Sixth

ECLIPSE TRACTUS-X COMMUNITY DAYS

July 02–03, 2026
STUTTGART

ARENA2036 Catena-X Your Automotive Network ECLIPSE Tractus-X™ Where we build dataspaces! ECLIPSE FOUNDATION

SUPPORTED BY: LKS Next

CROSS-DATA-ECOSYSTEM DATA EXCHANGE

July 02–03, 2026

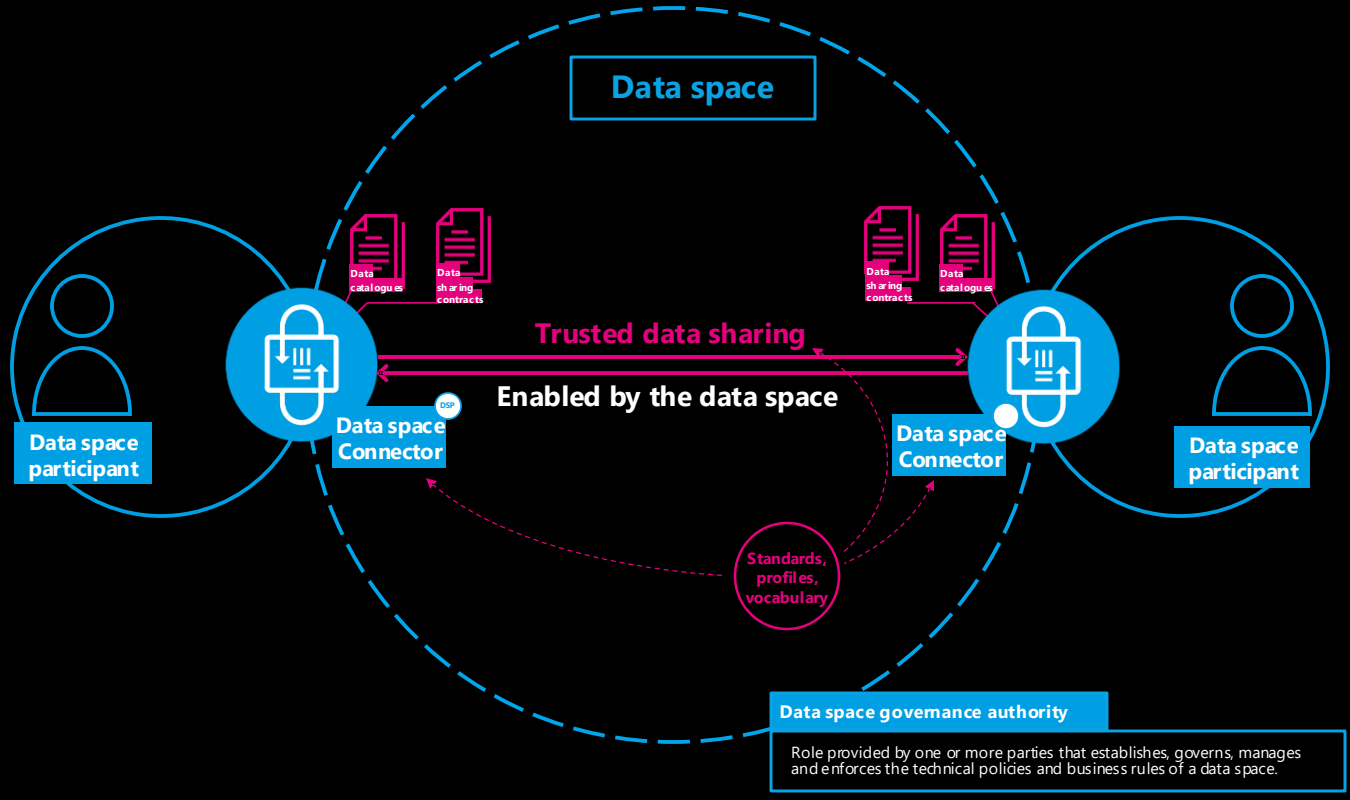
Tobias Kutzler (Fraunhofer IFF)
Ingolf Gehrhardt (HTW Dresden)

