

# INTRODUCING DECADE-X

MARCH 03rd, 2026  
M.LABY Airbus Commercial Engineering 1ZP

Supply chain Resilience

Innovate

Sustainability

Focus

Scale



# The Challenges

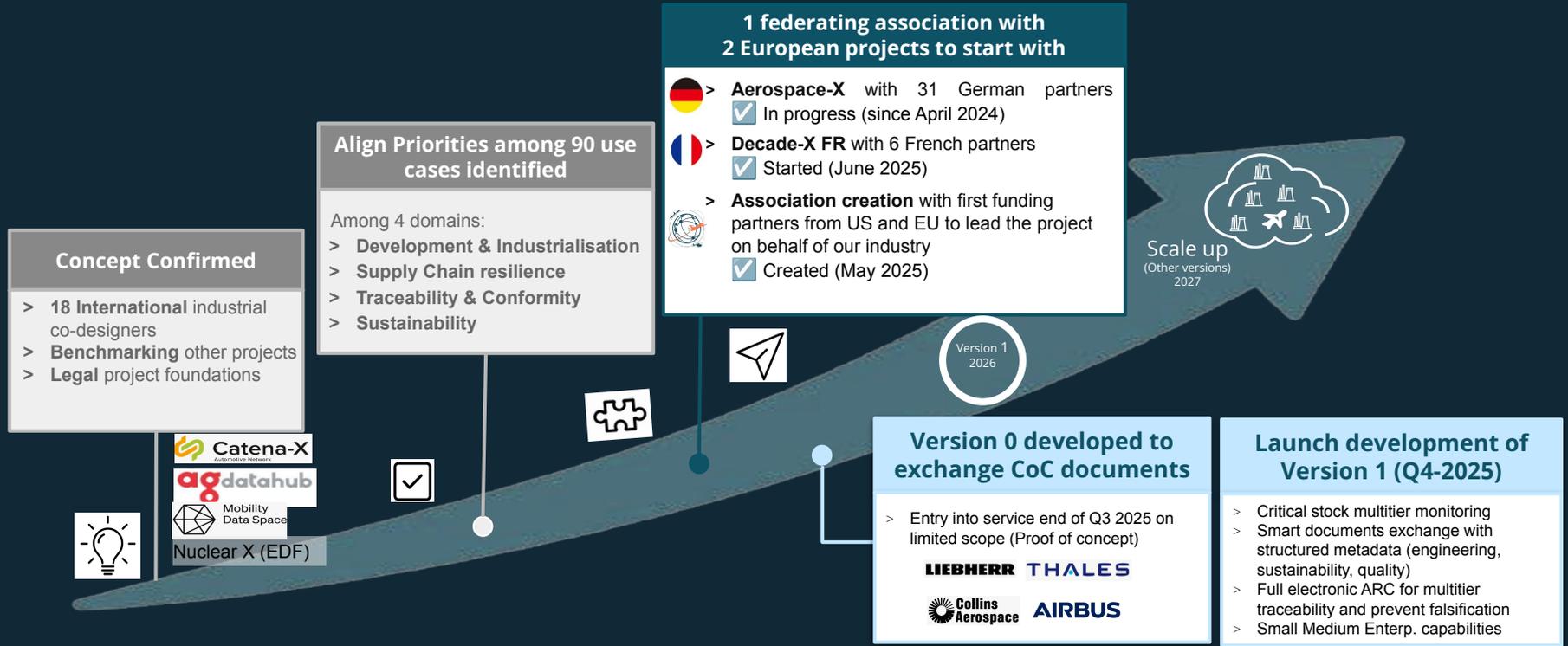
## PAST & CURRENT

COVID  
DATA SOVEREIGNTY  
MULTIPLE IT SOLUTIONS

## FUTURE



# From concept to reality



Multi-dimensional journey since 2023 towards a federating industry project

# Motivation: Unlock the strength of a trusted collaborative supply chain

## Industrial challenges



Resilient Supply chain



Trusted traceability



Efficient  
co-development

## Collective concern



Data sharing control

Successful collaboration & data driven decision depends on:  
“capacity to get access and give access  
to trusted data in a controlled way”

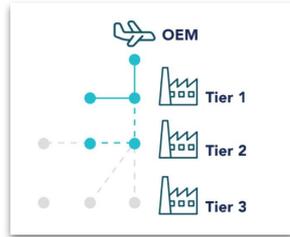
▶ An industry project led by new association



With executive members bringing international leadership and experience



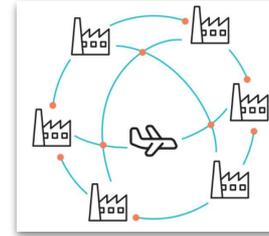
# Data Spaces are new way of collaborating and exchanging data



From current discontinued digital supply chain landscape...



