

# **Catena-X** **Your Automotive Network** - General Introduction -

Catena-X Association  
18. May 2025

- Released -



Our automotive business processes require an update of the industry operating model



# Motivation: Keeping the “license to operate and grow”



## Trusted Sustainability

Why?

- Report validated PCF (CO<sub>2e</sub>)
- Create Product / Battery Passports
- Execute Supply Chain Due Diligence
- Cover regional variance
- ...



## Resilient Supply Chains

- Digital ID: Business Partner
- Receive Up to date Location Certificates, Tariffs
- Global Supply Performance
- Optimized Inventory / Logistics Mgt.
- ...



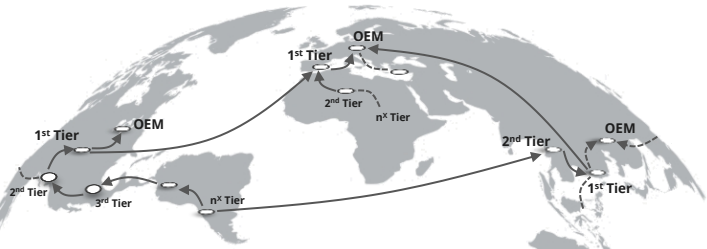
## Effective Quality / PLM Mgt.

- Trace parts
- Live quality loops
- Behavior Twins
- ...

+++ Stay & scale within budget & leverage cross domain synergies +++  
+++ Protect IP +++ Cyber-Security +++  
+++ Multi Tier Collaboration Capability +++

→ It is an industry and digital challenge ←

The global automotive industry  
> 275k companies    > 1m locations    >bn of parts / day

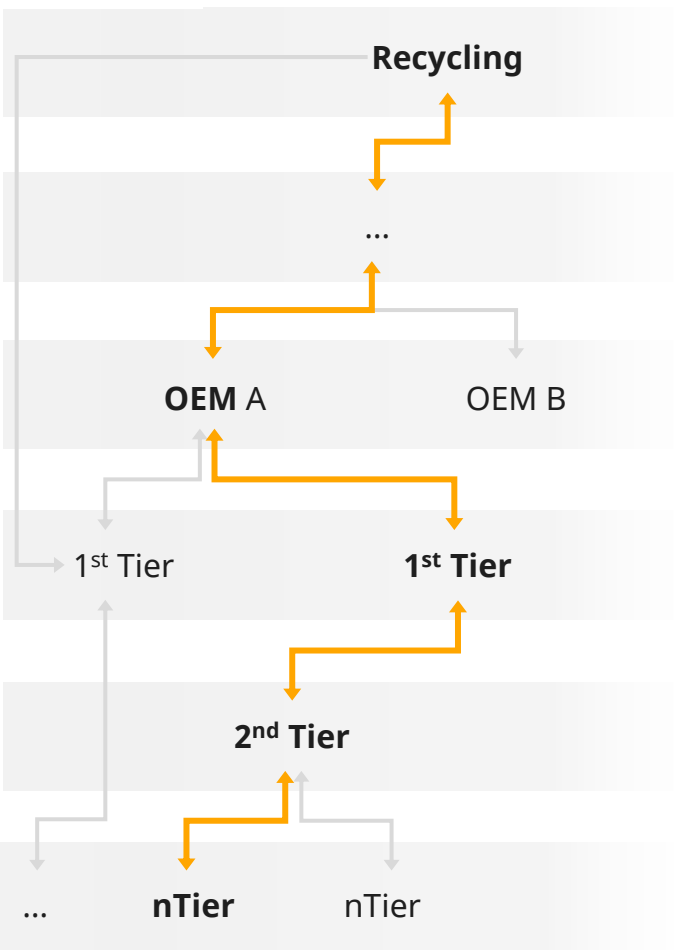




# Four main alternatives

## Automotive Value Chain

- Use Case X -



Catena-X

**Industry standards**  
create interoperability  
between partners

- + Freedom of choice (vendors)
- + Cyber / IP Security
- + Trust / verification
- + Anti Trust clearance
- + Cross domain benefits
- + Scalability in business
- Significant change
- Initial complexity
- Every company covers own costs