CROSS-DATA-ECOSYSTEM DATA EXCHANGE

1. Challenge
2. PCF Use Case Demonstrator: Chem-X, Semiconductor-X, DECIDE4Eco, (Factory-X)
3. Lessons Learned and Outlook

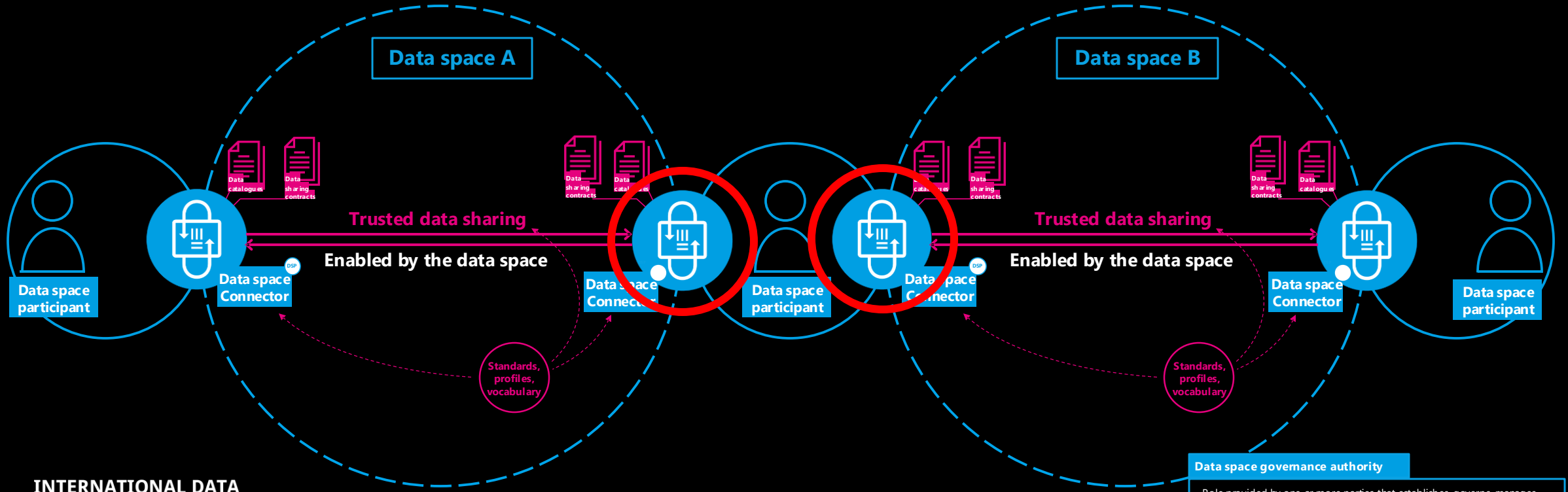
© 2023 Catena-X or a Catena-X affiliate company (Version 3.0 OG)

