Catena-X
The first open and collaborative data ecosystem

June 28, 2024
Catena-X was found … to tackle our industries most pressing issues, together.

- **TRUSTED SUSTAINABILITY**
  - Report Product Carbon Footprint (incl. primary data)
  - Scale Circularity with Product & Battery Passports
  - Environmental & Social Governance

- **RESILIENT SUPPLY-CHAINS**
  - Master Data Services & Certificates
  - Ensure Material Flow with Demand / Capacity Mgt.
    - Short
    - Long-Term

- **COMPLIANT & EFFICIENT PLM**
  - Traceability of Parts & Contain non-compliant parts
  - Live Quality Loops & Analysis
  - Behavior Twins
Industry Need

Access to a Data Driven Value Chain for every partner

Leverage significant cost, value and compliance benefits via trusted and sovereign end to end business processes

Global Automotive Industry Network

275,000 Supplier
1,000,000+ Locations
Billions Parts / Day
Catena-X Value Proposition

Provide a trusted, compliant, global and interoperable environment for the industry, to create and utilize data driven value chains for dedicated business processes.

Catena-X offering

Solve tough industry problems via radical collaboration in BIZ / DEV / OPS.

- Trusted Identity
- Trusted Data Exchange
- Trusted App / Services
- Trusted Governance
- Business KITs
- Interoperable Services
- onBoarding and scalability from SME to Large Corp.
Blueprint & foundation of each Business Solution.

One dedicated KIT per Business Problem

Publicly available under: [https://eclipse-tractus.github.io/Kits](https://eclipse-tractus.github.io/Kits)

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What we’ve created

CX KITs enable an interoperable multi vendor ecosystem.

Today’s Structure

End-Customer Facing

Example: Portfolio of D0x / PCF Apps & Services

- Quality
- Traceability
- Behavior
- Master Data
- PCF / COP
- Circularity
- Product
- Pass
- DCM + many more

listing of CX certified and therefore interoperable applications & services

CX Business KITs
open source foundation / standards for each business domain

- Offers dedicated business solutions via certified market places
- Connect your company to the CX data space

End-Customer Facing

Cofinity-X

more to come

onBoarding & Marketplace

shared industry network foundation

CX Operating System KIT
open source foundation for the data space incl. legal / policy framework

- Connector (Enablement Services)
- Core Services
- Legal / Compliance Framework + many more

Marketplace Offering
licensable and interoperable apps & services

Operating Environment
onBoarding, Marketplaces, Enablement Services

- Core Services
- Legal / Policy Framework
- Conformity Assessment Body

- 109x Standards
- 19x KITs
- 1x Operating Model
- 1x Gaia-X compliant Operating System
- 1x Core Service Provider
- 1x Legal / Policy Framework
- 1x Conformity Assessment Body

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Eclipse Data Space Connector as a key building block.

- Data is only shared directly between partners. No central data storage.
- Data sovereignty and a strong open source foundation is a key for trust.
- The EDC can become a cross industry standard for data exchange.
- The EDC integrates into the individual IT landscapes.
- The EDC bundles all functionality required for trustful data exchange: Offering, finding and exchanging data, defining access policies, negotiating usage policies.
Create standards and tools to capture, compare, exchange, calculate and verify Product Carbon Footprint (PCF).

Example Use Case „De-Carbonization“

**Measure:** Capture GHG emissions data based on real processes and site data

**Reduce:** define reduction measures in the n-tier chain

**Report:** Efficient and credible reporting of PCF values and achieved reductions
Circular Economy

**Fast Facts**

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<th>Value</th>
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<td>100 billion tons of material resources consumed annually</td>
<td>100 billion</td>
</tr>
<tr>
<td>&lt; 9% of resources are recycled or reused</td>
<td>&lt; 9%</td>
</tr>
<tr>
<td>~ 30% secondary material ratio per vehicle</td>
<td>~ 30%</td>
</tr>
<tr>
<td>$4 Trillion demand for battery materials up to 2050</td>
<td>$4 Trillion</td>
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<tr>
<td>&gt;30,000 to be connected industry partners (to close loops)</td>
<td>&gt;30,000</td>
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**Catena-X Standards & Artifacts**

Connect partners, streamline flow of information and create solution portfolio to enable scalable value derivation

- Trusted material accounts manage material flow and reduce costs
- Digital product passports capture and carry rel. information end to end
- Industrie connectors allow exchange of data and material with other sectors
- Circularity dashboards (SRQ / CO₂) recommend optimal R-Strategies
- Network builder completes the value chain by connecting partners
- Material market places create a 2nd material supply chain & allow prediction of supply scenarios

**Other Industries**

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Example

Product Passport (DPP)
Sustainability is one, but not the only reason for a new operating model.

None of us can solve these industry challenges alone.

In order to succeed, we all eventually have to shift our activities into an interoperable, collaborative, trusted and self-sovereign business ecosystem.
Starting and scaling the Catena-X data ecosystem

It only works with a global and collaborative approach.

KICK START - TEAM to build and launch the initial foundation; all interest groups are represented

Implementation of the CX HUB-CONCEPT empowers regional adoption and ensures flow of data across regions

28 initial development partner started in 08 / 2021

186 global partner in Catena-X association (07/2024)

examples of international Catena-X members; for a complete list click here

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The association Catena-X Automotive Network e.V.

If you want to...

... build & steer the initiative and shape e.g. use cases

... join the governance body

... discuss and shape standards and normative documents

... offer certification services in the ecosystem

... support the release / life cycle management

... operating a Clearing House Service in the ecosystem

... want to be part of a future-orientated community of innovators and get valuable insights

Join the association and create, develop and shape the automotive industry of tomorrow!
Questions?
Get in touch with us!

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