



Manufacturing-X

The Open Initiative to Build a
Cross-Sectorial Data Ecosystem
for the Industry

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Federal Ministry for Economic Affairs and Climate Action

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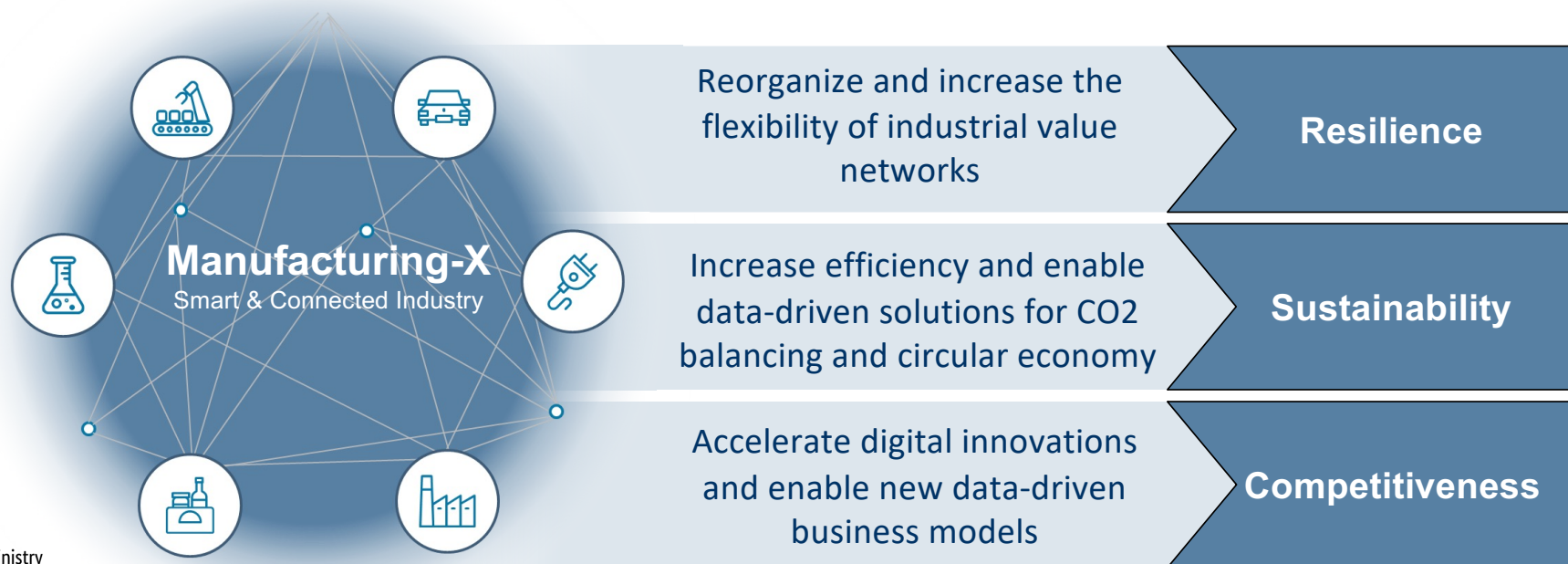
Agenda

- Mission & Motivation
- Key Elements
- Framework
- Community
- Outlook & Next Steps



Mission Statement “Manufacturing-X”

Manufacturing-X will implement the open, decentral and collaborative Industrial Data Space for Industry 4.0 across all industrial sectors.



Why Manufacturing-X?

Challenges to cross-industrial digital cooperation

Interoperability	Fragmented landscape of data silos and small-scale, incompatible data spaces
Regulatory Framework	Legal uncertainty and lack of proven legal frameworks for multilateral data exchange
Culture and Mindset	Lack of trust between actors in data spaces to share their data
Degree of Digitalization	Low overall digitalization of SMEs and low accessibility of digital solutions

