





Why a Regulatory Framework?

Catena-X is an initiative to collaboratively optimize the automotive business processes. It extends one's corporate centric processes beyond multiple organizations that are part of a dedicated product value stream. Catena-X boosts the efficiency of its participants by a data driven value chain.

To run cross-company business processes, scalable and trusted collaboration rules and policies are required, that are adopted by all participants. Catena-X sets those rules and policies where needed (e.g., Data Space Flight Levels) and captures them in this regulatory framework.

This paper aims to help all Catena-X participants – from newcomers to seasoned Catena-X veterans – gain an overview of their individual and shared responsibilities across multiple layers of operations in our data space.

Benefits

Trust, Efficiency & Scalability

The Catena-X Regulatory Framework for data space operations acts as a guide and mutual foundation that all data space participants can rely on to ensure trust, interoperability, and scalability. Key objectives & benefits include:

Creating a basis of mutual trust and minimizing ambiguity. Data spaces are a relatively new form of digital collaboration that empower entire industries to leverage (economic) potentials previously unavailable to individual companies. In an industry as competitive as the automotive industry, the success of Catena-X largely depends on trusting that every participant plays by the same rules that are commonly set. And that is the aim of our Regulatory Framework. By focusing

on transparency and accountability, we make sure that there are clear ground rules for collaboration as well as compliance with all applicable laws and regulations.

Focussing on efficiency and enabling rapid scalability. By standardizing many of the relationships and agreements necessary for data exchange and bringing Catena-X use cases to life, data space participants can focus mainly on their individual business needs. Through collectively approved guidelines and templates, data exchanges on Catena-X can be drawn up rapidly and without friction. Resources for all participants can be allocated to where they are most needed.



Context

Responsibility & Compliance

Catena-X is committed to operating in compliance with all applicable laws and regulations, and we recognize the importance of transparency and accountability in our data space operations. To that end, we continue to develop a holistic Regulatory Framework that outlines the requirements and responsibilities for all stakeholders involved in our activities.

In addition to our Architecture Guardrails, our Regulatory Framework constitutes the normative core that shapes the Catena-X data space governance. It supplements other governance components, such as standards (e.g., through Use Case Terms and Conditions that shape the application of standards in individual use cases). In addition, it provides mandatory

requirements for development of future solutions and is in turn influenced by feedback from our data space operations. A fitting metaphor would be that it is like our very own traffic regulations for the virtual (data exchange) roads that define Catena-X.

FOR MORE INFORMATION: Please see "Figure 2 Catena-X Data Space Governance Elements" and "Figure 3 Catena-X Regulatory Layers of Data Sovereignty" for a visual representation of the Catena-X governance elements.

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Key Components

Common Rules & Responsibilities

The Regulatory Framework for data space operations is made up of individual components that each govern a specific layer of our data space operations.

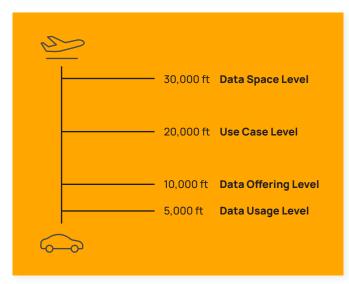


Figure 1 Catena-X Regulatory "Flight Levels"

To understand the layers of our Regulatory Framework, think of flight levels as a metaphor. The 30,000 ft level provides the overall framework; 20,000 ft is for specific use cases, 10,000 ft for individual data offerings, and 5,000 ft

for automated contract negotiations. Each higher level cascades into the lower ones, and the lower levels align with those above. Each level comes with specific guidelines and resources but also responsibilities for participants in our data space. For example Use Case Terms and Conditions published by the Association reduce ambiguity for participants by laying out a set of "check questions" to guide the creation of use case documents and enable data sharing. These questions include who, with whom, what, where from and where to, why, how, and when.

