



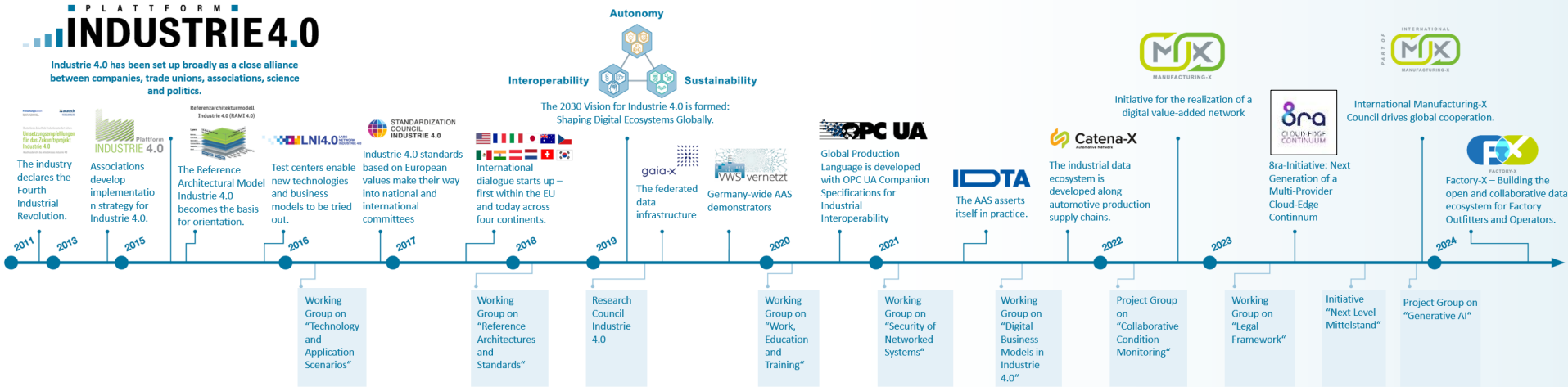
Federal Ministry
for Economic Affairs
and Energy

Status-quo in Germany:

A holistic approach to foster data ecosystems

Markus Heß, Federal Ministry for Economic Affairs and Energy

Timeline: Industrie 4.0 achievements in Germany



„10 years fo successful collaboration with RRI in Japan!“

Political and economical impact

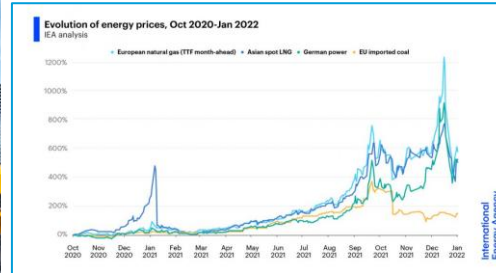
Resilience of supply chains



Sustainability



Gain competitiveness



Cooperation to be successful together! Digital collaboration between companies and industrie sectors must be standardized and easy to use.



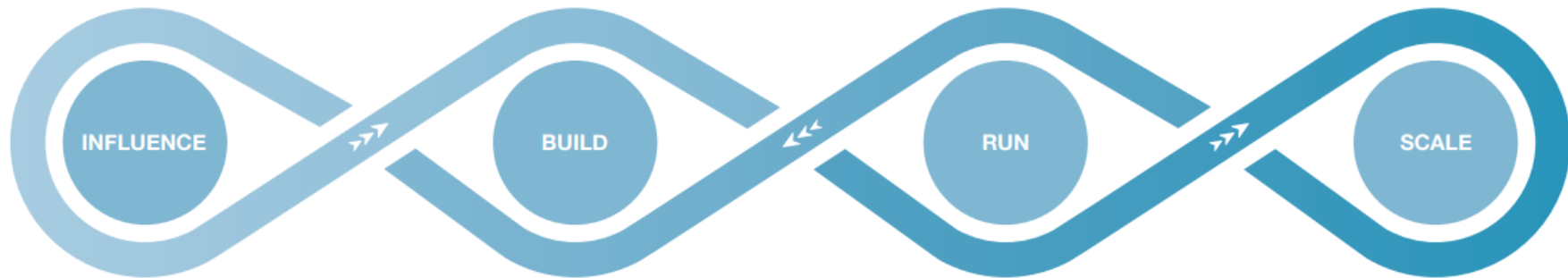
Objectives of Manufacturing-X

Manufacturing-X features and open, federated and decentralized Data Ecosystems for Industrie 4.0 with an overarching to include all industrial sectors.