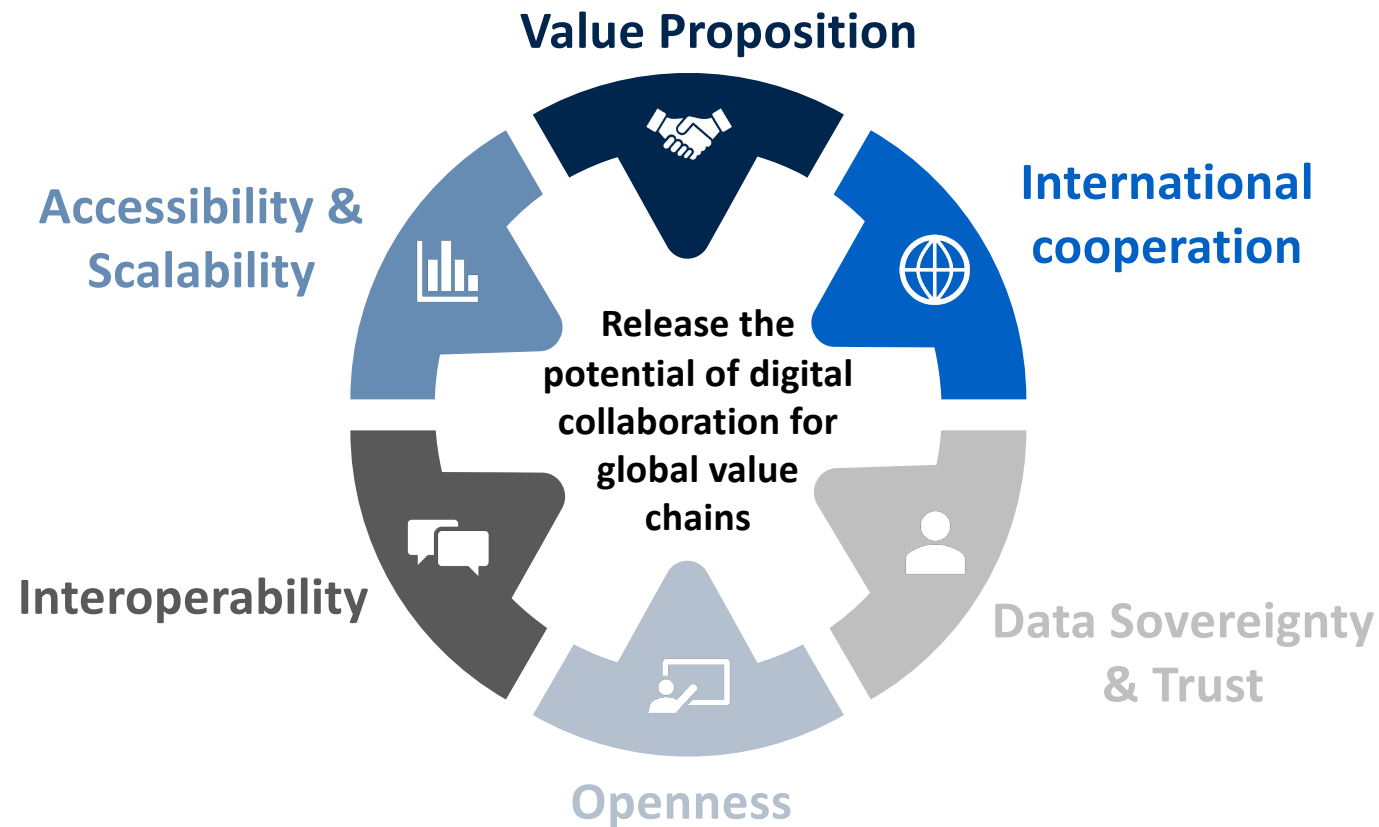
Need to act – Digital and ecological transformation

Value Creation	Increasing share of data economy in industrial value creation
Industrial Competitiveness	High labor costs, skills shortage, high energy costs,...
Data-Economic-Regulations	Data Act, Data Governance Act, Cyber Resilience Act,...
Geopolitical Context	Increasing importance of supply chain resilience
Environmental context	Rising need to combat climate change and reduce ecological footprints