Connect to a data ecosystem



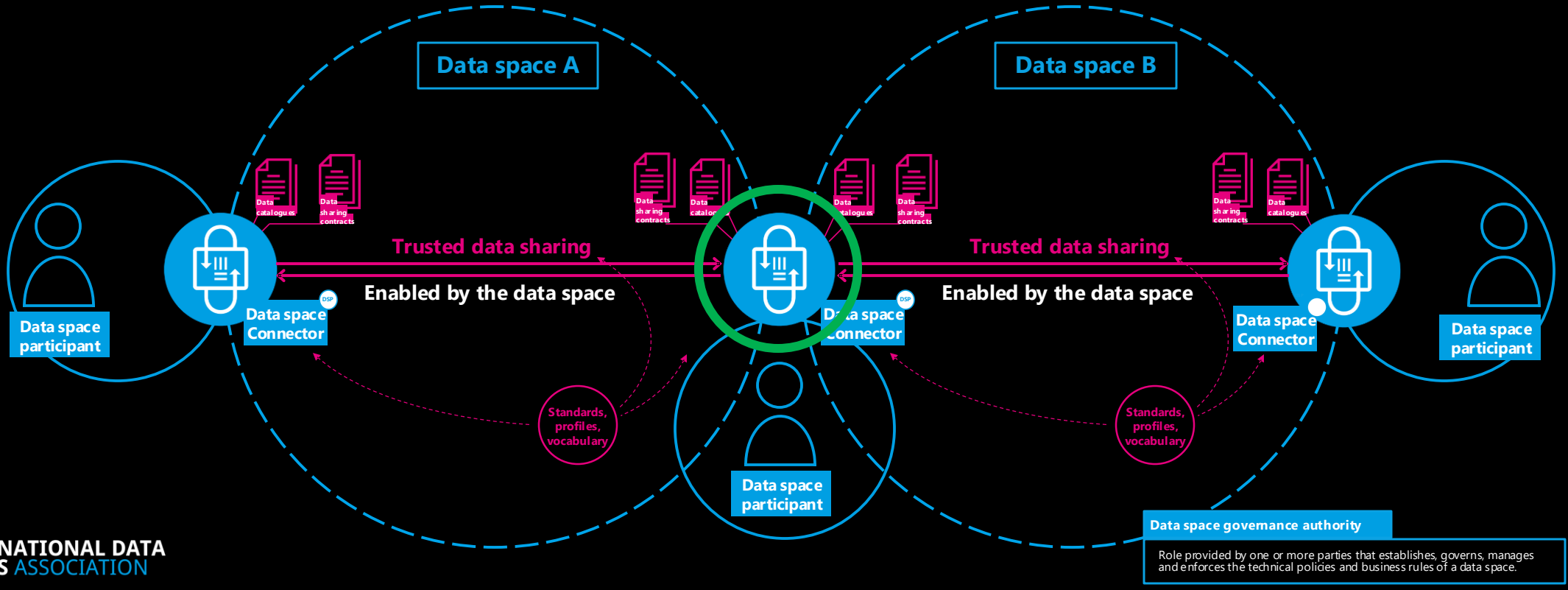
INTERNATIONAL DATA SPACES ASSOCIATION

Connect to multiple data ecosystems



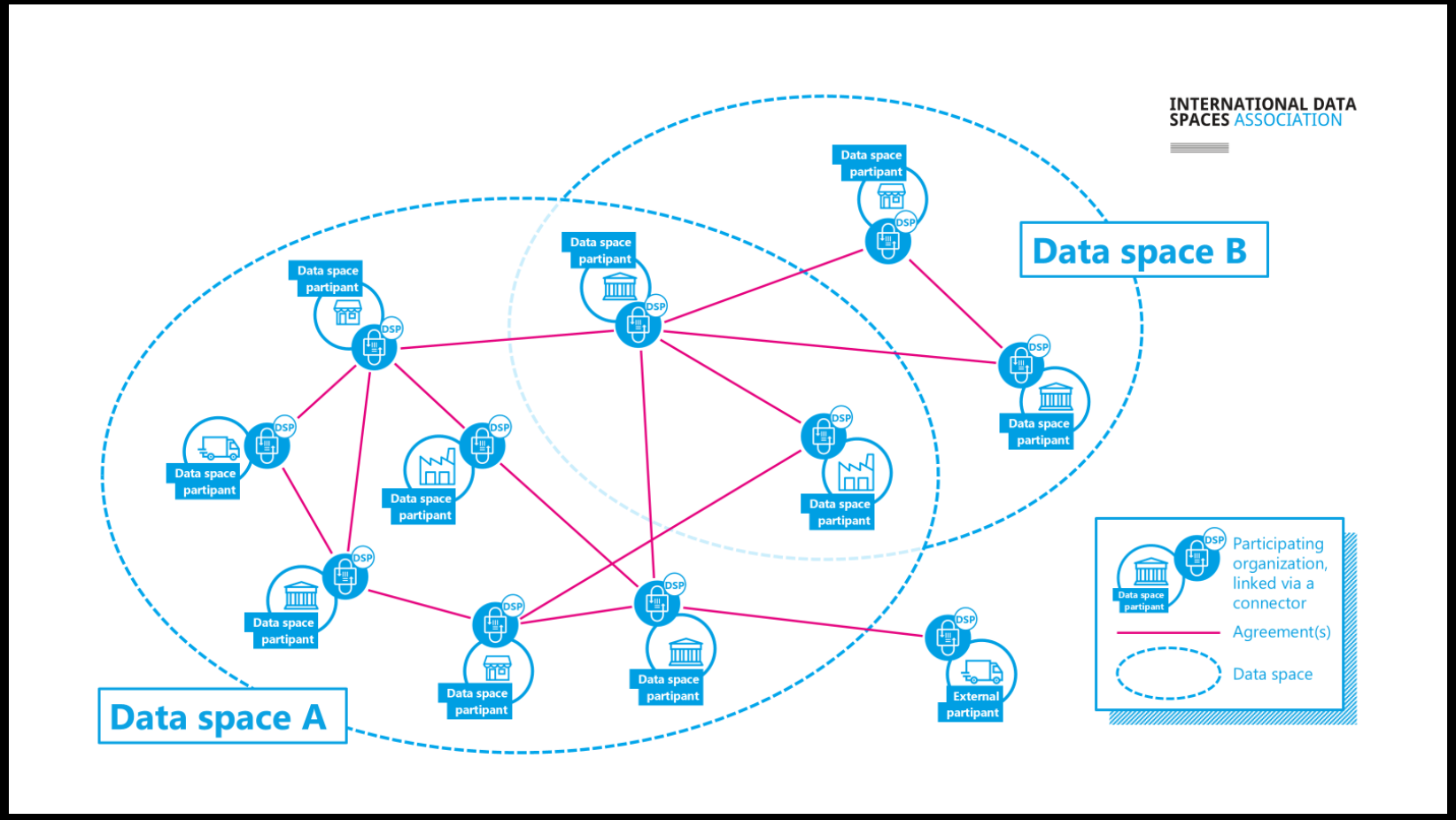
INTERNATIONAL DATA SPACES ASSOCIATION

Connect to multiple data ecosystems



INTERNATIONAL DATA SPACES ASSOCIATION

