



THE FIRST OPEN AND COLLABORATIVE DATA ECOSYSTEM

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Catena-X Consortia: Joint Lead for Team Transfer
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Introduction



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Joint Lead for
Transfer & Communication
Team

BMW AG
Onboarding and
Communication



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Goals



To work out the principles of a data ecosystem.



To get an idea of the technical basics.



To create an understanding for the possibilities of Catena-X.



1. Catena-X Ecosystem



The Automotive Industry Faces Multiple Challenges that Affect All Participants along the Global Value Chains.

How Germany's Supply Chain Act could affect your business.

Transparency, simplicity are key to healthy supply chain, auto excess say
The supply chain crisis that roiled automakers and suppliers during the COVID-19 pandemic provided costly lessons about pinpointing vulnerabilities, increasing visibility and improving communication across tiers. June 12, 2023 01:49 PM

Carmakers and tier ones need better supply chain alignment

If the semiconductor shortage taught the automotive sector anything, it is that closer collaboration between carmakers and their suppliers, not just at the tier one level, level, is crucial to mitigate disruption to the supply chain. SUPPLY CHAIN MANAGEMENT By Marcus Williams | 27 March 2023



Evolution of the automotive sector – data privacy & cyber security.

Financier Worldwide Magazine August 2022 | TALKINGPOINT | SECTOR ANALYSIS

It's not just the chip shortage – other supply chain disruptions are wrecking havoc on automakers and helping keep prices high. Alexia St. John Feb 21, 2023, 7:13 PM GMT+1

Another rough year may be ahead for auto suppliers Suppliers have been through three years of challenges and setbacks. They might be in for a fourth. January 25, 2023 10:31 AM

Resilient Supply Chains: Driving Automotive Industry Growth through Sustainable Practices and Risk Management

As OEMs recognize the necessity for innovation, the responsibility to develop new technologies permeates throughout the entire automotive supply chain. By NK Modi, ED, Minda Corporation Limited | 25 May 2023



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BLOG
ALIGNING THE U.S. GREENHOUSE GAS STANDARD FOR CARS AND LIGHT TRUCKS WITH THE PARIS CLIMATE AGREEMENT
DECEMBER 19, 2022 | By: Peter Slowik and Josh Miller

Daimler und Porsche verpflichten Lieferanten auf Klimaziele.

Die Autobauer haben ihre Zulieferer aufgefordert, bis 2039 klimaneutral zu produzieren. Die große Mehrheit leistet dem Folge. WirtschaftsWoche 28. Oktober 2021

Reducing Car's Climate Change Impact With a 'Life Cycle' Approach. Goldman Sachs Publishing 21 Jun 2020

OUR ENVIRONMENT WAS DOMINATED BY UNEXPECTED EVENTS AND PROFOUND CHALLENGES - EACH WITH THE POTENTIAL TO JEOPARDISE OUR GOALS:

- supply challenges for semiconductors and wiring harnesses;
- bottlenecks in vehicle and parts logistics;
- pandemic-related closures in China;
- rising prices for commodities, materials and energy;
- geopolitical tensions.