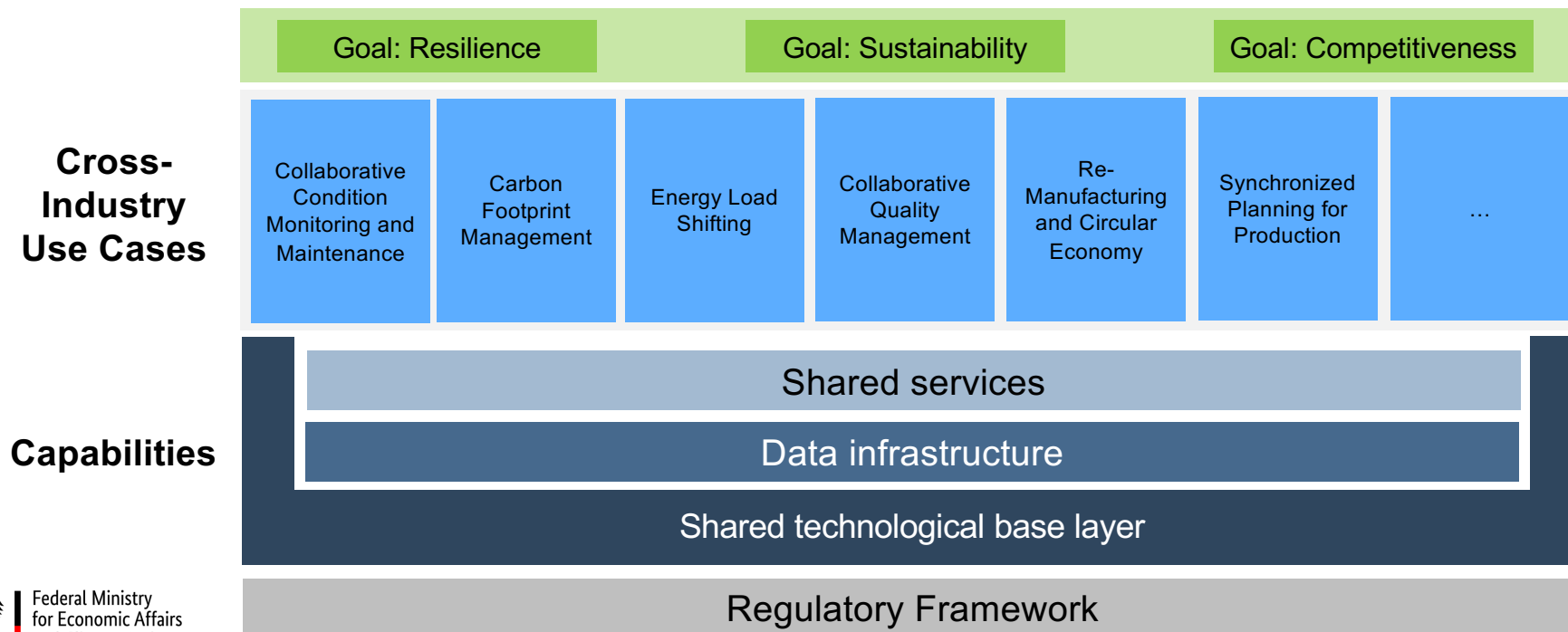
Solutions to these challenges can only be found together. Manufacturing-X aims to bring the industry together and facilitate cooperation over cross-industrial supply and value chains.

Key Success Elements



Manufacturing-X Framework

Manufacturing-X aims to implement important cross-industrial use cases on a common framework.



Manufacturing-X and Catena-X

Catena-X is building the first open and collaborative data exchange ecosystem for the Use Case “automotive supply chain”.

Facts & Figures

- Start R&D project in August 2021, end date July 2024
- R&D project volume of 244M Euro
- 28 members in project consortium
- “Catena-X Association” founded in May 2021, currently 144 members (01.03.23)
- First governing operating company “Confinity-X” appointed in February 2023

