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# Catena-X



THE FIRST OPEN AND COLLABORATIVE DATA ECOSYSTEM

Last Revision

31.07.23

**VERSION 3.0**



# Our motivation

Collaborative, must win-battles for the global automotive industry

SUPPLY RESILIENCY



“Plan and ensure material flow and availability across multiple value chain steps”

SUSTAINABILITY



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

SYSTEMATIC COVERAGE



“Create interoperability standards and SME readiness for digitalization of processes”

COST OF INNOVATION



“Boost innovation and adoption by sharing network foundation & services built upon open source”

and “close the loops for circularity”

→ No market player, neither an OEM nor supplier nor outfitter can solve these problems on its own ←



# Taking the right turn

Towards, we (the industry) share mutual and pressing issues which we only can solve together.

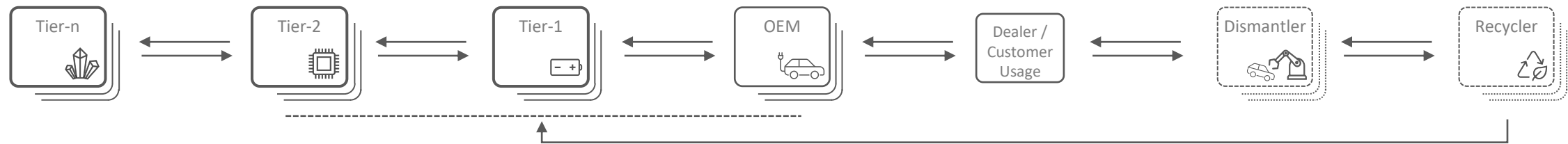




# Catena-X value proposition

First time offer of a sovereign, multi-tier data exchange and use case collaboration across the entire value chain.

## Optimization of „our“ industry value chain processes



- Addressing the **entire problem** (end to end workflow)
- **Creating flow** of information for all participants
- **Scaling** across the industry and beyond

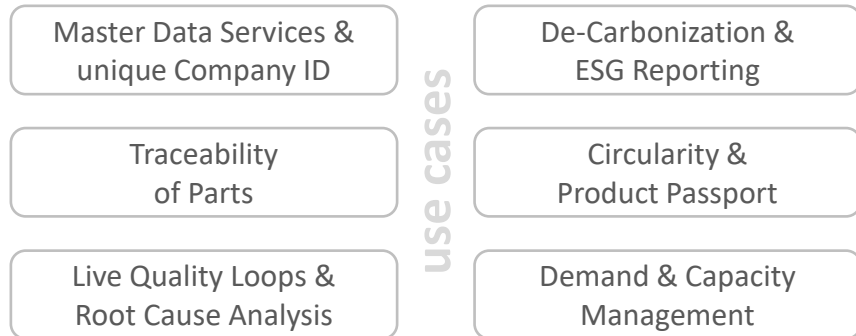


# What is new about Catena-X, compared to previous solutions

Catena-X doesn't replace existing offerings, it fills gaps and redirects forces towards a common **GOAL**.  
Catena-X enables all participants to collaborate compliantly within one shared global **DATA SPACE**.

## Common **GOAL**

Solve top industry problems together and now



... many more to come 2024

## Shared global **DATA SPACE**

- One **operating model** and **federated operating system** for the data space
- **Customer value journeys** for common GOALS enabled by open, multi vendor marketplaces



- Foundational services and **standards** built upon **OSS (KITs)** with dedicated **developer journeys**



- **Neutral governance**, incl. conformity assessment body

## We simply call this „**NETWORK of NETWORKS**“

Enabling a data driven value chain collaboration for the first time



# What's in for me, as a company?

Catena-X focusses mainly on use cases; common GOALS. Every use case offers business value for adopters and solution providers. Catena-X is the enabler to capture these BENEFITS for all participants.



## BENEFITS for each participant

### Offer / gain digital **SOVEREIGNTY**

- **Data** - keep control over your data (usage policies, de-central, ...)
- **Services** - choose your provider from open markets (interoperability, ...)
- **Operations** - decide where your data is stored & operated (de-central, ...)
- **Identity** - self managed and trusted (SSI, use across providers / data spaces, ...)

### Reduce time to **VALUE** and create positive business impact

- **Boost digital readiness** of your company via onboarding services
- **Empower your business via use cases** (e.g. share a service or collaborate)

### Minimize **COSTS** for digital transformation and doing business, e.g.

- **Consolidate IT interfaces** (e.g. data exchange, global reach)
- **Share services** within the industry (e.g. golden record master data)
- **Capture synergies** between use cases (building blocks & network effects)

### Foster **INNOVATION** and digital transformation

- **Enter new value pools** and gain competitive advantages



# Catena-X value proposition in action

Example “Circularity”: First time value derivation made possible by utilizing the trusted data space.