...to new global Ecosystem with direct exchanges



## 4 differentiating principles

**TRUST**

**INTEROPERABILITY**

**MULTI-TIER**

**ADOPTION**

Peer-To-Peer exchanges

Data Contracts with verified Identities

Transparent & shared Governance

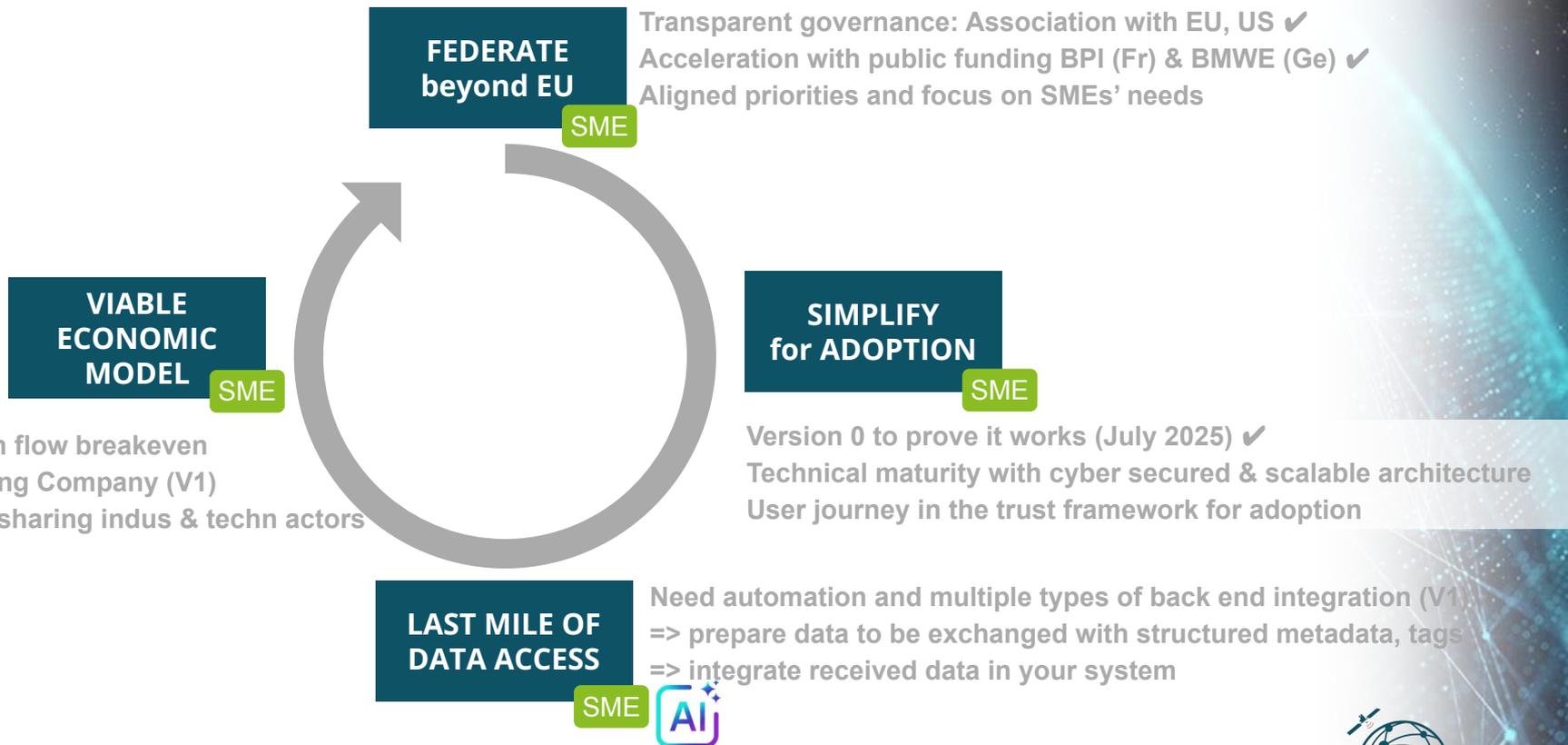
Common Language with Standards

Agile multi-tier chain validation

Tailored for SMEs



# 4 strategic success factors



# Evolving Data Exchange and Infrastructure Patterns



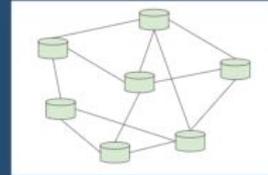
Centralized Data Hub



Drawbacks: sovereignty concerns, scalability limitations, risk on single point of failure.