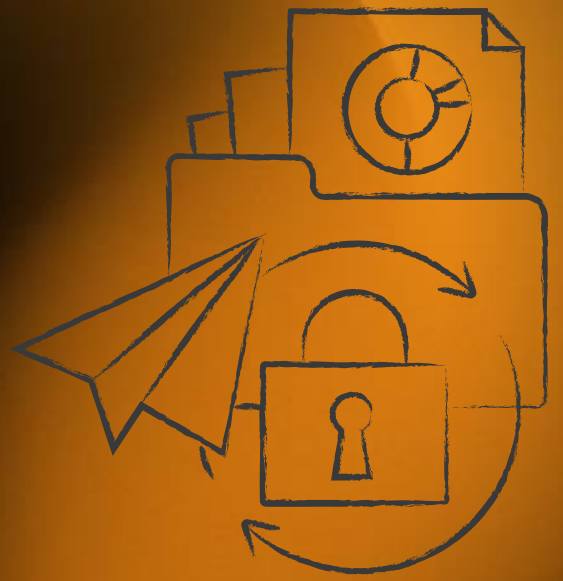
cross ecosystems data exchange



© 2023 Catena-X or a Catena-X affiliate company (Version 3.0 OG)

CHALLENGE

How can we enable companies to leverage seamless, cross-ecosystem data exchange for value adding use cases throughout the multi-stage supply chain?