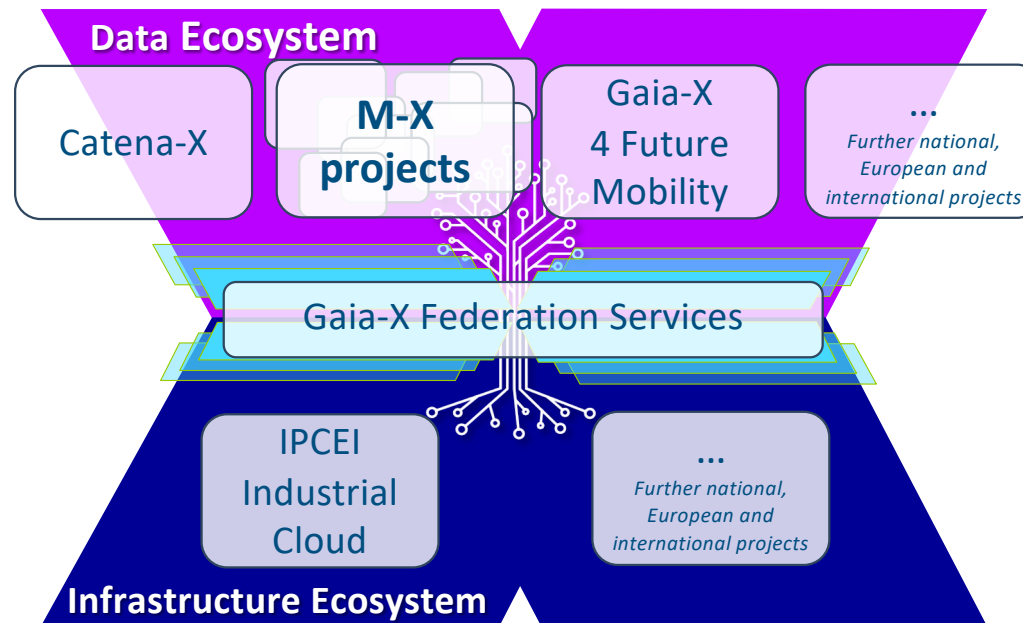
Manufacturing-X can use the Catena-X Data space and utilize the learnings of Catena-X as a **blueprint** with regard to:

- Project structure and community approach
- Technological building blocks
- Operating models
- Internationalization



Manufacturing-X and Gaia-X

Manufacturing-X will be the first implementation of a Gaia-X compatible data ecosystem on a cross-industrial scale.



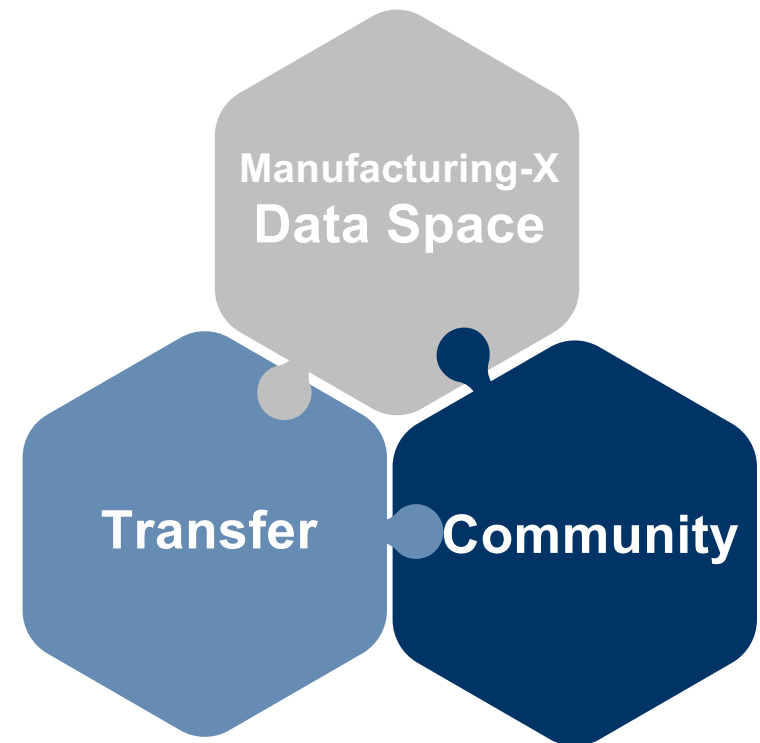
Excerpt of Gaia-X related funded projects

Transfer and SME Participation

The initiative Manufacturing-X not only encompasses the technical implementation of a cross-industry data ecosystem but also efforts to transfer the results and build an (international) Manufacturing-X community.