## Fast Facts

**100 billion**  
tons of material resources  
consumed annually



**< 9%**  
of resources are  
recycled or reused



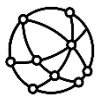
**~ 30%**  
secondary material  
ratio per vehicle



**\$4 Trillion**  
demand for battery  
materials up to 2050

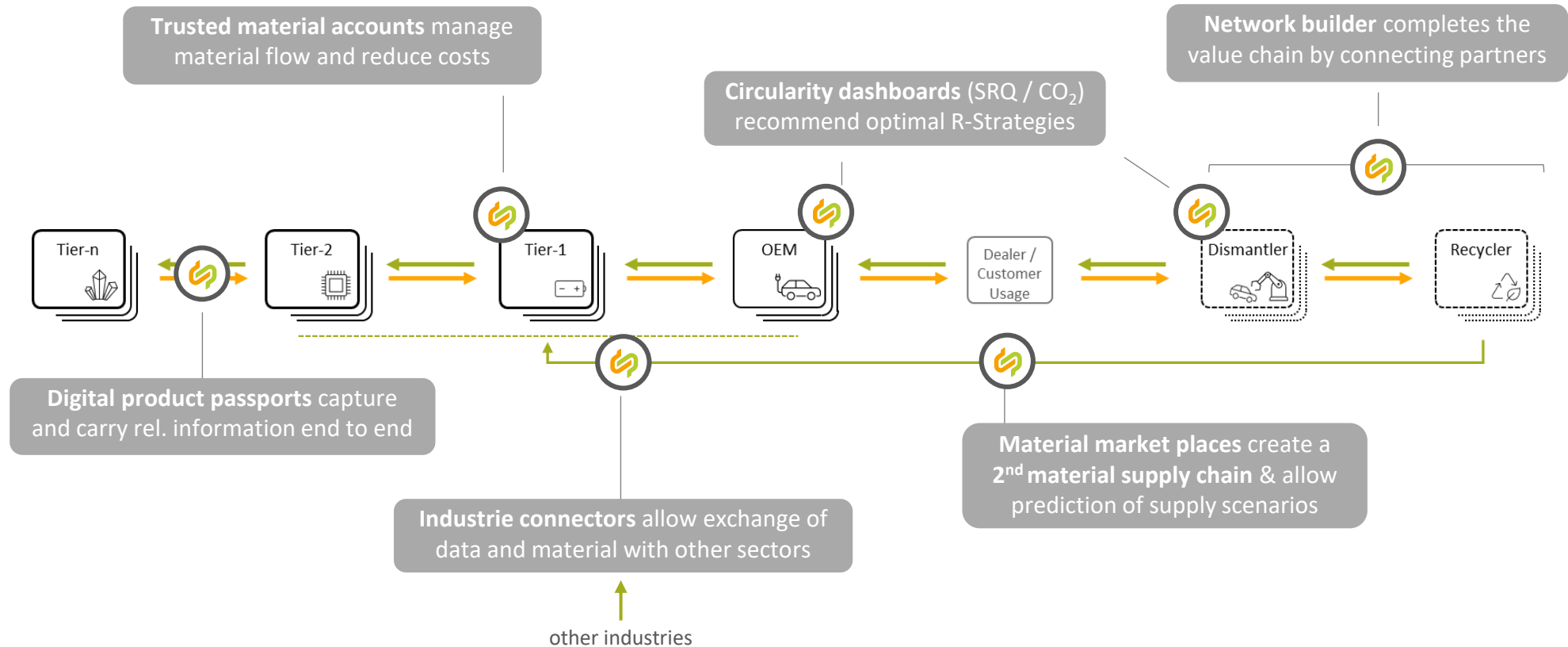


**>30.000**  
to be connected industry  
partners (to close loops)



## Catena-X Standards & Artifacts (🔗)

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





# Core offering and value proposition for DEVELOPERS

Releasing and updating standards, incl. policies and reference-implementations are amongst Catena-X' key offerings to enable collaboration and interoperability.



... uses two channels for publishing standards and developer resources

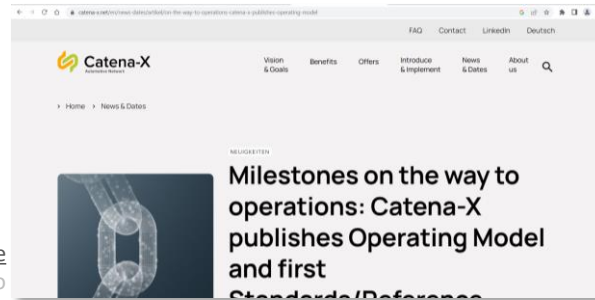
... is build upon the latest GAIA-X Trust Framework (22.10)