CROSS DATA ECO SYSTEM SUPPLY CHAIN

CHEM-X

CHEM-X

[1]

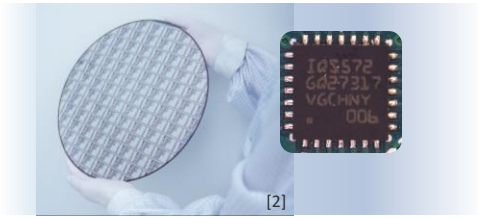
MERCK

BASF
We create chemistry

DMP

Semiconductor-X

SEMICONDUCTOR-X



[2]

Infineon

PCF

Decide4ECO

Decide ECO

PROSTEP integrate the future

SENNHEISER

PCF

FACTORY-X

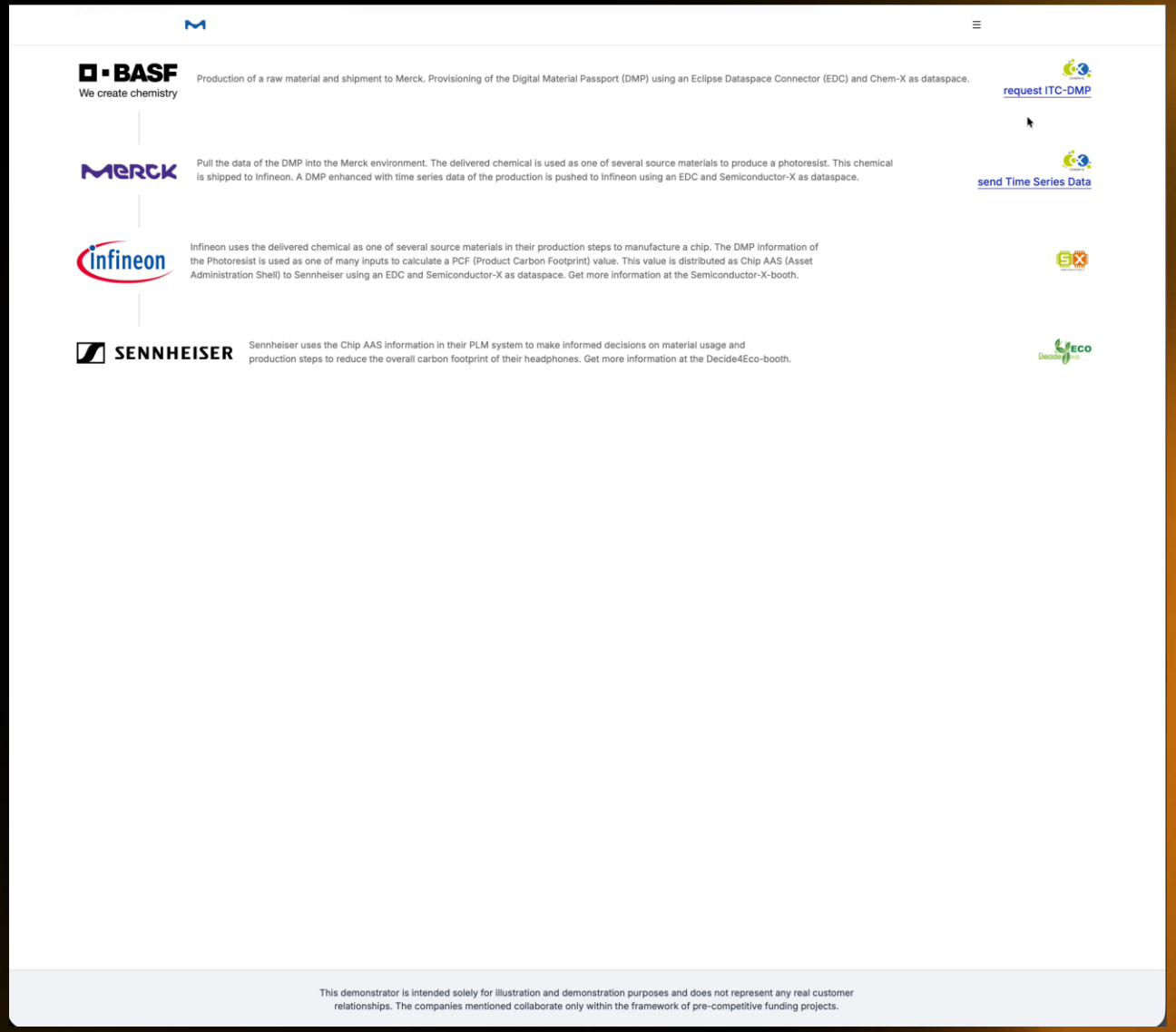
FACTORY-X

[3]