### Today's Alternative 1

**Central Data Base**  
for all industry partners

- + No cost for supplier
- + Established / available
- Lock In
- Trust / verification
- Data protection / IP
- Cyber-Security
- Business process readiness
- Cross domain benefits

### Today's Alternative 2

**One IT Provider**  
for all partners of the  
same value chain

- + Trust / verification
- + One solution provider
- Freedom of choice / Anti Trust Clearance
- Enforce usage (nTier)
- Scalability in business
- Cross domain benefits

### Today's Alternative 3

**Every Partner has its  
own solution**

- + Freedom of choice
- + Short term costs
- Trust / verification
- Multi tier capability
- Scalability
- Overall costs
- Data protection / IP



## Mission and USP



Catena-X is the first globally trusted and collaborative data ecosystem for the automotive industry

- We are the first to offer multi-tier collaboration.
- We reduce costs and create synergies for business and IT.
- We are successful via radical collaboration.



Catena-X is works via radical collaboration

# The 1<sup>st</sup> trusted and multi-tier business collaboration network is LIVE!

## Layer 1: Build & Standardize Industry re-representation

- OEM / supplier / recycler / SME / research
- Solution- / service provider / transfer org.



overall:

Global Industry Representation

## Layer 2: Adopt, Scale & Govern Global re-representation

- Local hubs (China, France, Spain, US, ..)
- Regional alliances (e.g. Ouranos)
- Productive Operations (e.g. Cofinity-X)



overall:

~ pot. 7,000 companies addressed

## Layer 3: Transfer X-Industry re-representation

- comparability & interoperability
- re-use / synergies

selected industry Eco-Systems Partners



Temp. guidance-/ Collaboration Partner (when needed)



Trusted & Interoperable Data Exchange: **Governed by the industry**



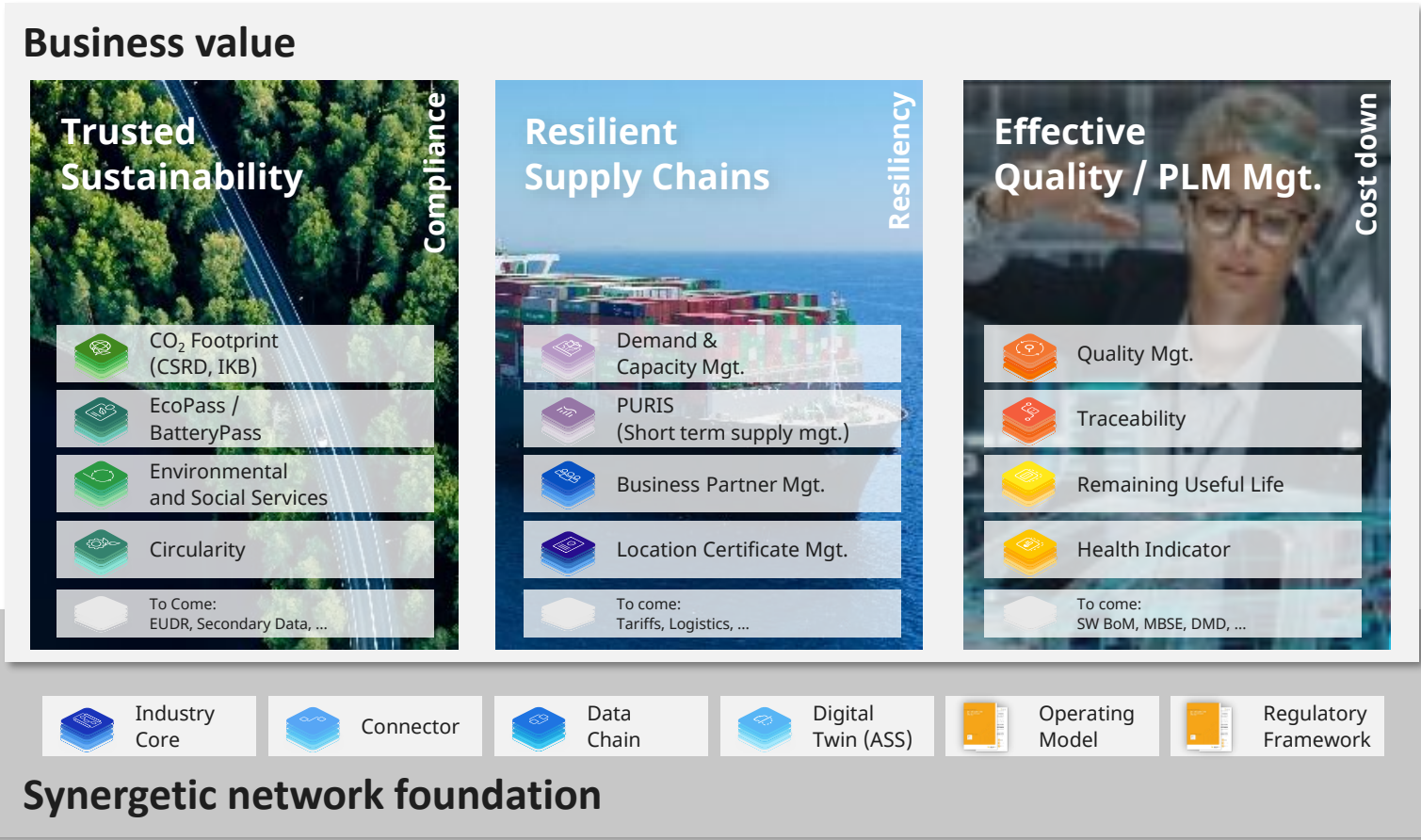
# Our KITs tackle some of the toughest industry problems (Status 04/2025)