## Website

standards & whitepapers

click [here](#) for more info



Apache 2.0 / CC BY4.0 reference-implementations and developer resources

click [here](#) for more info



## Current status

- 29x Standards (R 2.0) +
- 1x Operating Model (R 2.0)
- 16x Standards (R 3.0) +
- 16x Standards (R 3.1) +
- 9x modified Standards (R 3.1)



click [here](#) for more info

## Next expected update


- 09/2023 (R 3.2)
- + pot. 24x Standards
- + pot. 32x modified Standards



## Current Status

2<sup>nd</sup> Release (R 3.1) 07/2023



4x solution domains with dedicated developer journeys and artifacts (→ KITS 

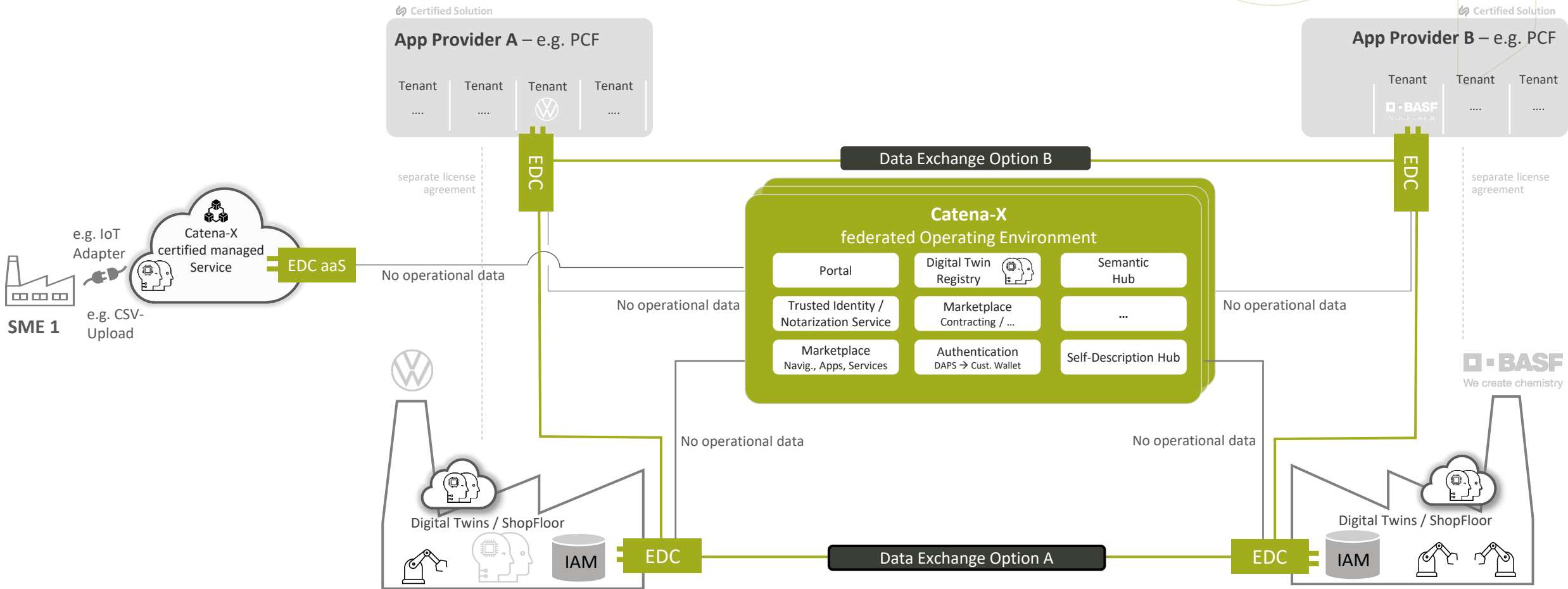
**Note:** Catena-X plans 4x releases per year // Winter x.0 → Spring x.1 → Summer x.2 → Fall x.3 // The next release is expected: 09/2023 (Release 3.2)





# How the Catena-X data space works

Sovereign, federated and interoperable. Incorporating GAIA-X principals and frameworks.



