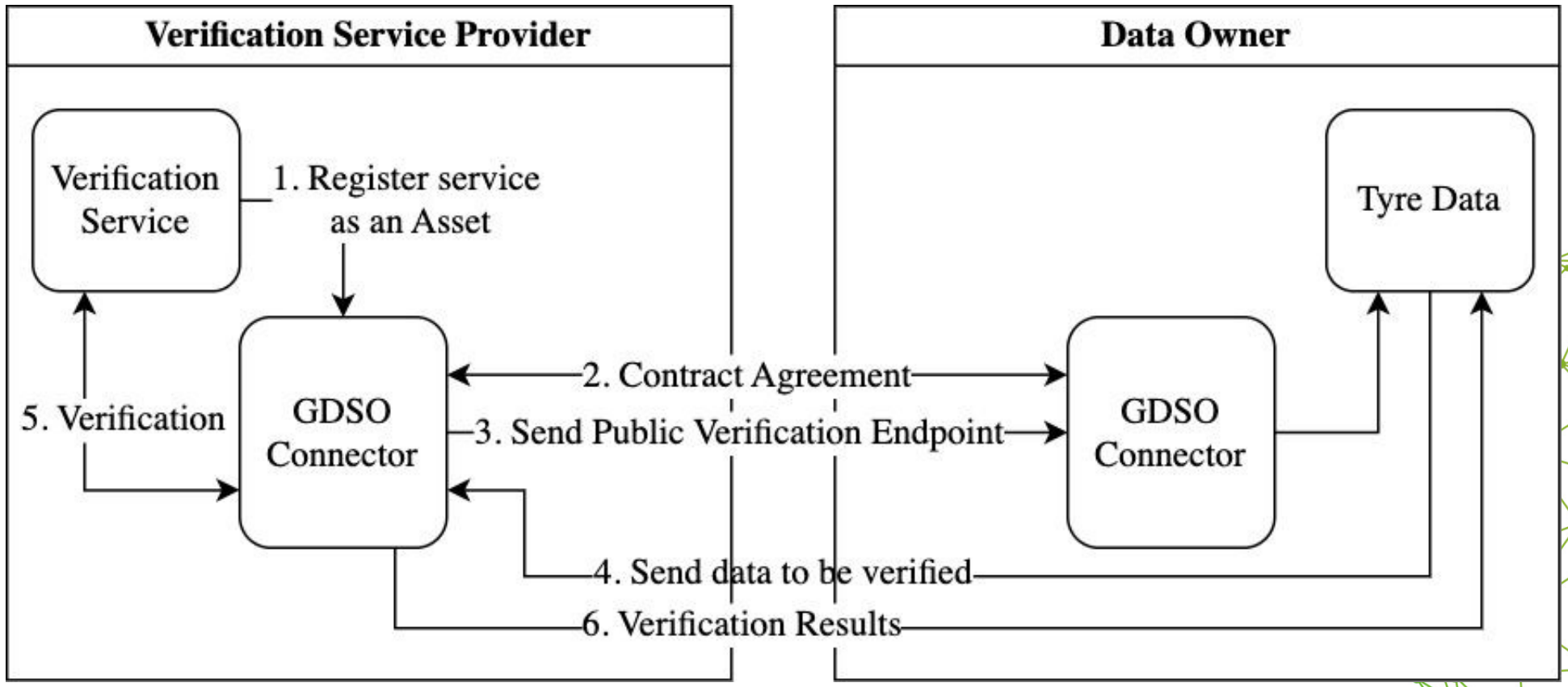
Enabling the Tyre Industry with Sovereign Data Exchange