The solutions we certify for each business area are built on a shared technological foundation (→ aka KITs) to reduce costs and scale your IT and business processes, globally.

**Set of standards / artifacts to solve a dedicated business problem:**

- Semantics
- Business Logic
  - Policies
  - Interfaces
- Reference Impl.
- etc.

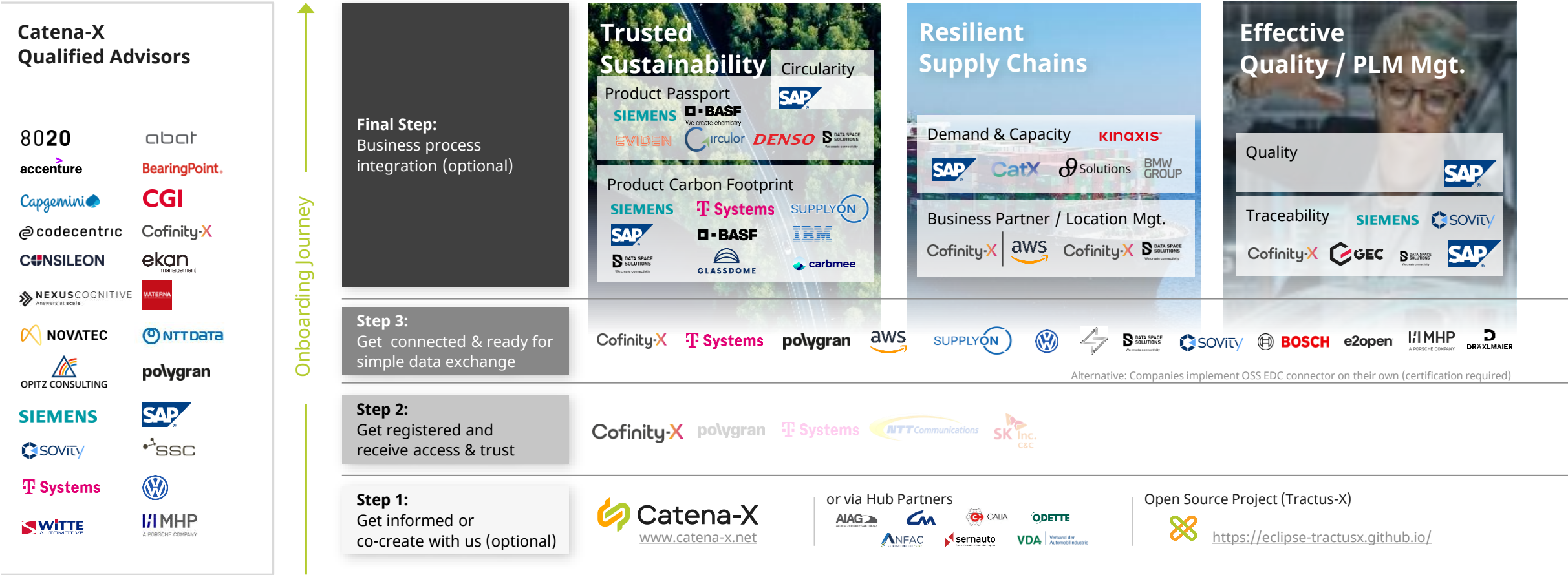
 **KITs**



→ for IT Dev/Ops value benefits, see slide 10



# 3 steps to value creation (05/2025)








# Selected success stories

Master product carbon footprint calculation



**Leading the way in effective supply chain decarbonization through standardized PCF data sharing**

To meet the need for standardised sustainability practices, WITTE Automotive has implemented advanced solutions with SAP and can calculate its PCF according to the Catena-X framework.

[Learn more](#)

**3-5x**  
more efficient calculation\* compared to manual, excel-based method (\*with interface to ERP system)

**+10T €**  
Savings per PCF calculation compared to hiring external calculation experts

- Automated data flow from the S/4HANA ERP system
- SAP Sustainability Data Exchange enables seamless management and exchange of PCF data

Improve quality performance between OEM / Supplier



**Suppliers transform quality**

Management shows how collaboration and significant cost benefits along the supply

**4 months**  
Earlier detection of errors through data exchange (on average)

**5 weeks**  
until the first go-live after successful integration of new components instead of several months (on average)

- Cost savings in the low single-digit million range possible
- Suspicious cases can be narrowed down considerably, saving resources

Boost digital readiness of a SME




**51 %**  
Faster OEE calculation

**15 %**  
less energy loss

- Faster fault detection and targeted process optimisation
- 100% transparency of energy use in production
- Secure and standardised data exchange with OEMs

Build product passport solutions together



Our solution Partners About

Partners:

ATL Henkel SIEMENS VOLKSWAGEN GROUP

**PATHERA**  
WHERE DATA LEADS







