

International Manufacturing-X Council

Why – What – Who – How

Why?

Challenges and Opportunities for Global Manufacturing Industries

In light of increasing **digitalization** and the resulting requirements, manufacturing throughout the world is facing **unprecedented challenges** and **opportunities**. The **real and virtual world** will continue to **coalesce**. The **entire value chain** will be **integrated and supported by digitalization**, from product, production and process design to on-site customer service and circularity – across locations as well as company and national boundaries.



Deployment needs customization across an infrastructure continuum from cloud to edge, depending on the applications.



Information sharing and data-driven collaboration among manufacturing initiatives are becoming more relevant for impactful manufacturing data networks.



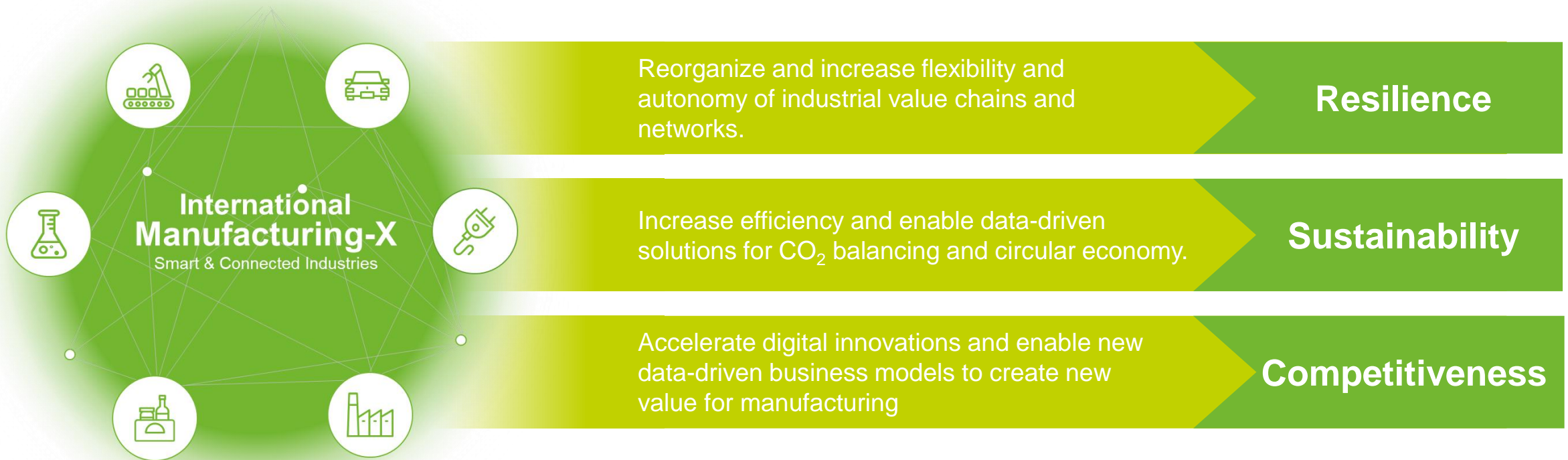
Harmonized standards facilitate business scale-up of data ecosystems, which are becoming essential.

No country, no initiative, no company can achieve this on its own!

Motivation & Big Picture

International Manufacturing-X (IM-X): Make Data Work

IM-X will implement a federated, decentralized and collaborative data ecosystem for smart manufacturing. Open, global and cross-sectoral.



Motivation & Big Picture

Foundational Framework for IM-X

A common guideline for IM-X activities and international stakeholders.

Strategic Goals

International Manufacturing-X develops the foundations for a resilient and competitive industry in a sustainable society.

Resilience

Sustainability

Competitiveness

Business Models

International Manufacturing-X enables innovative business models based on a interoperable data-ecosystems

Digital Products and Services

Everything as a Service

Exemplary Cross-Industry Use Cases

International Manufacturing-X addresses cross-industry use cases based on a collaborative use of data with high economic and ecological impact.

Product Innovation, Collaboration & Product Optimization

Autonomous Factory

Supply Chain, Transparency & resilience

Energy & CO₂-Management

...

...

...

Capabilities

International Manufacturing-X enables development and deployment of fundamental services driving the federated data ecosystem.

Shared Services

Constraints

International Manufacturing-X builds on a common technical, organizational and legal framework and contributes to the future development in cooperation with international law.

Foundation

International Manufacturing-X defines global standards and runs a basic technical infrastructure to guarantee interoperability and sovereignty.