Foundation for Data Ecosystems:

Building blocks for a systemic approach

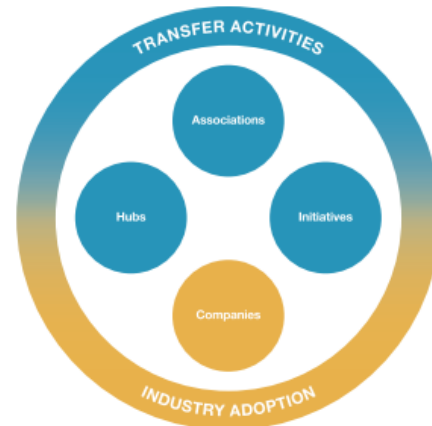
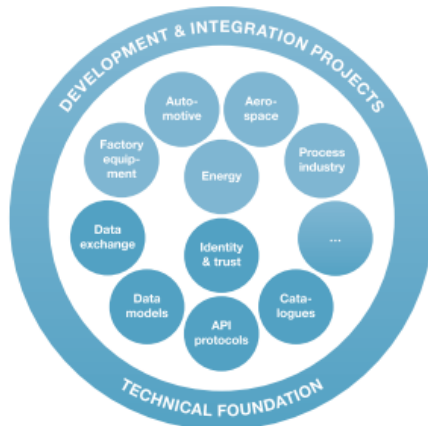


ALIGN OBJECTIVES & VISION | AGREE
GOVERNANCE & RULES | DESIGN
CONCEPTS, PRINCIPLES & ROAD MAPS

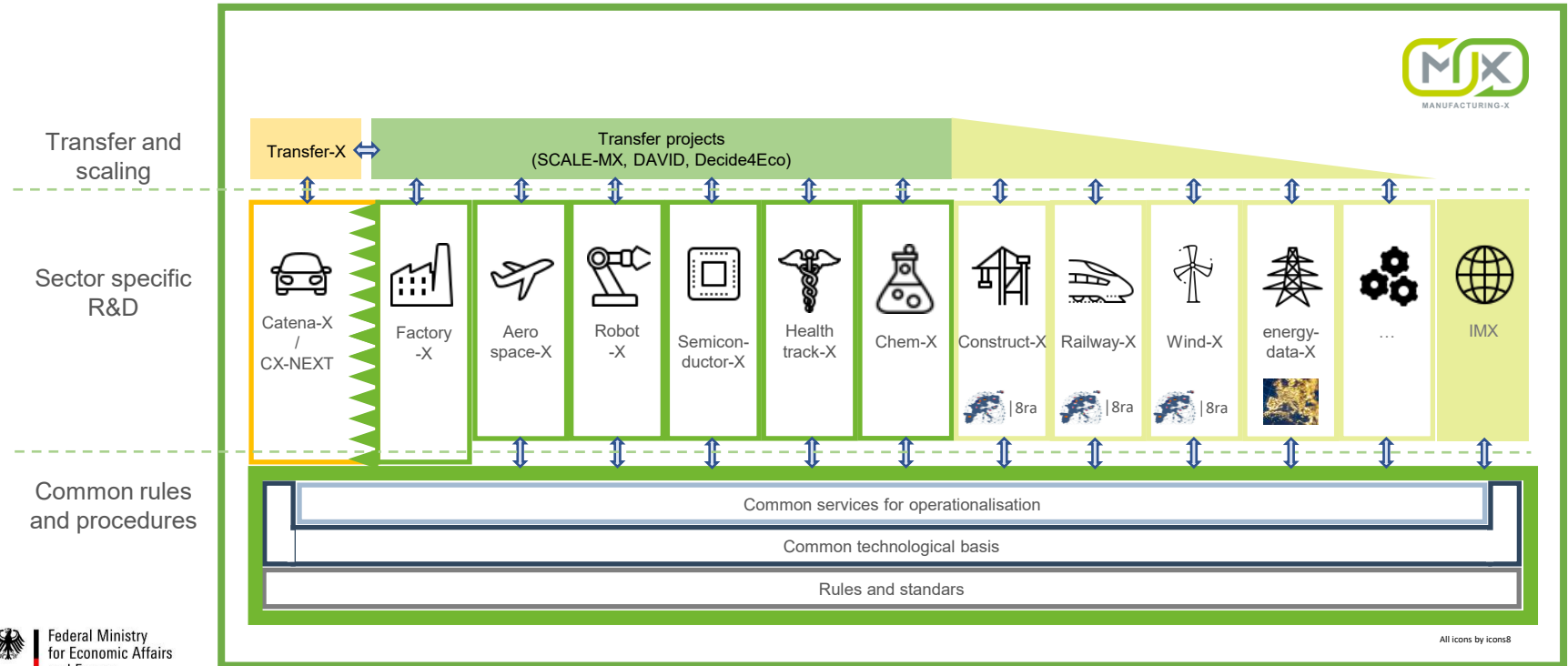
DEVELOP OSS COMPONENTS WITHIN THE
COMMUNITY TO SUPPORT USE CASES |
INTEGRATE TECHNICAL BUILDING BLOCKS