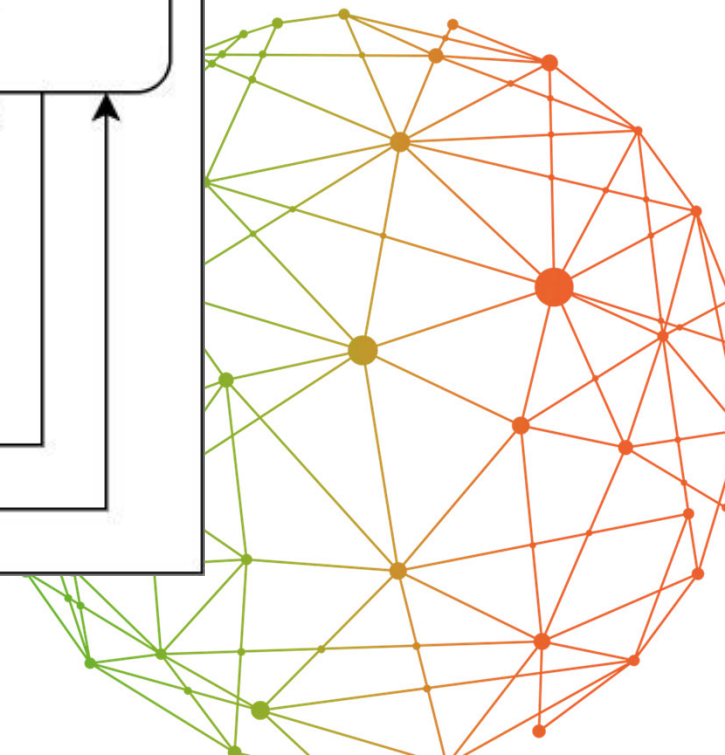




Think-it

Enabling the Tyre Industry with Sovereign Data Exchange





Think-it

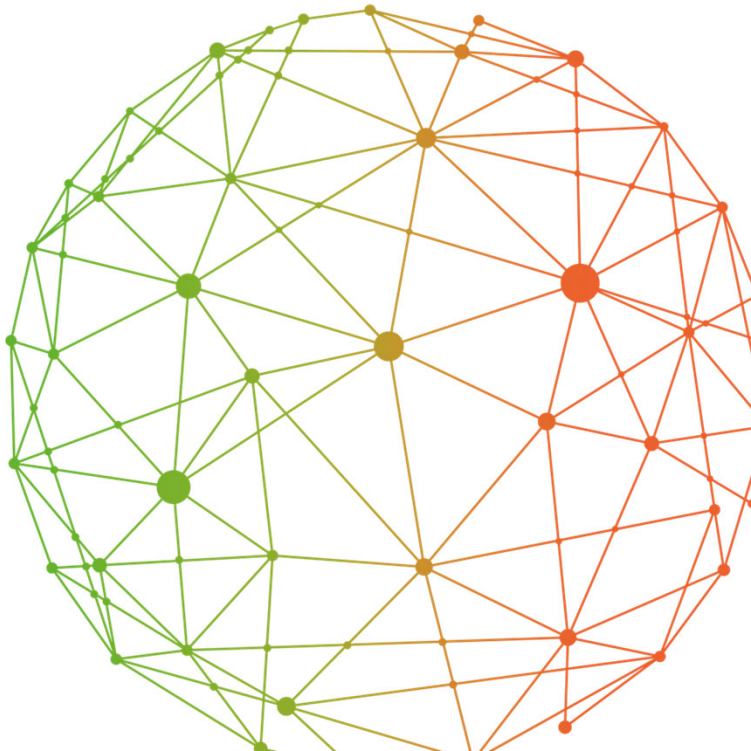
How we're enabling impact with Data Spaces

Interoperability, Identity and Trust

- Eclipse Dataspace Components (EDC)
- GAIA-X and iSHARE Trust Frameworks
- SSI/DID and Decentralized Claims Protocol

Make Data Space Technology Easy

- Data Spaces as a Service (DaaS)
- Connector as a Service (CaaS)
- Suite of OSS SDKs
- Onboarding Partner



Think-it

Data Spaces Symposium

Discussion |
Q&A with data spaces users

Ute Burkhardt, Arunav Mishra & Jürgen Sturm