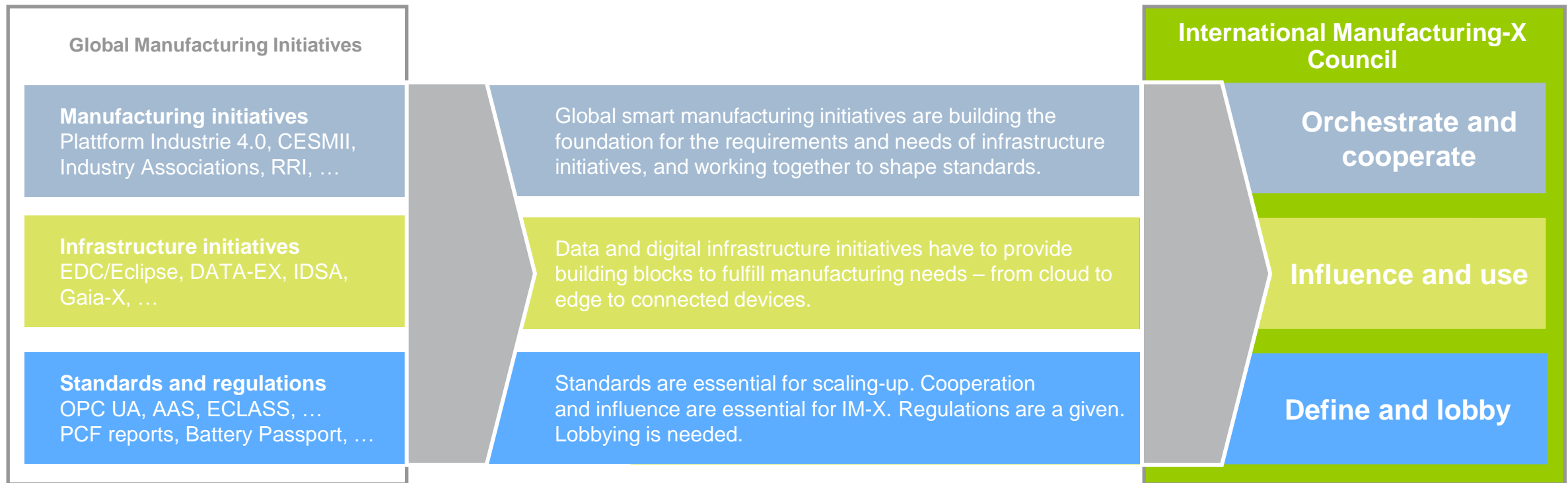
Shared Technological Base Layer

Regulatory Framework and Standards

Motivation & Big Picture

Landscape of Initiatives in the Context of global manufacturing

Manufacturing-X is international. Our intention is to trigger international R&D, partnerships, cooperation, standardization and deployment with and for customers globally.



Vision

The Threefold Vision Behind IM-X



1.

Connect value chains and manufacturing data networks across industries and countries.



2.

Implement global foundations for data-driven resilient, sovereign and climate-neutral production covering the full life cycle of production and products.



3.

Enable innovative value creation in an interoperable and sovereign data ecosystem.

Mission

The IM-X Mission: Make Data Work at a Global Scale, Across Industries and Stakeholders

IM-X will implement a **federated**, **decentralized** and **collaborative** data ecosystem for smart manufacturing. It aims to enable **open**, **global** and **cross-sector** international operation of **cost-effective** data networks.

This can be realized through **3 main lines of activity**:

1. Facilitate use cases on the collaborative use of industrial data for all manufacturing industries.
2. Develop the requirements, influence international standardization and framework development for basic infra-structure to deploy federated data-ecosystems for manufacturing.
3. Provide guidelines to leverage easy-to-use applications and dynamically scale the ecosystems.

How?

Establishing the International Manufacturing-X Council

Open collaboration, inclusiveness, transparency and equal treatment of all the partners inside this international Manufacturing-X ecosystem are key!

The **International Manufacturing-X Council** will determine collectively what is needed, what to do and who is responsible.

One Country, One Vote

What?

The IM-X Council: A Co-Design and Unified Effort Driven by an International Ecosystem

- Develop a joint understanding of data-spaces.
- Connect and cooperate with other initiatives that are relevant to manufacturing (e.g. energy, logistics, mobility, etc.).
- Open exchange of regional initiatives (specific projects, opportunities, etc.).
- Define a joint framework for interoperable IM-X (technology, standards, etc.) that manufacturing product/solution architecture can build upon.
- Drive international harmonization and standardization (consensus based and de-facto based).
- Discussion of use cases and joint projects where appropriate.
- Joint conferences and events.
- ... and other topics

Who?

Initiatives Involved in Establishing the IM-X Council



... and more to come



First Concept Ideas

IM-X Council: Open collaboration, inclusiveness, transparency and equal treatment of all partners are key!

- Countries are represented by council members, selected by their respective industry initiatives, and speaking with one voice.
- One country, one vote. Agreements should be consensus based.
- The Council will have 2 speakers, from 2 different countries and at least one from industry. They are selected every 2 years on a rotating basis.
- Government involvement is highly welcomed (national and regional level).
- Membership in the IM-X Council is open to additional countries!
- The exact structure of the IM-X Council will be further developed together.

Call for participation

International Manufacturing-X Council: Make Data Work

Hartelijk dank

Thank you!

Muito obrigado

Merci beaucoup

ありがとうございました。

Σας ευχαριστώ πολύ

Tack så mycket

Dziękuję bardzo

Grazie mille

Vielen Dank!

Köszönöm szépen

Mange tak skal du have

Ďakujem veľmi pekne

감사합니다

Muchas gracias

Děkuji mnohokrát

Next Steps

International Manufacturing-X Council

1. Kick-off meeting IM-X Council with all partners. 18/19 January 2024
2. Further define IM-X Council collaboration process
3. Identify collaboration topics

Call for Participation
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