# 4x architectural guardrails define our eco-system



Core Value #1

## Trusted Digital Identities

Verified and unique company identities

**Know for sure with whom you are dealing with in the digital world**



Core Value #2

## Interoperability

Open-source based standards / KITs.

**No Lock-In. Choose the provider that fits you best to scale your business**



Core Value #3

## Self-Sovereignty

Decentral architecture and protocols

**Stay in control over your data / IP and take Cyber-Security serious**



Core Value #4

## Industry Governance

One global operating model and framework

**Rely on what's best for all not just one**

We believe within our global automotive industry, we only can create a true multi-tier collaboration when we empower existing players and solution providers. We believe that trust in your partners and control over your data are decisive in a digital world.

Hence, we created an ecosystem from the industry for the industry

How to start? We and our market activation team are here to help you.

Contact: [info@catena-x.net](mailto:info@catena-x.net)



**Industry task 2025: „Road to 1.000+“**

Supported and boosted by regional hubs & industry associations



**Step 1:**

Inform yourself, setup your team and create your roadmap

**Readiness Booster Program**

Co-sponsored training, guidance and action plan to help your company

Why? Join the industry transformation Now!

**Step 2:**

Register with Catena-X  
→ receive business partner number and verified digital ID

**Starter foundation**

- Connector
- Business Partner Mgt.
- Location Certificate Mgt.
- Traceability light

Why? Proof of value within short period of time via scalable (shared) industry services

**Step 3a:**

Technical Readiness and Industry Baseline  
→ Create scalable / re-usable foundation for industry

**Continue individual company journey with Catena-X**

**Step 3b:**  
PCF Reporting + DCM

**Company A**



**Step 3b:**  
PCF Reporting

**Company B**



**Step 3b:**  
PCF Reporting + Quality

**Company C**



**Step 3b:**  
PURIS + Battery Pass

**Company ...**



**Target:**  
Level the playing field for the industry  
→ multi-tier collaboration!