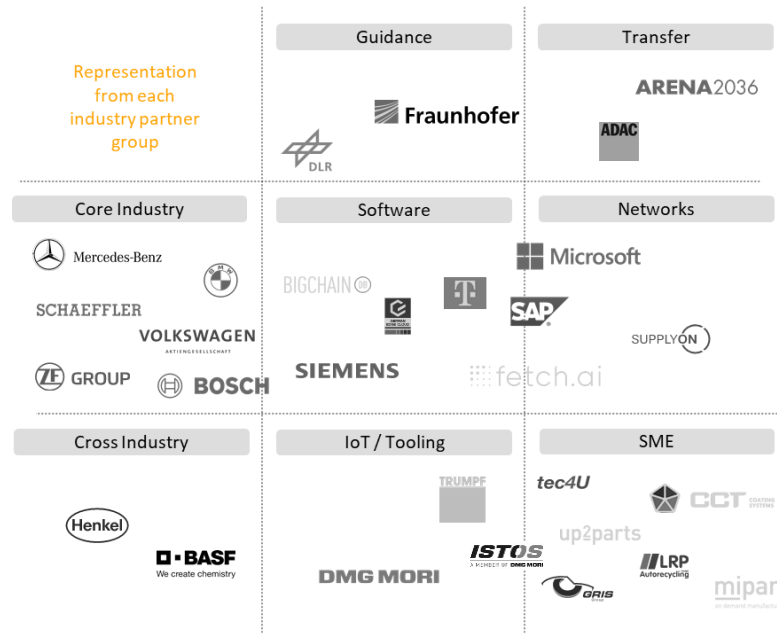
Note: EDC = Eclipse Data Space Connector (OSS)



# Starting and scaling the Catena-X data ecosystem

It takes the right balance of partners to start with and a global way forward to foster adoption.

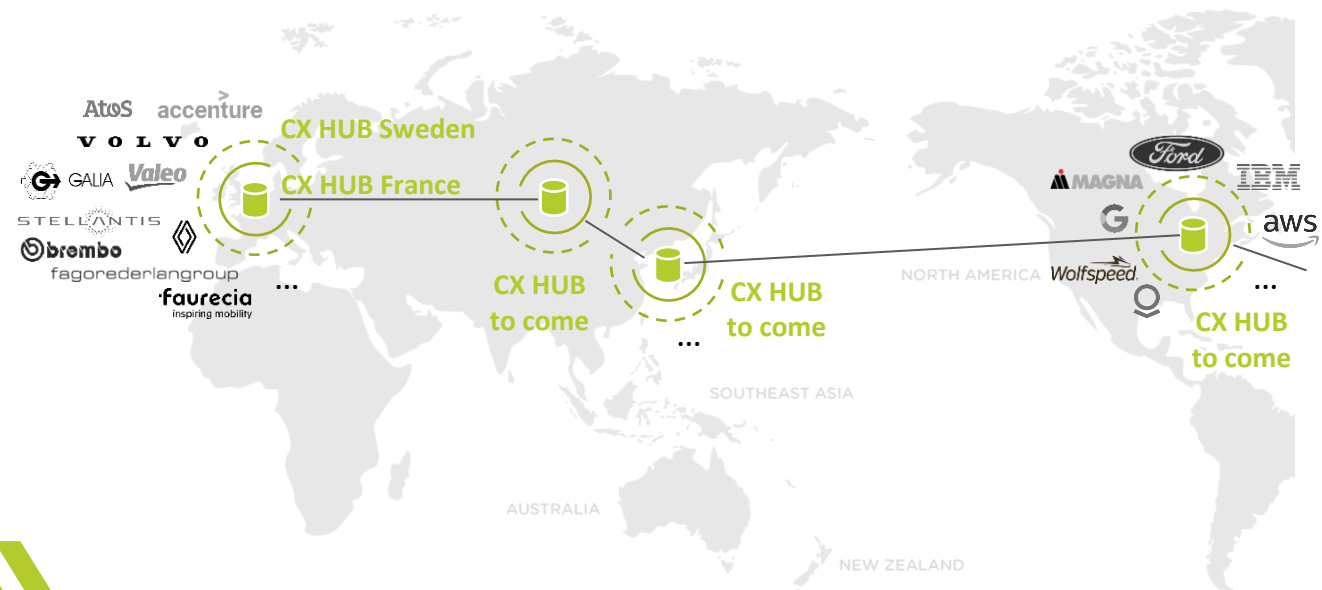
**KICK START - TEAM** to build and launch the initial foundation; all interest groups are represented