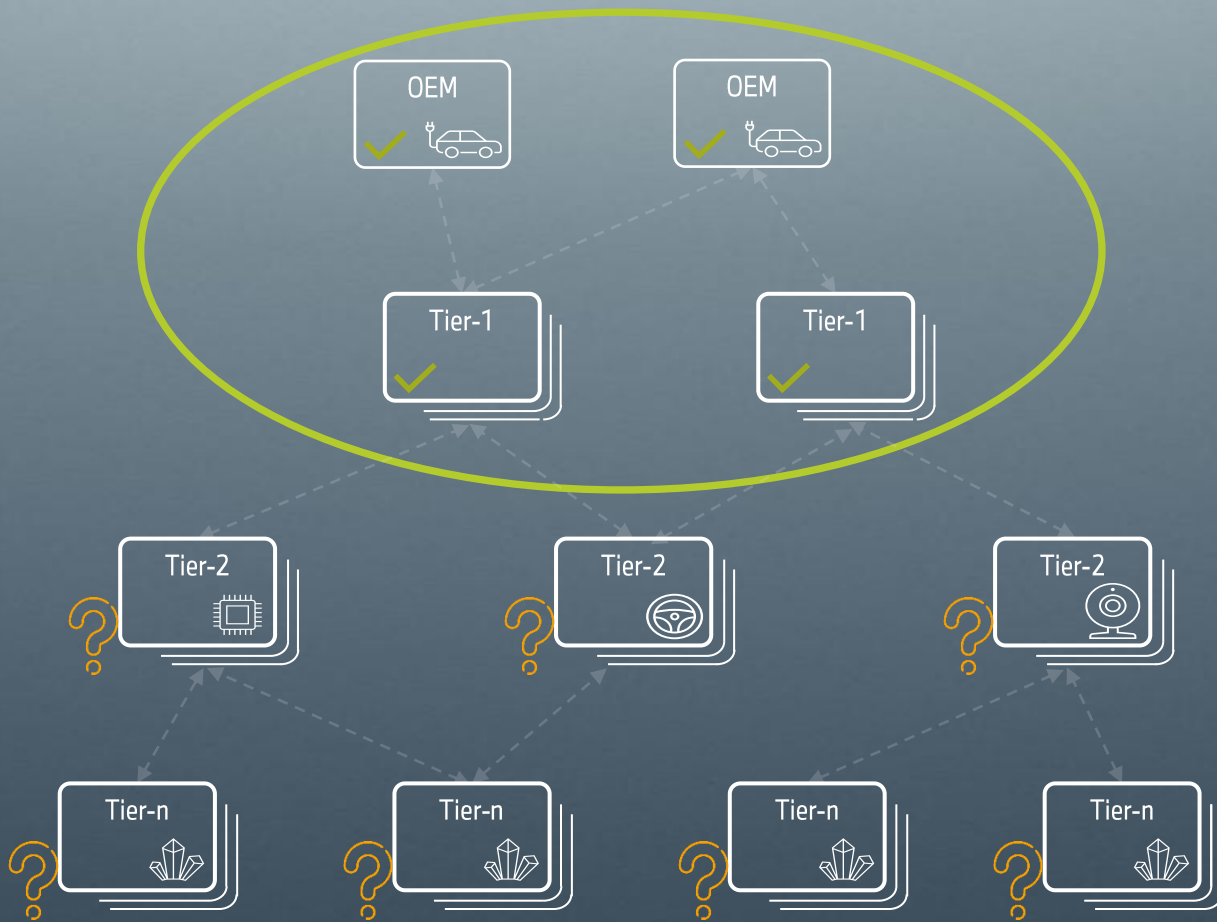
OLIVER ZIPSE
CEO, BMW Group
May 11, 2023

Why suppliers are critical to reducing the auto industry's carbon footprint

The auto industry is a major contributor to climate change. Automakers' plans to reduce the industry's carbon footprint will only work if they can get suppliers to come along.



The Way how We Interact in the Value Chain Does Not Match the Scope of Our Industries Must-Win Battles.