SECURE AND TRUSTED OPERATION
OF ENABLING AND VALUE-CREATING
SERVICES IN A DISTRIBUTED MODEL

SME SUPPORT ACTIVITIES | CONSULT &
TRAIN | PROVIDE TEST BEDS &
TEST SUPPORT | USE CASE ROLL OUT



Holistic approach and overview of projects



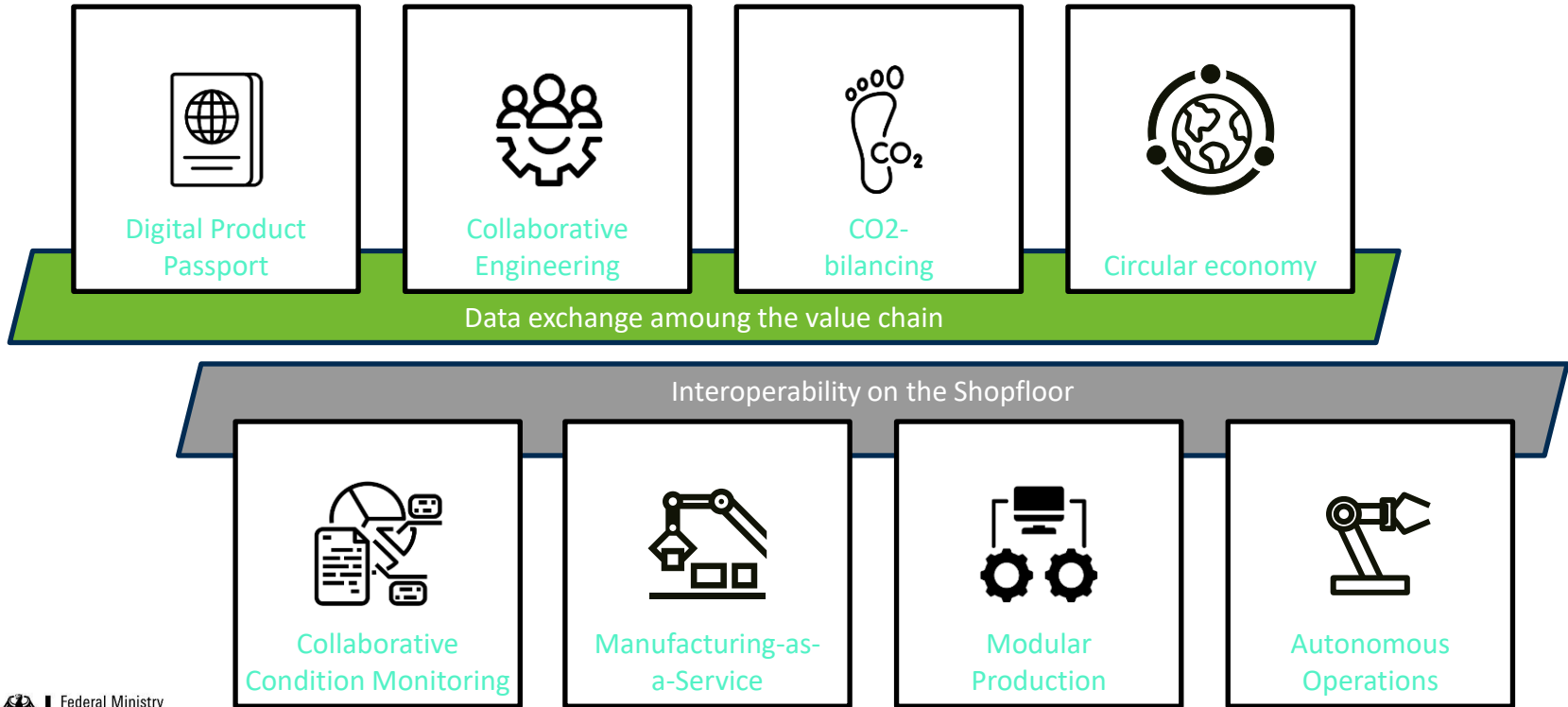
Overview of funded projects in Germany

Project	No. of partner	Duration	Sectors concerned
	47	02/24 - 06/26	Manufacturing
	14	04/24 - 06/26	Aviation
 Robot-X	7	04/24 - 06/26	Robotics
	7	04/24 - 09/26	Plastics, Electronics
	15	05/24 - 09/26	Semiconductor
 HEALTH-TRACK-X enabling data-driven innovation	9	05/24 - 07/26	Health
	11	12/24 – 11/26	Chemicals
	11	08/24 - 09/26	Automotive
	5	05/24 - 07/26	<i>Transfer fo AAS</i>
	6	10/24 – 09/26	<i>Transfer</i>