28 initial development partner started in 08 / 2021



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



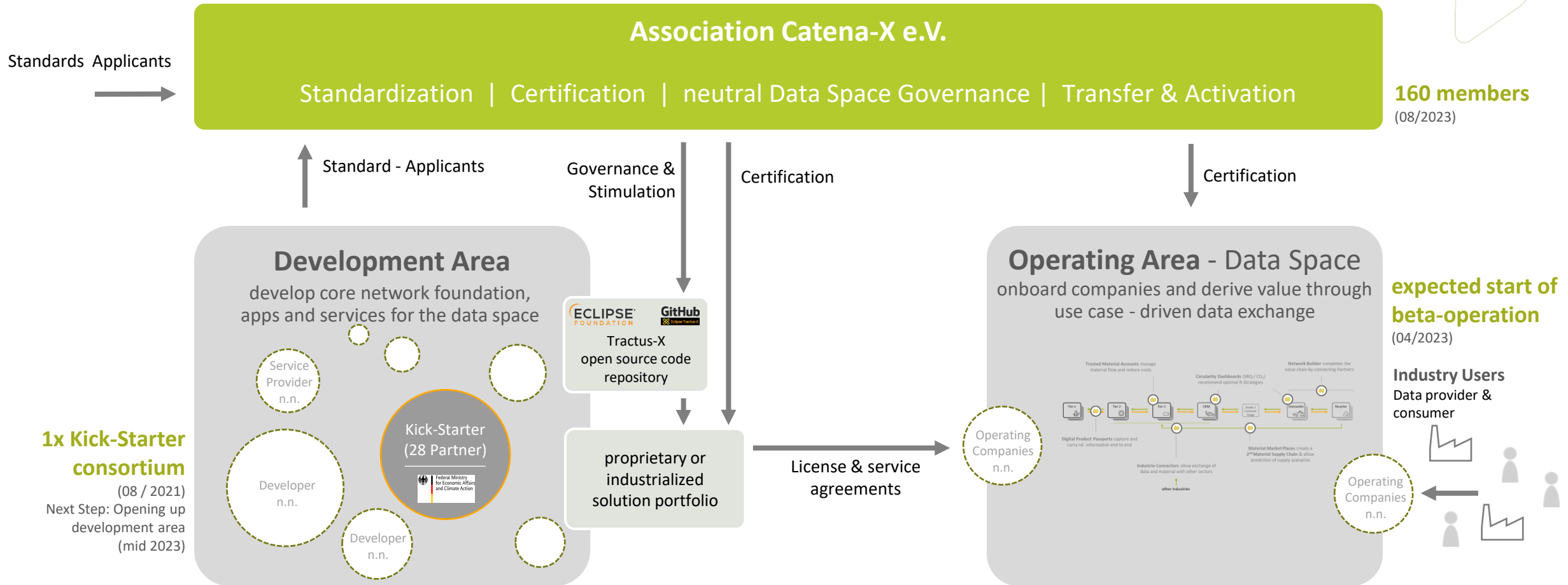
160 global partner in Catena-X association (08/2023)

examples of international Catena-X members; for a complete list click [here](#)



# Organizing the activities of Catena-X

The art of **BALANCING POWER** and **FOSTER COLLABORATION** within a data ecosystem.



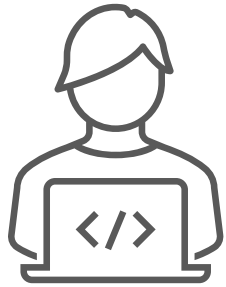
**1x Kick- Starter consortium**  
(08 / 2021)  
Next Step: Opening up development area (mid 2023)



# Know your customers and their concerns

**SYSTEMATIC COVERAGE** requires a trusted & interoperable solution portfolio for companies with little data readiness.

Understanding & focusing  
on the  
CX CUSTOMER  
→ Adopter



Business User  
e.g. quality engineer or  
sustainability mgr.

plus related departments  
within a company  
( e.g. IT, Governance )



**SME & Companies**  
with little data readiness  
or digital footprint

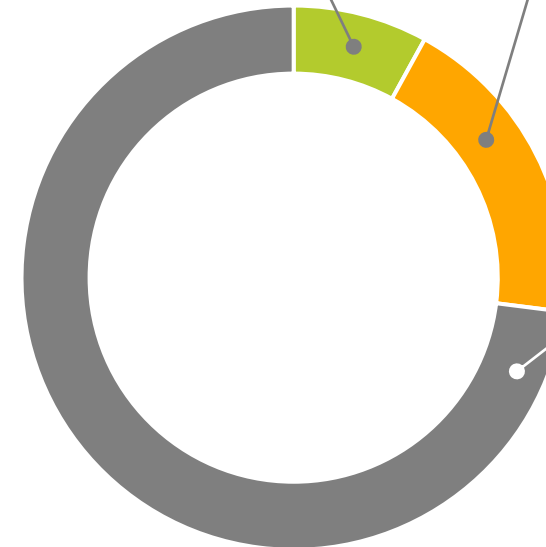


**Companies**  
with good data readiness  
and digital footprint

Do you plan to exchange data with other companies  
within the next two years?

8%  
Yes, I already do so now

27% Yes, I do plan on that  
(as provider and receiver)



65% remain  
uncertain

- Incompatible data sets
- Legal uncertainty
- Finding the right Partner
- Difficult finding common ground
- Economical attractiveness
- ...