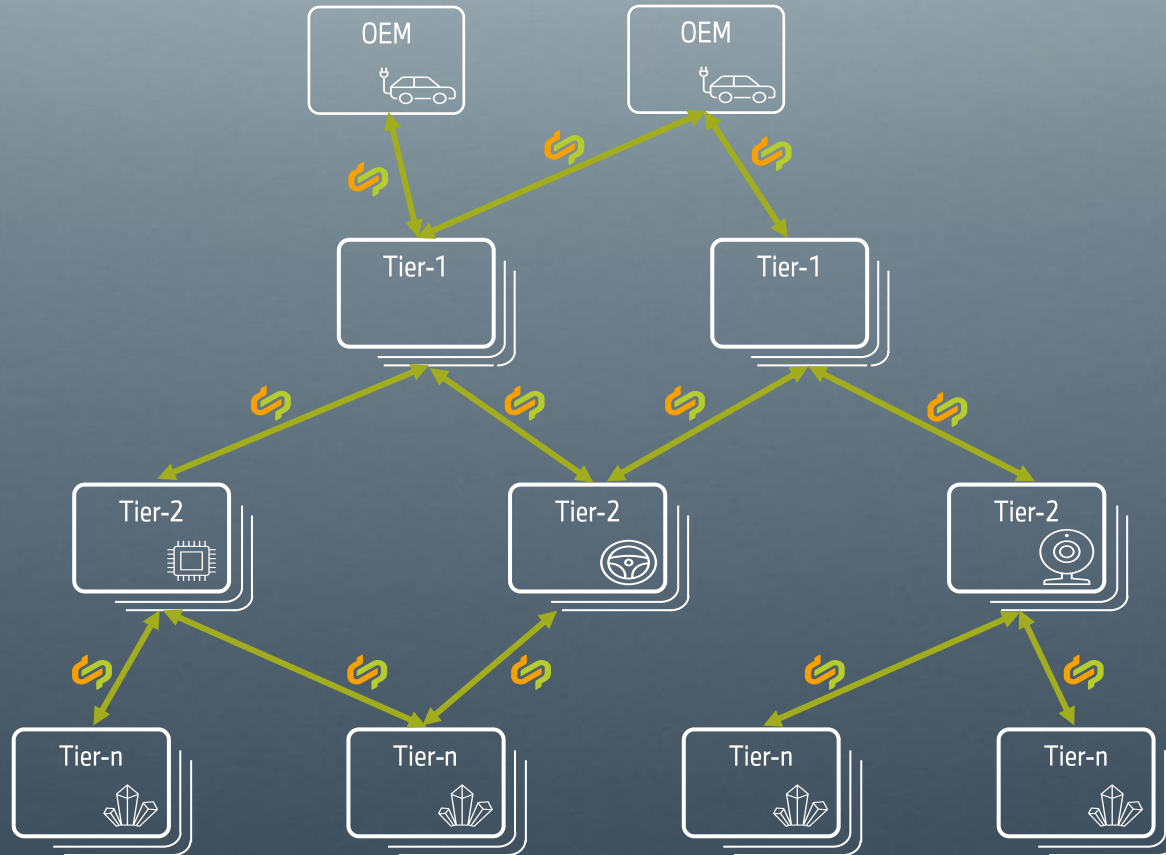
Must-win battles in the automotive value chains

- Supply chain resilience on a global scale
- Increasing product complexity and zero-failure requirements
- Complying with accelerating regulatory demands
- Fulfilling sustainability targets
- Scaling future-proof business models and digitalization

We need to introduce a scalable approach to tackle the industries most pressing challenges and integrate all 270,000+ automotive Tier-n suppliers.



With Catena-X We Set the Focus Right and Create an Ecosystem along the Whole Value Chains.



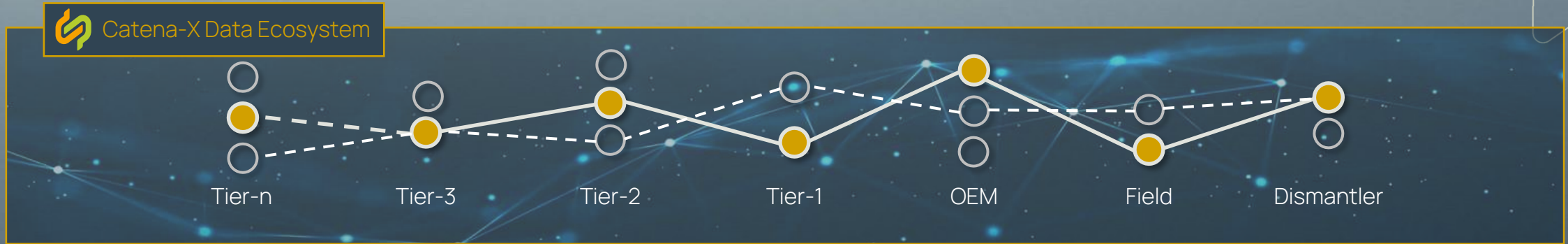
Must-win battles in the automotive value chains