- *Data Sovereignty Issues*
- *Scalability Limitation*
- *Risk of single point of failure*

## Distributed Data Exchange

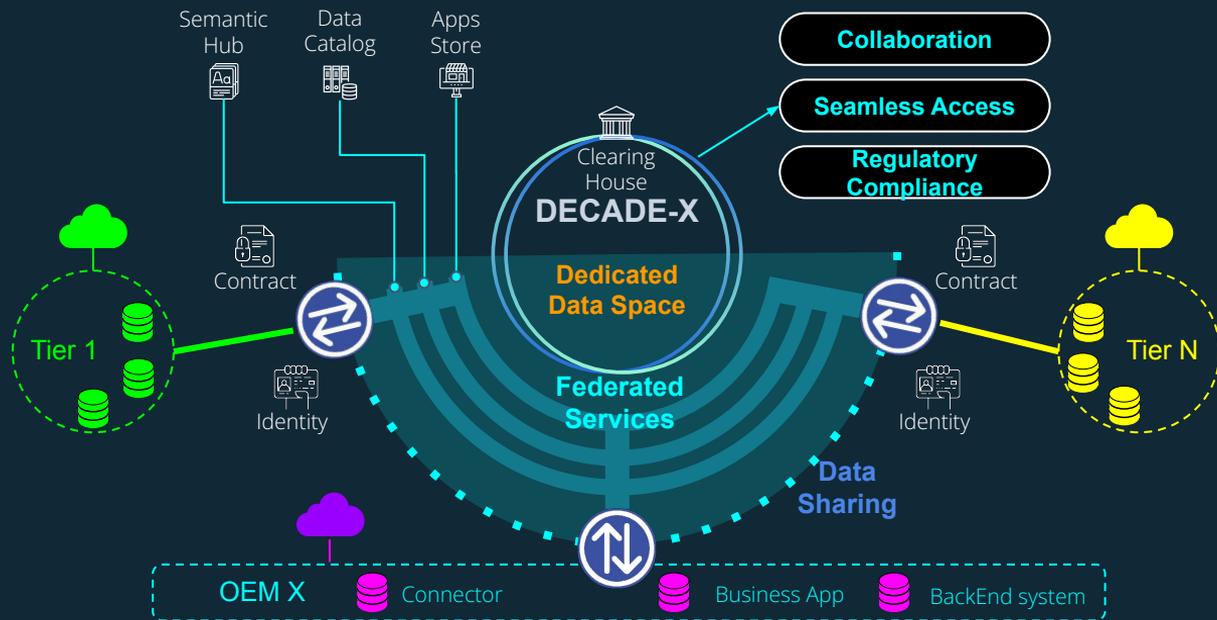


Drawbacks: web of custom integrations, lack of standardization in identity and exchange formats, N-squared integrations

- *Lack of Standardization*
- *N-squared Integration*
- *Push Mode only*

# DECADE-X IN A NUTSHELL

## Digital Ecosystem for Aerospace and Defense



### ASSOCIATION

Industry Project Leads:



Partners & Funders

BPI France

AEROSPACE-X

NextEra Members

### TRUST & TRANSPARENCY

Trust framework to keep control over **conditions of data sharing**

### FEDERATION & INTEROPERABILITY

Aligned **standards and semantic layers** enabling digital continuity and preventing vendors lock in

### MULTI-TIER

**Multi-tier chain built** and controlled by each tier of the supply chain

### SME ADOPTION

Adapted architecture and use cases for Small and Medium enterprises

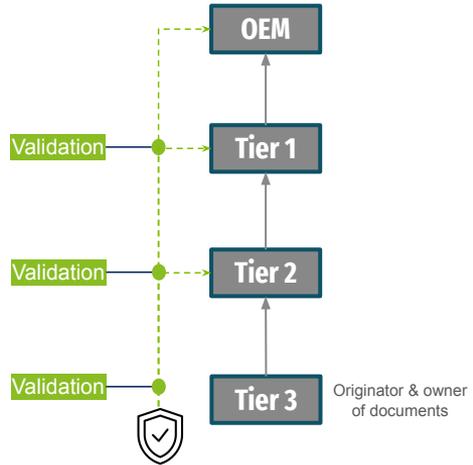
# What will be different in our business with such ecosystem?

## Case 1: Mitigate falsification risk

First exchanges: Certificate of conformity ✓

**Benefits:**

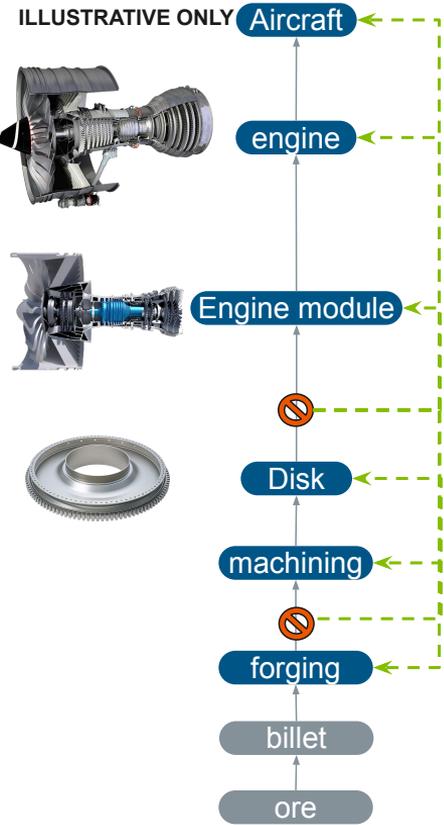
Ensure documents are coming directly from the trusted sources



VERSION 0 (2025)  
First multi-tier chain  
(proof of concept)

VERSION 1 (2026)  
Automation and  
industrialisation

## Case 2: Critical stock shared derisking



VERSION 1 (2026)

**Benefits:**  
Prevent disruption in case of demand variation and optimize buffer stocks  
Support crisis management to access to data in standard way

Nacelle Thrust Reverser

Decoupling point (due to long component lead time)

ring shaft ...