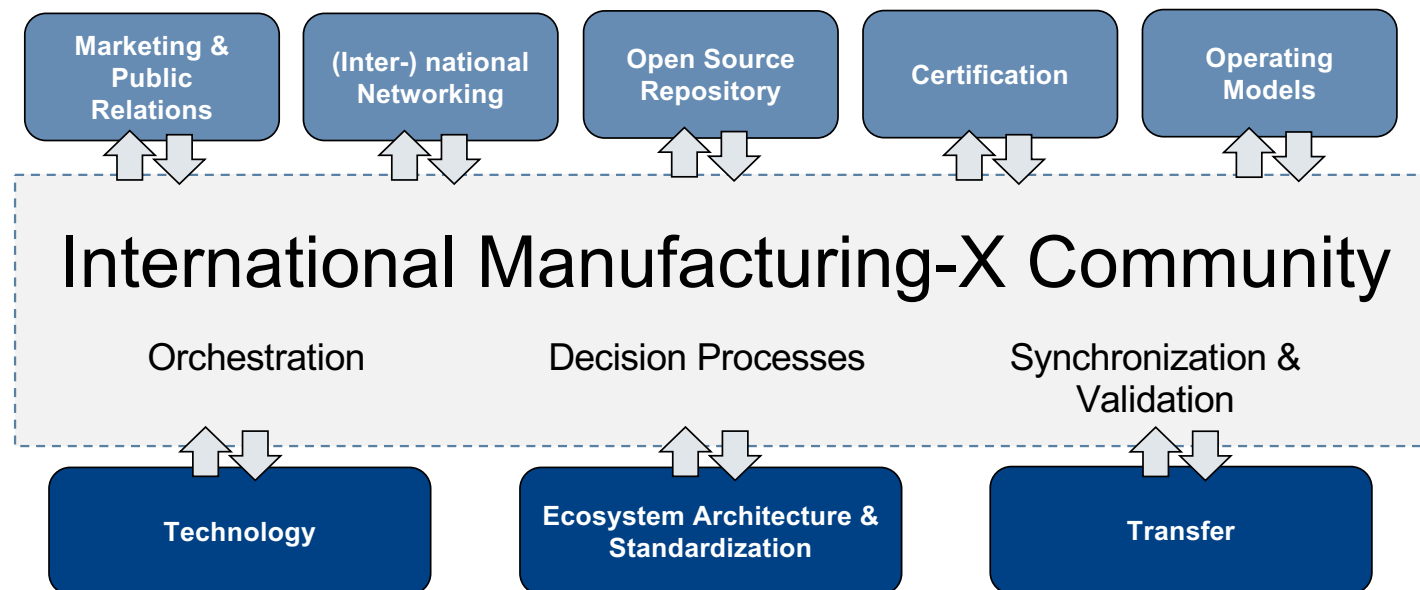
It aims to...

- Facilitate SME participation via needs-oriented applications and “plug & play” solutions
- Build structures to orchestrate R&D activities and coordinate the transfer of solutions from R&D projects to potential users



Manufacturing-X Community

Manufacturing-X should develop into an open and community-driven initiative that includes European and international partners.



A possible structure for the Manufacturing-X community as described by Plattform Industrie 4.0 in the "Whitepaper Manufacturing-X"
 (see https://www.plattform-i40.de/IP/Redaktion/DE/Downloads/Publikation/Manufacturing-X_lang.pdf?__blob=publicationFile&v=6)

Current Status & Next Steps

Key elements of a Manufacturing-X community are currently under development. The first R&D projects should launch in Q4 2023.

**Join us at
#HMI23!**

Hall 8, Stand D26

**April 2023
Presentation of the initiative
at Hannover Messe 23**

**December 2023
Launch of the first funded
R&D projects**

**February 2, 2023
Establishment of the Steering
Committee for Manufacturing-X
(SC4MX)**

**Ongoing
Development of a Funding Concept for
Manufacturing-X at BMWK**

**March 28, 2022
Resolution of the PI4.0 Steering Group
for the establishment of the
Manufacturing-X initiative**



Thank you!

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