Disclaimer: This demonstrator is intended solely for illustration and demonstration purposes and does not represent any real customer relationships. The companies mentioned collaborate only within the framework of pre-competitive funding projects.

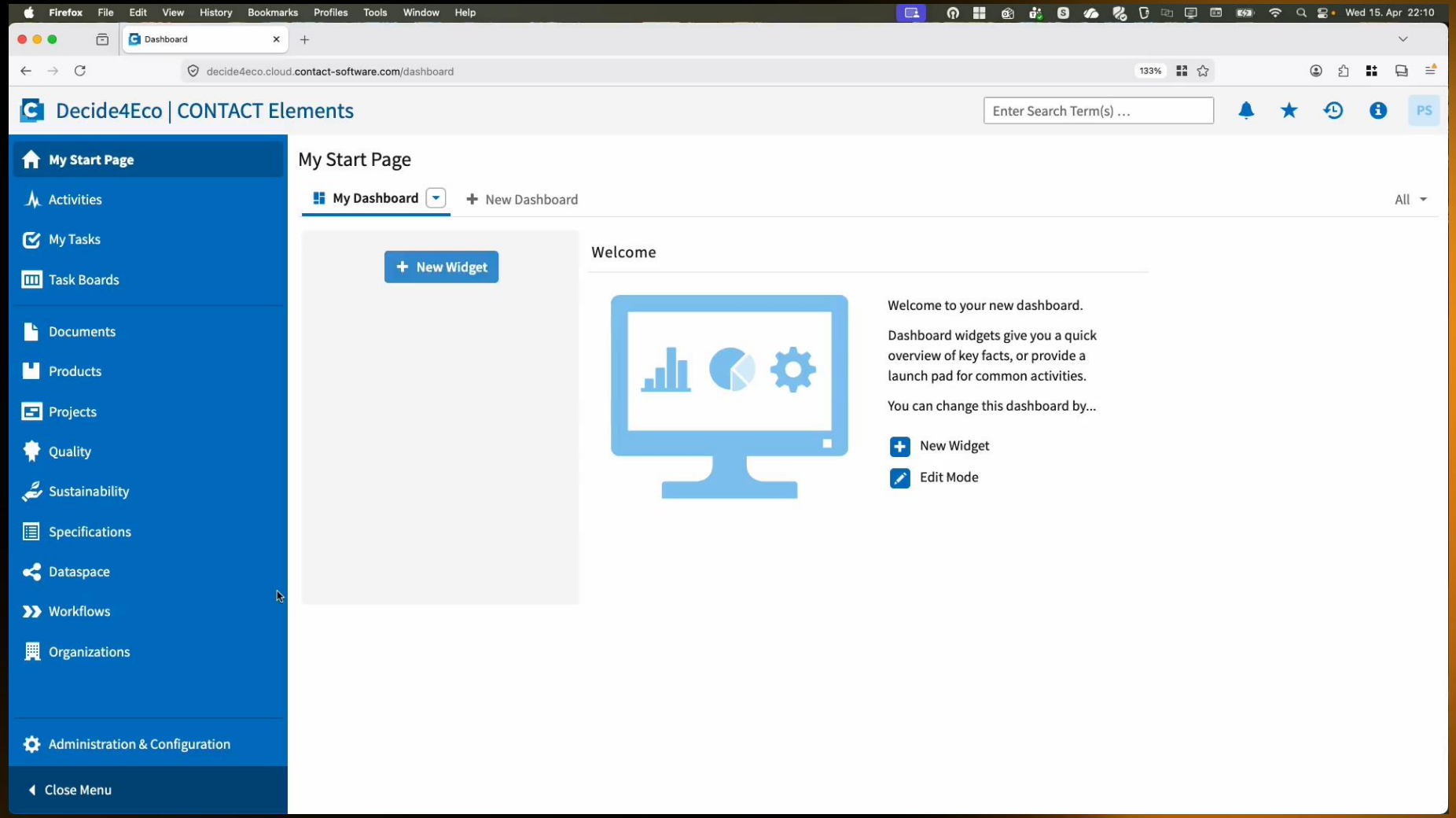
[1] Merck: https://www.merckmillipore.com/DE/de/products/reagents-chemicals-labware/jEyb.qB.xZ4AAAE_X_x3.Lxi,nav
[2] Infineon Technologies AG https://www.despatch.com/blog/infineon-produces-the-worlds-most-advanced-300-mm-gan-wafer/
[3] Foto von Anfal Shamsudeen auf Unsplash