- Supply chain resilience on a global scale ✓
- Increasing product complexity and zero-failure requirements ✓
- Complying with accelerating regulatory demands ✓
- Fulfilling sustainability targets ✓
- Scaling future-proof business models and digitalization ✓

The industry's challenges cannot be solved by a single player. With Catena-X we face them together by creating an open and collaborative data ecosystem for the entire industry.



Catena-X Seeks to Develop an Open, Collaborative Ecosystem With Strong Governing Principles.



#DataSovereignty

Decide about the use of your data



#DataSecurity

Data exchange via secure connector



#Interoperability

Common standards allow different systems to work together



#FreedomOfContract

Collaborate with partners of choice only



#GovernanceFramework

Unified policies, authorizations and monitoring

Catena-X is not a database to store and collect data but an open ecosystem to share data in a better way – standardized, secure and simple.

FROM TIER-N TO OEM
TO RECYCLER AND BACK

Benefits and Savings >> Efforts and Costs

READY FOR MUST-HAVE REGULATIONS

- ✓ Speedboat solution for:
 - ✓ Product Carbon Footprint (CO2)
 - ✓ Product & Battery Passes
 - ✓ ESG & LkSG
- ✓ Common rulebooks defined

STRONG PRINCIPLES

- ✓ Your data is safe
- ✓ Your data stays with you
- ✓ You decide who can see your data
- ✓ One common language

REDUCE INTERFACES

- ✓ One platform, not 100s of interfaces with customers and suppliers
- ✓ You choose your software based on your business needs
- ✓ All software is certified and works with each other

WHY CATENA-X?

„THE FIRST OPEN AND COLLABORATIVE
DATA ECOSYSTEM“

10 PRACTICAL USE CASES

- ✓ E.g. narrow down recalls in hours rather than weeks (Traceability)
- ✓ E.g. optimize your capacity planning throughout the n-tier chain (DCM)

DECENTRAL
PEER TO PEER
DATA EXCHANGE

Starting point
Germany, ready
to go worldwide

170 members
in the
association
(Catena-X
e.V.)

OPEN ECOSYSTEM

- ✓ Change the mindset of the entire industry
- ✓ Join the association and define standards

RECEIVE DATA

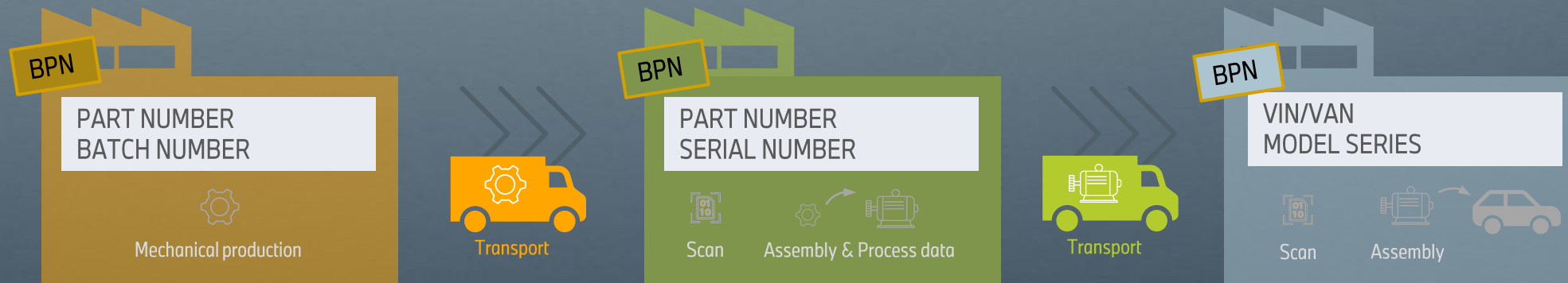
- ✓ „Radical“ collaboration
- ✓ Get customer data
- ✓ Watch component performance
- ✓ Speed up root cause analysis
- ✓ Optimize your designs & quality