Each of these layers is designed and implemented by the Catena-X Association. To some extent, this groundwork is necessary because regulatory frameworks for data spaces are relatively new and untested. Another reason is the major change process Catena-X represents for the industry. By commonly developing and implementing rules and guidelines, the spirit of collaboration is imprinted into the regulatory core of Catena-X and, as a result, acceptance of these rules and guidelines climbs.

Lastly, both from an antitrust and legal perspective, as well as from the perspective of enabling viable and scalable business cases, operating under a common set of rules and responsibilities has no alternative.



Roadmap

Building Blocks

Maintaining and updating our Regulatory Framework for data space operations lies within the responsibility of our Managing Director – Operations & Governance. However, each building block must be approved by the Executive Board to ensure that the Regulatory Framework meets the requirements of our members.

Stay tuned for further building blocks to our Regulatory Framework for data space operations.

All stakeholders involved in Catena-X activities are encouraged to familiarize themselves with our Regulatory Framework for data space operations and understand the requirements and obligations that apply to them as we continue to publish them. By working together with transparency and accountability, we can build a trusted, scalable, and efficient data exchange network for the automotive industry.

Regulatory Framework >

Annex

Data Space Governance & Regulatory Layers

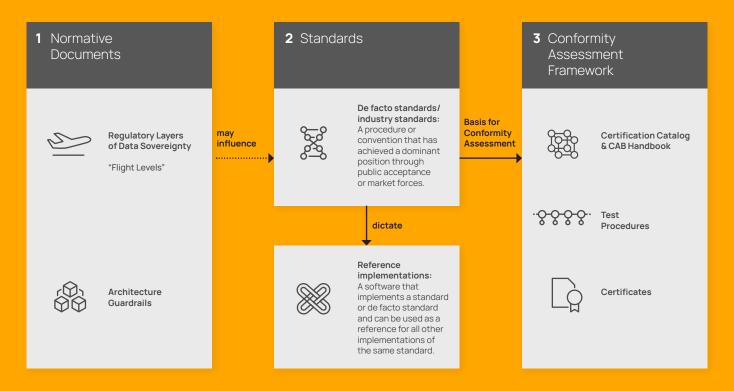


Figure 2 Catena-X Data Space Governance Elements





60,000 ft Data Space Level



Golden Rules



Operating Model Serves as the basis for the verification of Core Service Providers (CSP) A and B. The Golden Rules document, which outlines the basic principles of the data ecosystem, is published by the Catena-X Association and provides clear guidelines for necessary specifications at lower levels. It also specifies how far a technical standard can go. The agreement between the CSPs and participants (e.g., data providers and data consumers) is established during onboarding.

1 Normative Documents



Regulatory Layers of Data Sovereignty

"Flight Levels"



Architecture Guardrails

20.000 ft l

Use Case Level



Use Case Policy Trace-X Dedicated guidelines for each use case and participants must confirm compliance with the standards and conditions to participate in a specific use case. The CSP A/B are responsible for capturing this information. The Use Case Policy is published by the Association and includes a set of "check questions" to guide the creation of use case documents. These questions include who, with whom, what, where from, and where to, why, how, and when. Partners must confirm their participation in a specific use case through a participation statement to the CSP B. Technical standards for use cases, such as semantic models, roles, rights, and APIs, are standardized by the Association.

10,000 ft

Data Offering Level



Access

Participants configure specific data offerings while the Catena-X Association provides a framework and structure for individual adjustments (for non-mandatory scope). The Association details usage policies in the Use Case Framework document, including selected building blocks for individual customization. The Association prioritizes the agreement of data exchange parties for non-mandatory scope. Access policies, such as who (defined by BPN, role, etc.) can access a specific data asset, are also defined at this level.

5,000 ft

Data Usage Level



EDC

Automated negotiations of data-usage contracts between participants for specific data offerings (as defined at 10,000 ft) occur through the Eclipse Data Space Connector (EDC). A data-usage contract with the EDC (decentralized and key-signed protocol for data usage logging) can specify the partners, the data assets, and how long data is used.



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