CHEM-X

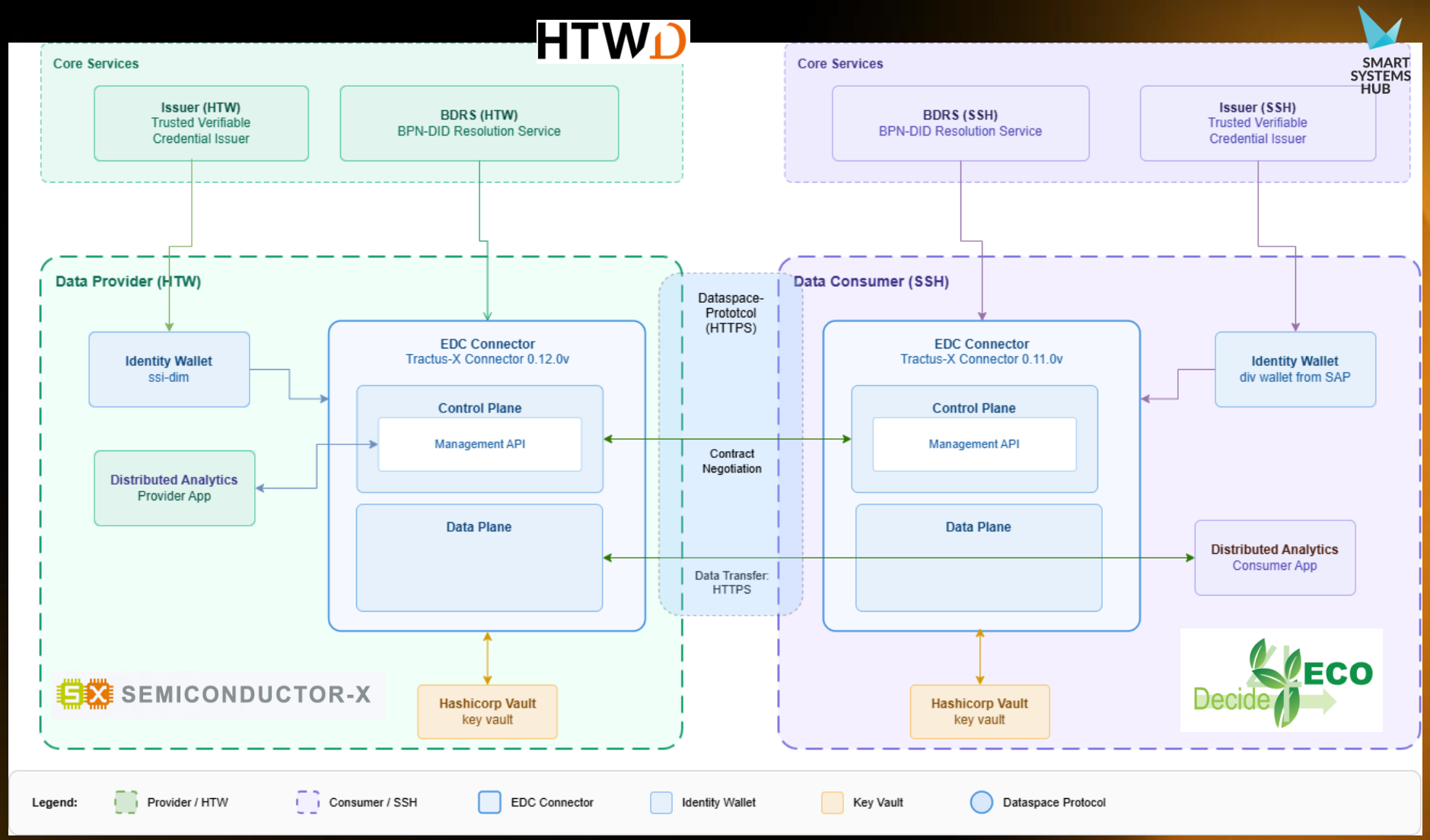

BASF
We create chemistry
Production of a raw material and shipment to Merck. Provisioning of the Digital Material Passport (DMP) using an Eclipse Dataspace Connector (EDC) and Chem-X as dataspace.
request ITC-DMP
MERCK
Pull the data of the DMP into the Merck environment. The delivered chemical is used as one of several source materials to produce a photoresist. This chemical is shipped to Infineon. A DMP enhanced with time series data of the production is pushed to Infineon using an EDC and Semiconductor-X as dataspace.
send Time Series Data
infineon
Infineon uses the delivered chemical as one of several source materials in their production steps to manufacture a chip. The DMP information of the Photoresist is used as one of many inputs to calculate a PCF (Product Carbon Footprint) value. This value is distributed as Chip AAS (Asset Administration Shell) to Sennheiser using an EDC and Semiconductor-X as dataspace. Get more information at the Semiconductor-X-booth.
SENNHEISER
Sennheiser uses the Chip AAS information in their PLM system to make informed decisions on material usage and production steps to reduce the overall carbon footprint of their headphones. Get more information at the Decide4Eco-booth.
This demonstrator is intended solely for illustration and demonstration purposes and does not represent any real customer relationships. The companies mentioned collaborate only within the framework of pre-competitive funding projects.

SEMICONDUCTOR-X

DECIDE4ECO