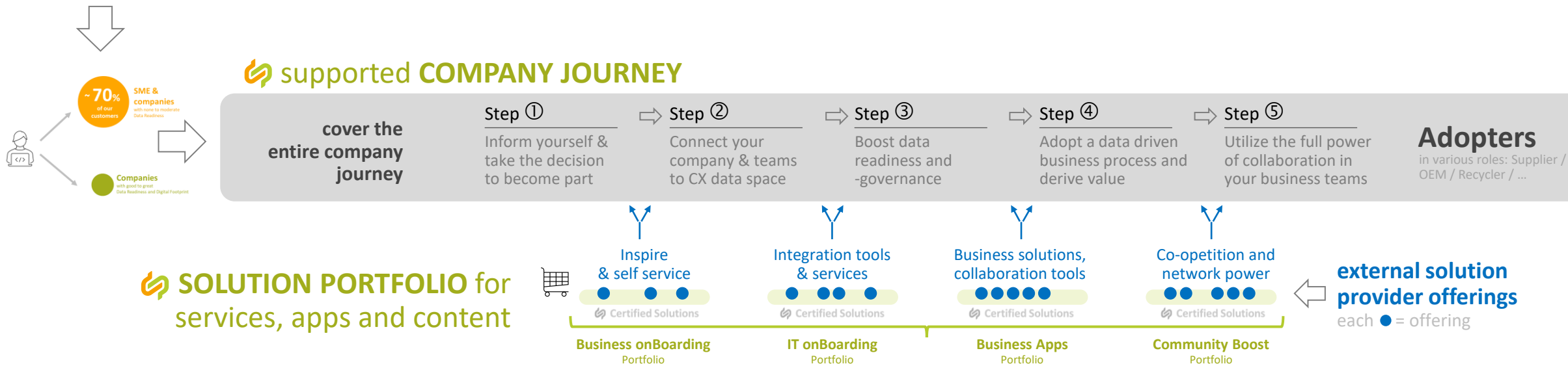
Source: [bitkom](#) 05/2022, Datenökonomie – Wo steht die deutsche Wirtschaft?



# Core offering and value proposition for **ADOPTERS**

Support the individual adopter to become part of a dedicated Catena-X use case and create instant value by offering them a multi vendor and interoperable SOLUTION PORTFOLIO along their COMPANY JOURNEY.

**Example: Targeted business value for use case “de-carbonization”:** Report and steer the de-carbonization of our value chain with dedicated measures based on real PCF values, without compromising upstream data sovereignty

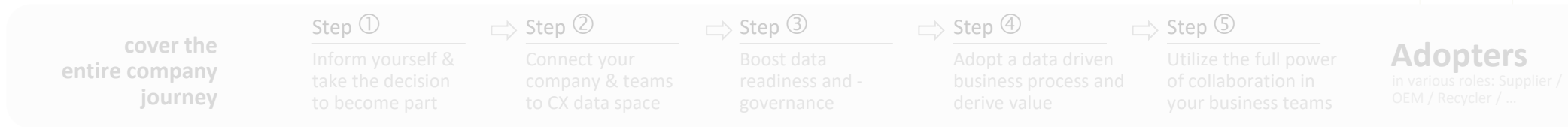




# Connecting developer resources with adopters needs

Catena-X offers dedicated ARTIFACTS per use case KIT to stimulate and empower the solution provider offering.

## supported COMPANY JOURNEY



## SOLUTION PORTFOLIO for services, apps and content



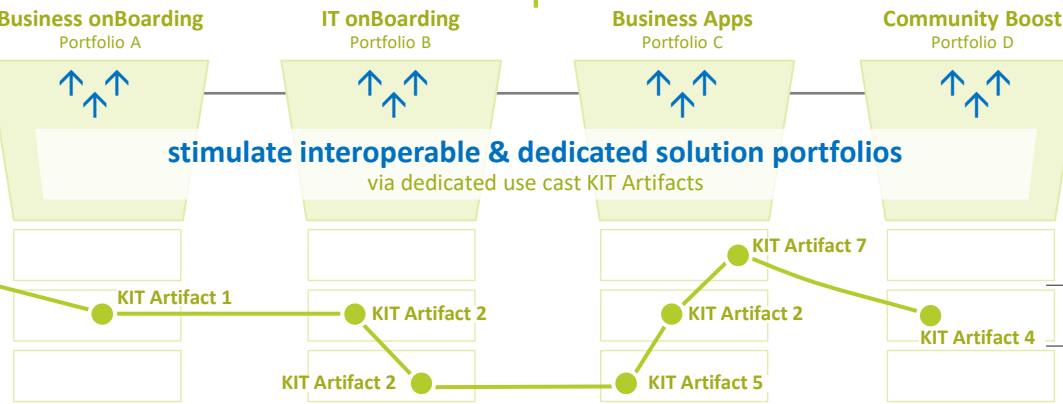
### Shared industry foundation

= offering strong developer resources / ARTIFACTS via use case KITs  
 = open source to empower collaboration and foster adoption



- Mission, targets and problem description
- Processes, customer group requirements
- Use case specific ARTIFACTS to stimulate SOLUTIONS for the COMPANY JOURNEY