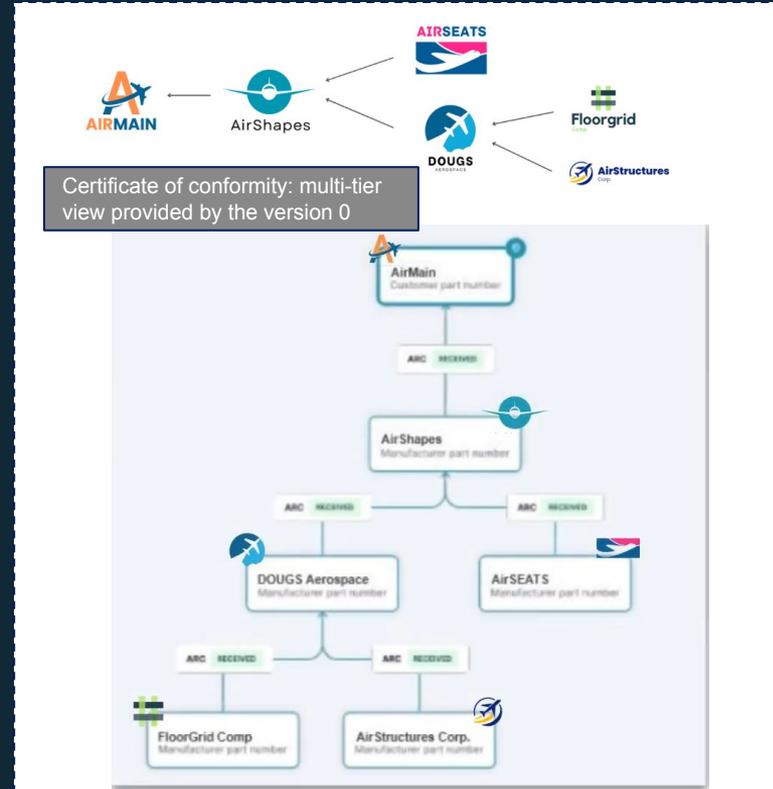
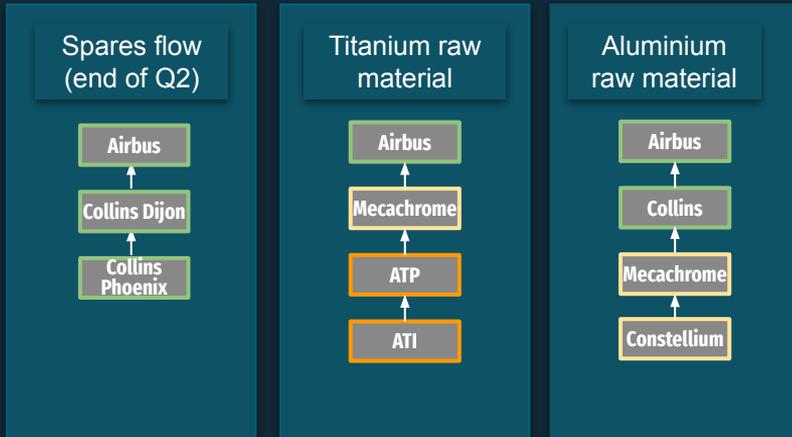


