

Expert Group Profile

Description of the Expert Group

Name of the Expert Group	<i>Exchange Patterns</i>
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Initial Situation

Today, Catena-X use cases often define their data exchange concepts individually, resulting in fragmented implementations and limited reuse across domains. Similar exchange mechanisms are repeatedly designed and specified by different use cases, creating unnecessary complexity for both standardization and implementation. As the number of Catena-X use cases grows, this approach becomes increasingly difficult to manage. Without a common set of exchange patterns and architecture guardrails, use case standards risk diverging over time, reducing interoperability, increasing implementation effort, and slowing ecosystem adoption.

The Exchange Patterns Expert Group will establish a common set of reusable exchange patterns as architecture guardrails that serve as a key element of the Catena-X Use Case Foundation Layer. These patterns will provide a consistent approach for designing and implementing data exchange across all business domains and use cases.

Goals

The goal of the Expert Group is to define, maintain, and govern a set of standardized exchange patterns that serve as mandatory architecture guardrails for Catena-X use cases.

The group will identify common exchange requirements across existing and future use cases and translate them into reusable exchange patterns. These patterns shall become the preferred approach for designing interoperable Catena-X solutions and reduce the need for use-case-specific exchange concepts.

The Expert Group will work in close alignment with the Semantics Expert Group to ensure that exchange and semantic requirements are addressed consistently. Both groups will jointly support use case teams and ensure that requirements of existing and future use cases are reflected in the evolution of the Foundation Layer.

A key objective is to establish the first exchange-pattern-compliant use cases by Release 27.09.

Deliverables

1. Definition of the Catena-X Exchange Pattern Framework, including a catalogue of reusable exchange patterns and the associated architecture guardrails.
2. Identification and consolidation of exchange requirements from existing and future use cases to derive reusable exchange patterns that can be applied across business domains.
3. Support and governance for use case development, including guidance on exchange pattern selection and assessment of exchange-pattern compliance during the Catena-X release process.
4. Migration support for existing use cases to adopt approved exchange patterns and improve interoperability and consistency across the ecosystem.
5. Alignment with the Semantics experts to ensure that exchange requirements, semantic requirements, and implementation considerations evolve consistently.

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6. Establishing exchange pattern as a stable integration foundation for use cases abstracting from technical protocol implementation resulting in resilient, stable and reliable integration components.

The Expert Group will play an essential role in the Catena-X release process. New use case standards shall only be released after approval of their exchange concept by the Expert Group. Consequently, the group will actively support use case teams in selecting suitable exchange patterns and ensuring compliance with the defined architecture guardrails.

Existing use cases will be systematically reviewed to identify common requirements and derive reusable exchange patterns. Once exchange patterns have been established, the Expert Group will actively support use case teams in migrating towards compliant exchange patterns.

Required Member Profile

We are looking for experts who can actively shape the future exchange architecture of Catena-X. Applicants should bring strong expertise in at least one of the following areas:

- **Extensive knowledge of the Catena-X**, including architecture principles, standards, and core concepts.
- **Practical experience in the implementation of Catena-X use cases**, ideally with a deep understanding of interoperability and data exchange challenges.
- **Knowledge of Catena-X use case architectures and exchange patterns**, including experience in designing, evaluating, or standardizing data exchange concepts.
- **Expert knowledge of common integration architectures and exchange patterns**, including API design, messaging, event-driven architectures, idempotency, and operational resilience, with the ability to transfer proven industry best practices into the Catena-X ecosystem.

The Expert Group will require a significant time commitment. The ambition is to enable the first exchange-pattern-compliant use cases by **Release 27.09**. To achieve this objective, members are expected to actively contribute throughout the next year and participate in intensive working sessions.

The current planning includes one or more dedicated **multi-day workshops during 2026 starting in September** in addition to the regular working meetings.

Why Should I Participate?

By joining the Expert Group, you will help define the architecture guardrails that future Catena-X use cases are expected to follow.

Members will have a direct influence on how data exchange is designed and standardized across the Catena-X ecosystem. The group will shape a fundamental part of the Use Case Foundation Layer and contribute to improving interoperability, accelerating adoption, reducing implementation complexity, and increasing reuse across business domains.

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Participation offers a unique opportunity to influence a foundational capability that will affect every future Catena-X use case and become a key enabler for scaling Catena-X.