### stimulate interoperable & dedicated solution portfolios via dedicated use cast KIT Artifacts



- Compliance Level  
Testbed / Integration, Testdata, Verification ...
- Quick Starter Level  
stimulate / open up markets, boost apps ...
- Base Level  
enable interoperability and conformity



### shared network foundation ...



definition and scope of Catena-X general ARTIFACTS click [here](#)



# Building data chains via interoperable solution portfolios

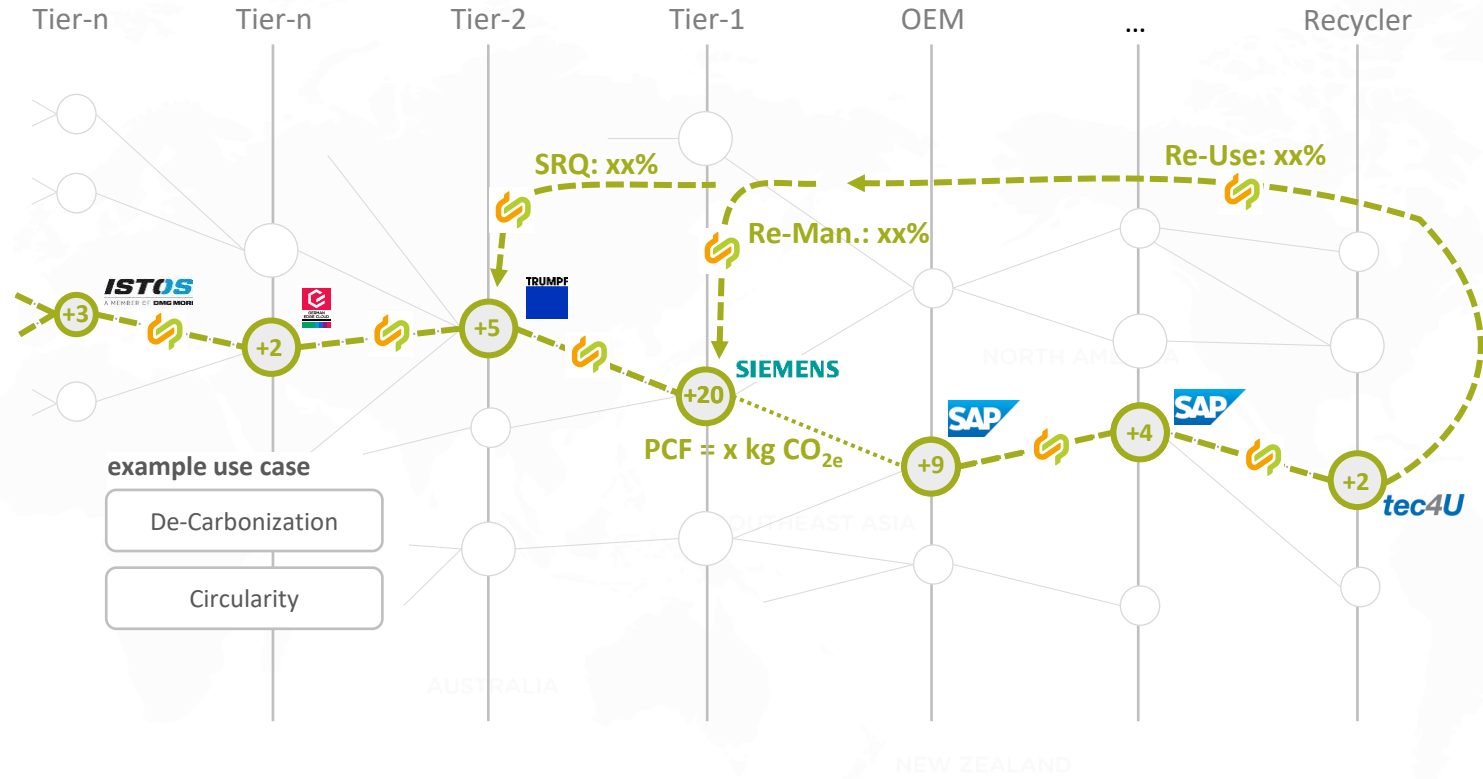
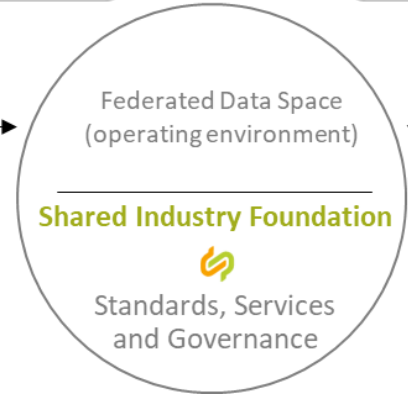
Catena-X **SOLUTION PORTFOLIOS** allow providers to offer e.g. interoperable services for dedicated use cases.