# A Concrete Example: Conformity document exchange

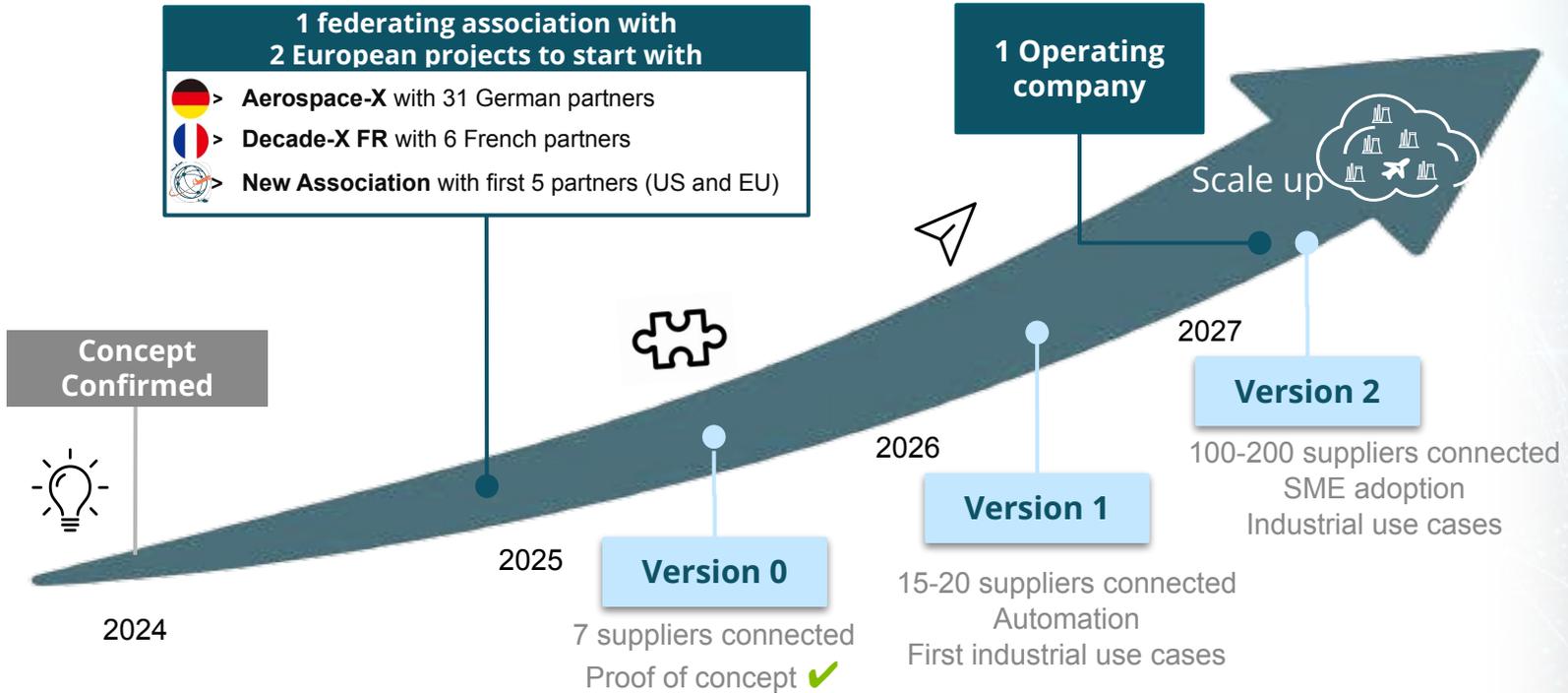
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Ambitions: Setting up **data space core services**, enabling **multi-tier approach** throughout the data sharing chain applied to **Certificate of conformity** and first Engineering **technical documentation**

Very first multi-tier chains under construction:



# From concept to reality & scalability



Strategic need confirmed by key players of our industry.



Version 0 applied for traceability deployed with 7 suppliers to prove the concept)

Version 1 targeted in 2026 with limited deployment



# Our Use Cases



\*Including Technical req. & MBSE Models: also candidate for V0 evolution → V1

## Technical Workflow (TDP)

The **contractual and project management framework** for handling various types of engineering documents at different stages (Milestones & Gates) of the project. It's designed to **manage and validate the flow of documents and data**, regardless of their origin and types, for a given milestone. It is based on the concept of **Technical Data Package**. It calls upon the other four use cases to handle the specific, detailed collaboration, exchange, and data translation.

## 3D Modeling Collaboration

The **exchange of 3D design models and related data** between partners. It enables co-design and the enrichment of Digital Mock-Up (DMU) data with supplier information using standards like STEP-A. Pilots like **DEX DMU Exchange** and **3D Co-design** are focused on ensuring a seamless and efficient co-development process for complex systems.

## Architecture (MBSE) Collaboration

The **sharing and collaboration on system and component architectures**. It's not just about exchanging modeling files, but about establishing a work method where the system architecture becomes the single source of truth. The goal is to enable partners to share crucial information like **operational logic** and the **interfaces** between different sub-systems, which is critical for proper integration.