Firefox File Edit View History Bookmarks Profiles Tools Window Help
Wed 15. Apr 22:10
Dashboard
decide4eco.cloud.contact-software.com/dashboard
133%
Decide4Eco | CONTACT Elements
Enter Search Term(s) …
PS
My Start Page
Activities
My Tasks
Task Boards
Documents
Products
Projects
Quality
Sustainability
Specifications
Dataspace
Workflows
Organizations
Administration & Configuration
Close Menu
My Start Page
My Dashboard
New Dashboard
All
New Widget
Welcome
Welcome to your new dashboard.
Dashboard widgets give you a quick overview of key facts, or provide a launch pad for common activities.
You can change this dashboard by...
New Widget
Edit Mode

HIGH LEVEL ARCHITECTURE



LESSONS LEARNED

- Demo shows a comprehensive, realistic scenario: separate operating companies SSH and HTW — individual customer onboarding, issuance of credentials, different wallets
- Easy access and reduced complexity: companies can participate in various ecosystems using a single EDC Connector
- Goes beyond the current Catena-X standard
- Hands-on experience brings things to life
- Interoperability challenges: EDC flavors, EDC versions, open-source & commercial wallets
- Demo uses currently available components; further developments will require adjustments

OUTLOOK

Necessary steps for the various data ecosystems

- Synchronize BDRS
- Add a trustedIssuer dependency

Final steps

- Cross-Ecosystem Workshop at Tractus-X Days, July 2–3, 2026
- Pull Request in Tractus-X ssi-dim-wallet-stub
- Tractus-X IdentityHub integration
- Docusaurus documentation