2. Catena-X Chainbuilding

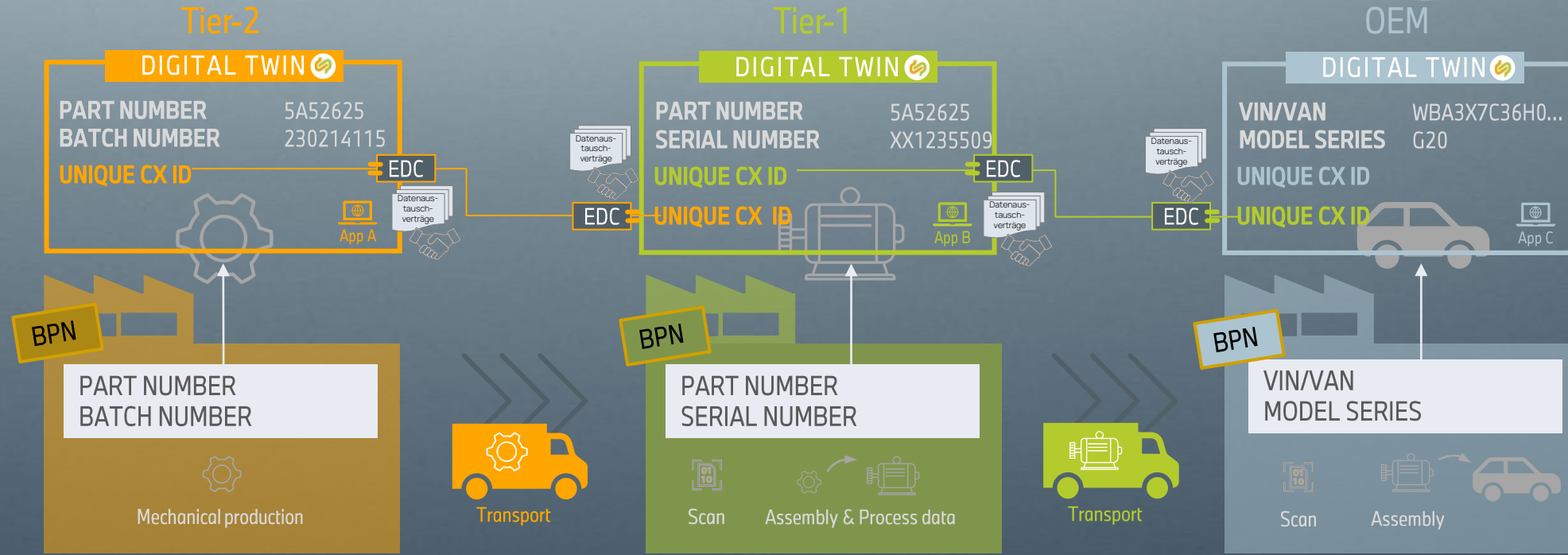


Catena-X Ensures the Upkeep of the Principles through Specially Developed Secure Software Components.








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Catena-X functionality

 **DIGITAL TWIN**
 Digital copy of the physical product containing all relevant information

 **CONNECTOR**
 Central communication component comprising principles, standards and protocols

 **1 up 1 down principle**
 Data is only exchanged between direct partners along the supply chain

Takeaways



Increasing Challenges / data requirements make it necessary to **work in networks** rather than peer to peer.



Catena-X has **integrated Lessons Learned** from other platform solutions into the design (e.g. data sovereignty, interoperability, open source).



The principle of Catena-X is **transferable as a blueprint**, as it is not limited to specific data or usecases.



Visit us:



www.catena-x.net



Thank You!