### Solution Providers

- Interoperable Portfolio for
  - onBoarding
  - Applications
  - Operations ...

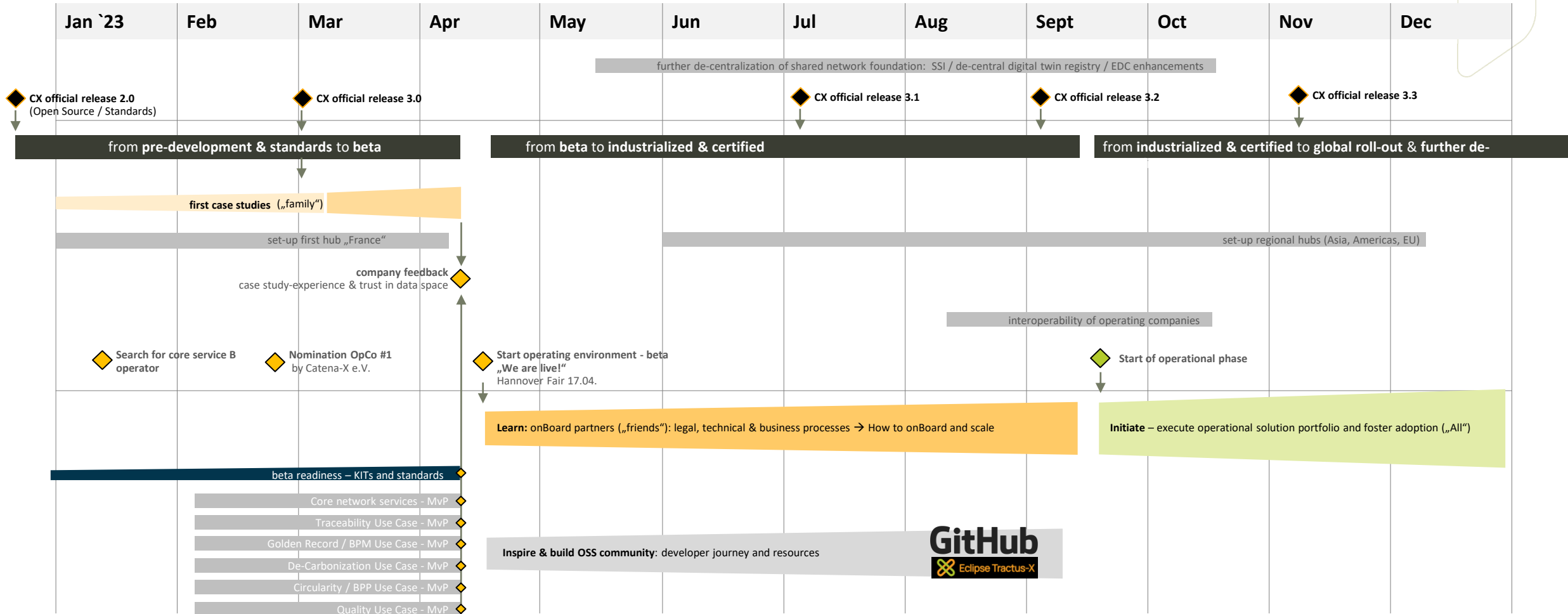
### Adopters / Customer

- Business User
  - OEM
  - nTier
  - Recycling
  - ....





# Catena-X Roadmap 2023





# FAQ



## **Do I need to be a member of the association in order to use Catena-X?**

No. Using the data space requires a registration via a certified operating company and an additional conformity assessment (certification) for service providers.

## **When can I use Catena-X to exchange data?**

Catena-X will start operations in Q2/2023 with a controlled beta phase and targets an initial offering as of fall 2023.

## **Who is already a member of the association?**

click [here](#)

## **When should my company join the association?**

Mainly, when you want to contribute to the network foundation based on open source, create standards and support the market adoption.

## **Can anyone join Catena-X and start a data chain and offering?**

Catena-X is currently an automotive movement, every member of this industry is welcome to join. Building data chains is however a complicated endeavor and therefore will start in a controlled manner. Service provider offerings have to be certified before they can place their offering or use the Catena-X logo and name in their communication.

## **Is Catena-X available in all countries?**

Since the automotive industry is a global network of partners, Catena-X will in general follow these value chains. Catena-X will release guardrails for a country based roll-out, incl. countries of no operation.

## **How can I access Catena-X standards and offer software?**

Please click [here](#) for more details.

## **When is the next biggest event to get in touch with Catena-X?**

Catena-X offers regular online events, see [here](#)

The next onsite event is planned for the Hannover Fair starting 17.04.2023.



# Catena-X



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Need more information: [info@catena-x.net](mailto:info@catena-x.net) // [www.catena-x.net](http://www.catena-x.net)