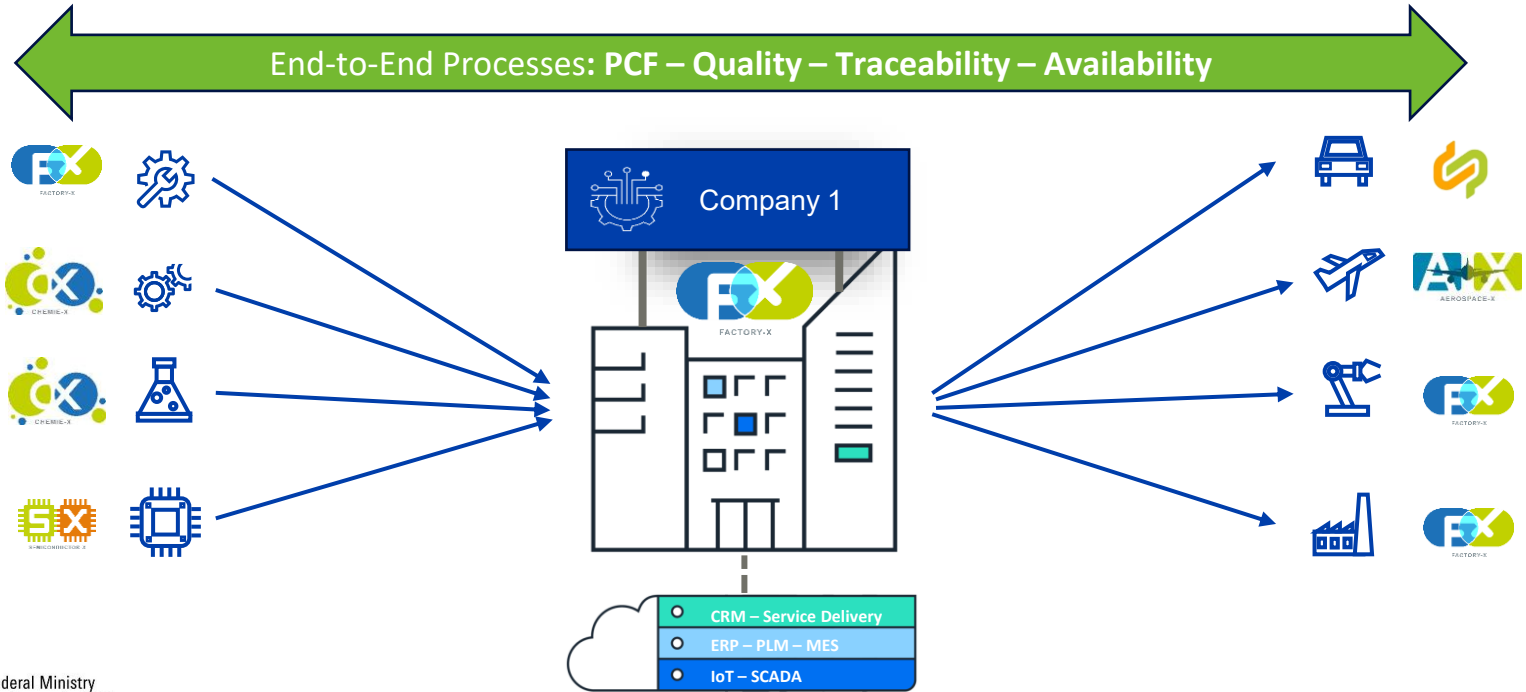
-> All Project volume
approx. 300 M EUR

-> Public funding
approx. 145 M EUR

Cross sectorial Use-Cases



Objective: Interoperability between sectors



Outlook



2025

„Build it“

Setting up of interoperable
Daten Ecosystems



2026

„Run it“

Operationalization of cross
sector Data Ecosystems



2027

„Scale it“

Scaling to more sectors

Strategic priorities for the upcoming years

- **Artificial Intelligence as enabler:**

AI will gain a crucial competition impact → Creation of a industrial AI-Ecosystem

- **Data driven value creation:**

Utilization of Data Ecosystems will be foundation for new innovativ solutions in manufacturing. Data Ecosystems like Manufacturing-X enable secure and cross sector collaboration.

- **Strategic independency and impact of infrastructure, based on Cloud and Edge:**

Strategic independence in critical technologies is a prerequisite of future competitiveness. A sovereign use of cloud & edge, micro electronics, and open AI platforms ensure freedom of action. Strategic investments aims to build a leading digital ecosystem by 2035 that drives innovations globally.

Invitation to Hannover Messe 2026





Federal Ministry
for Economic Affairs
and Energy

THANK YOU!!!

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