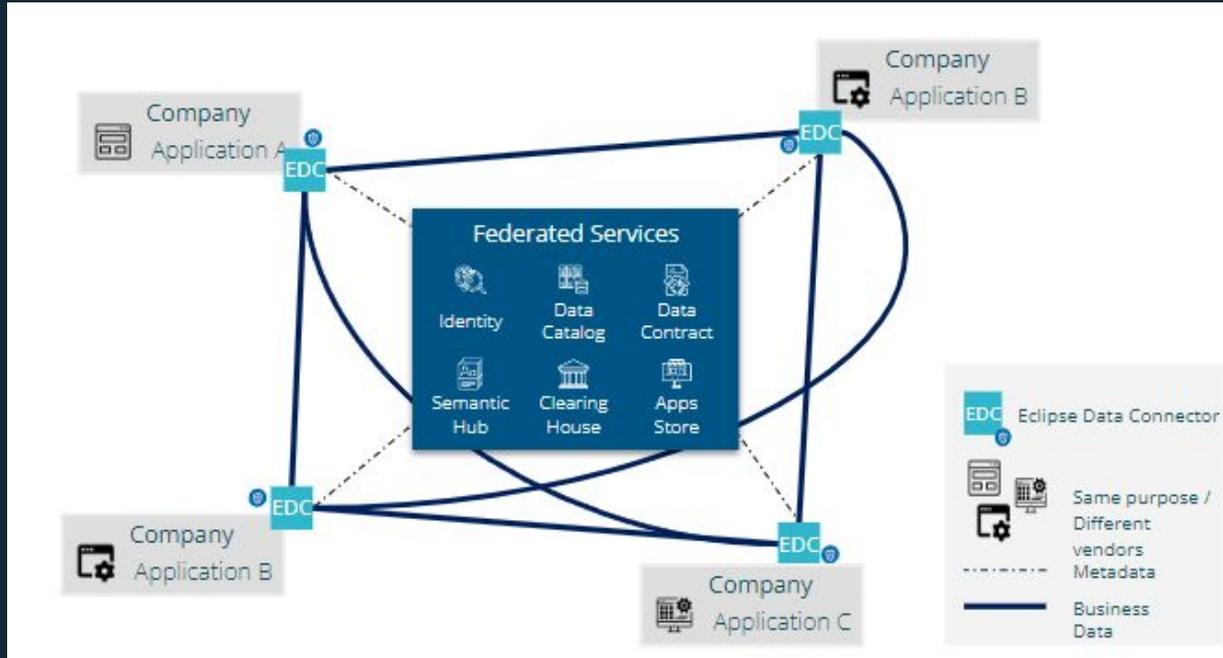
## Requirement Collaboration

The **multi-tier cascading of requirements** throughout the supply chain. It facilitates the collaborative management of complex engineering requirements and ensures traceability, ultimately helping to reduce the time-to-market. It aims to establish a single, verifiable digital repository for all standard and specification data.

## Modeling & Simulation Collaboration

The **exchange of complex models and simulation data**. The objective is to share simulation models with a high number of degrees of freedom to enable true co-development of components like engine and airframe integrations. This capability is crucial for accelerating deployment and improving co-design with our suppliers.

# The Data Space Concept in DECADE-X



If you want to know more: <https://www.decade-x.org/data-space/>

# The Federated Services Building Blocks



Identity

**Identity and access management** for companies and users part of the Data Space ecosystem (e.g. connector for data exchange and user for apps)

Apps Store

Available **catalog of applications** that could be used and that are certified into the ecosystem (free or commercial apps)

Data Catalog

Collects, stores, manages & published information (**metadata**) about **available data assets** to ensure visibility and compliant use by data recipient.

Semantic Hub

Manages and offers standardized **nomenclatures**, data models & glossary to ensure data interoperability

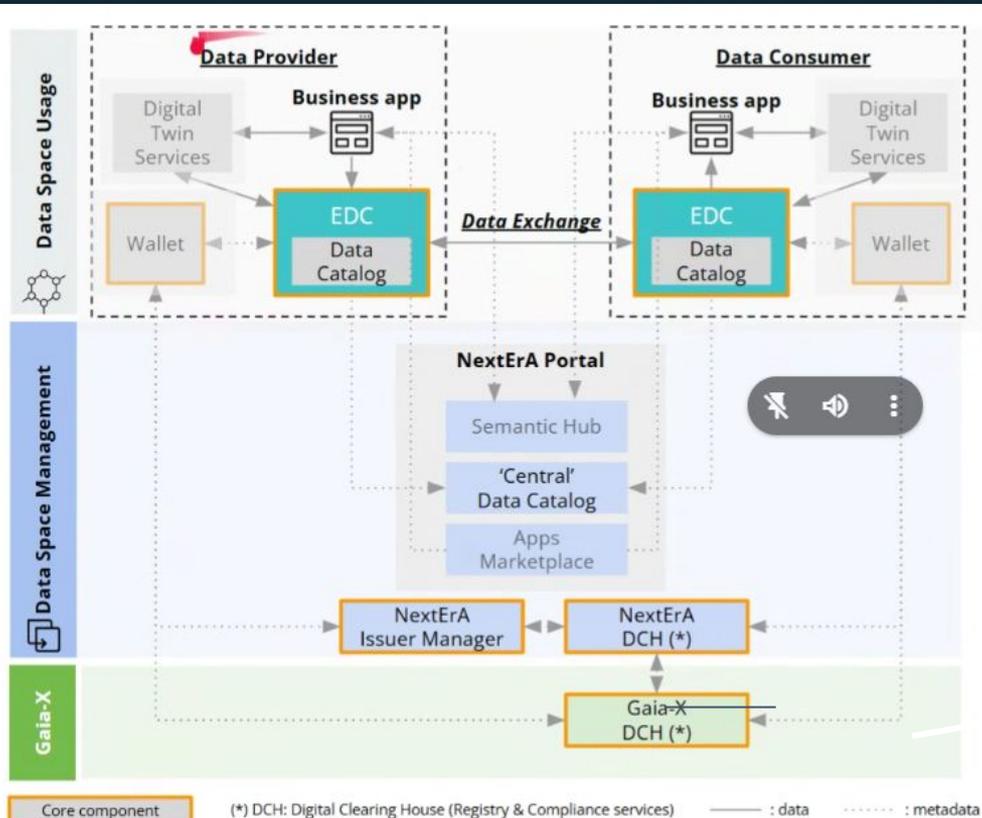
Clearing House

**Authorizes, blocks** or cancels **data exchange** after verifying contractual & technical requirements are met to guarantee sovereignty

Data Contract

**Contract negotiation** and **registration** to describe under what conditions the Data Provider is willing to make its data available to the Data Consumer.

# The Architecture and the Credentials



2 Oct 2024 | NextErA V0 - Integrated Kick-Off

## What is Gaia-X Label?

A Gaia-X Label is a mark of confidence which reflects the completion of different criteria related to transparency, data protection, security, interoperability, portability, sustainability, and European Control.

## Gaia-X Compliance



### Gaia-X Standard Compliance

A service or product offering is certified **Gaia-X Standard Compliance** upon the successful assessment of all the mandatory criteria related to transparency, security, interoperability, portability and sustainability. Not bound to a specific jurisdiction or industry domain.

**Value:** The provider & consumer can make informed & educated decisions based on information gathered to demonstrate European values.



### Gaia-X Label Level 1

A service or product offering is certified **Gaia-X Label Level 1** if the offering is **Gaia-X Standard Compliance** and fulfills additional European rules related to personal data protection.

**Value:** In addition to the Gaia-X Standard Compliance, the provider & consumer can rely on their mutual declaration of adherence to the European data protection rules.



### Gaia-X Label Level 2

A service or product offering is certified **Gaia-X Label Level 2** if the offering is **Gaia-X Label Level 1** and fulfills additional criteria related to cybersecurity and the service offering needs to have an option for the customer's data to be processed and shared exclusively in the European Economic Area.

**Value:** In addition to the Gaia-X Label Level 1, cybersecurity criteria have been verified by impartial third parties & data can be processed exclusively in the EEA.



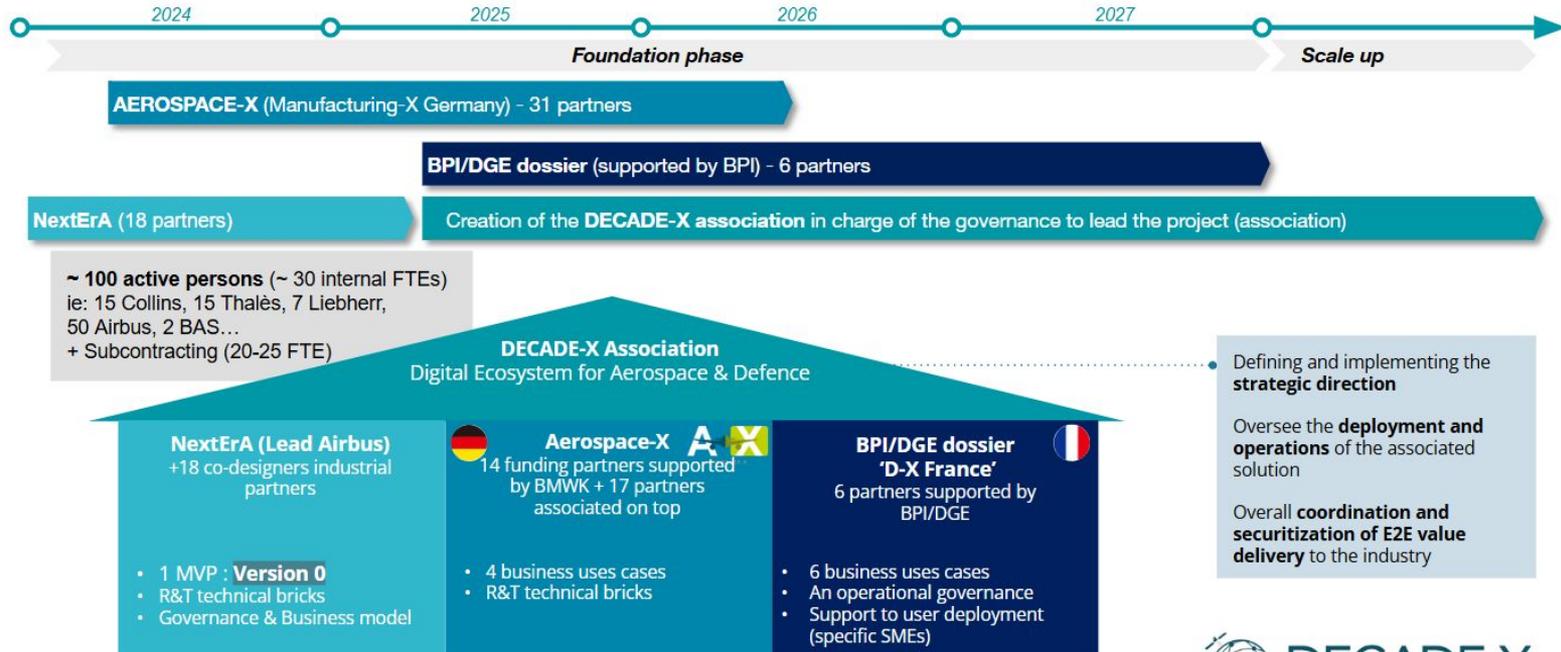
### Gaia-X Label Level 3

A service or product offering is certified **Gaia-X Label Level 3** if the offering is **Gaia-X Label Level 2**, the consumer's data are processed and shared exclusively in the European Economic Area and the headquarters and the main establishments of the service provider are located in the European Economic Area.

**Value:** On top of the Gaia-X Label Level 2, the data is processed exclusively in the EEA & cannot be accessed by parties from outside the EEA.

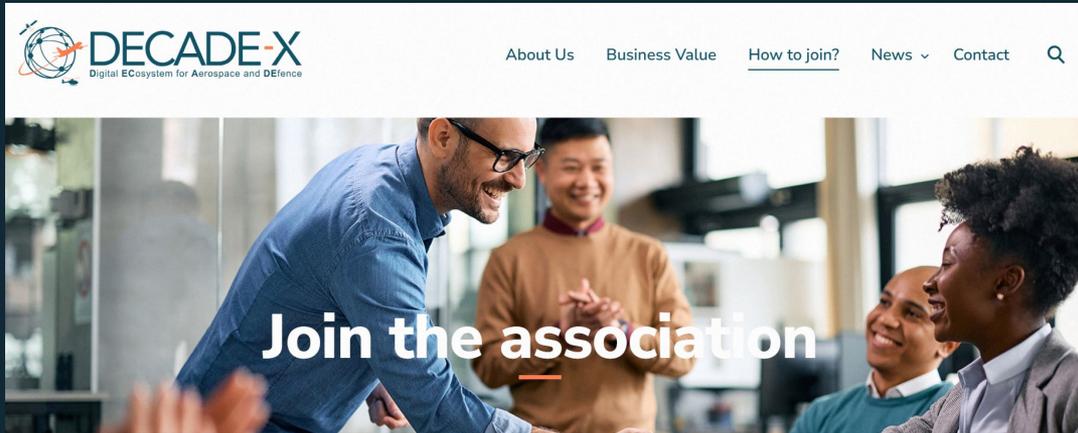
# Our Association

Our strategy was to **federate local and national initiatives** to engage the launching phase of development & deployment of our ecosystem



# Join the Association!

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<https://www.decade-x.org/how-to-join/>

# Overview

## DECADE-X: The Vision & Alliance

The strategic industry association that creates the master plan, rules, and governance for a unified digital A&D ecosystem.

## Gaia-X: The Trust Framework

The European standard for data sovereignty and infrastructure that provides the foundational principles of trust for NextErA.

### DCH

Digital Clearing House - verifies software and security practices of a Partner

### Compliance

### Data Security

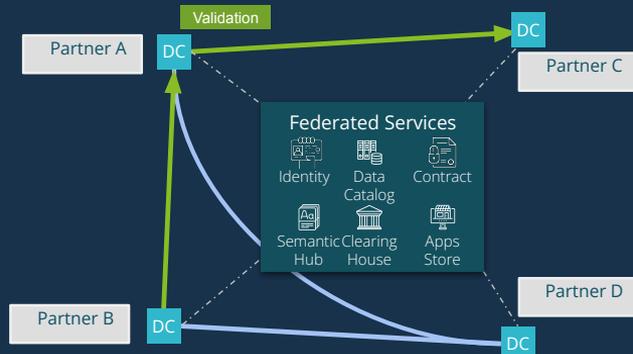
### Transparency & Control

## DECADE-X: The Implementation Project

DECADE-X is the tangible project that builds the Data Space, turning the Decade-X vision into a reality, starting with the V0 pilot.

### The Data Space Ecosystem

A Data Space is a distributed system defined by a governance framework that enables secure, fair and trustworthy data transactions between participants



## The Value: Data Products Exchange & Use case Delivery

The purpose of the data space is to securely exchange valuable, standardized digital assets between partners



DECADE-X Association: Industry Project Leads

AIRBUS



THALES



LIEBHERR

