Webinar on Data Space in Manufacturing

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7 December 2022

Data Space 4.0 is a flagship initiative of

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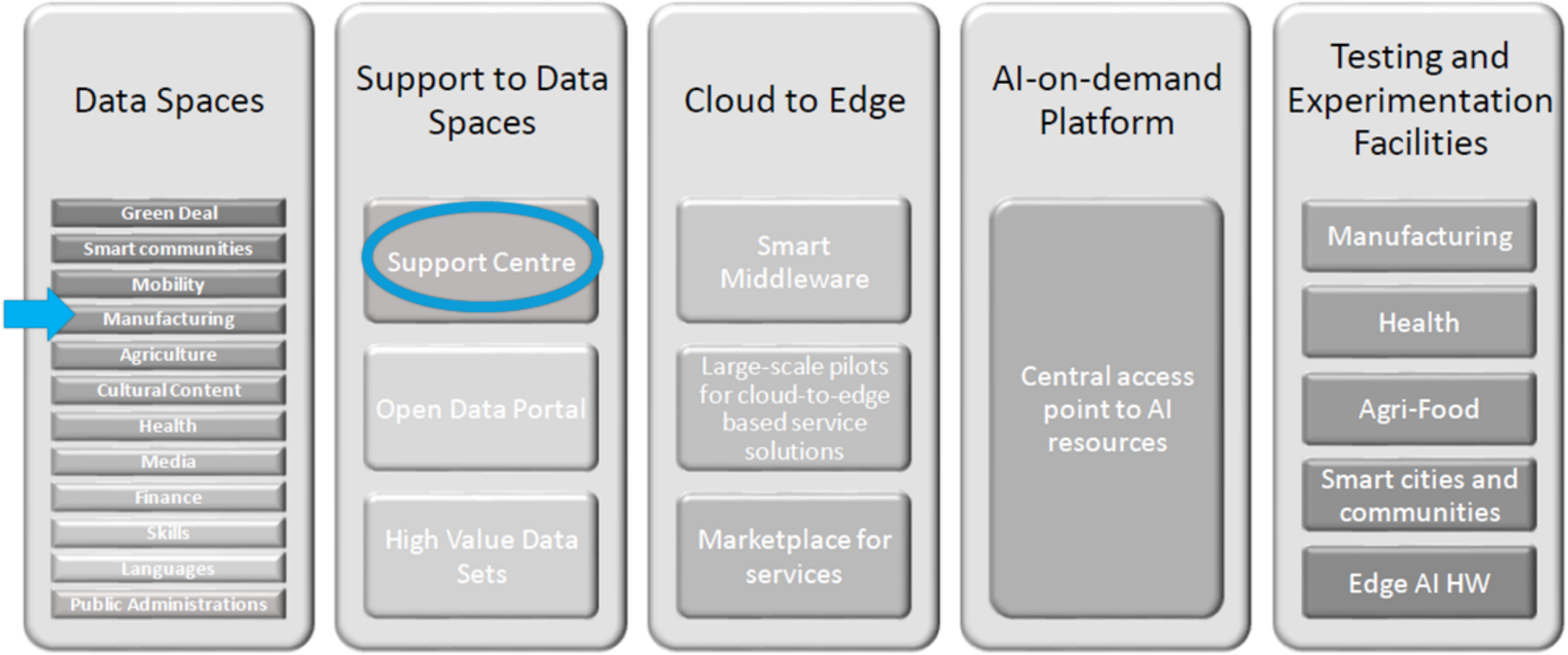
01 DATA SPACE 4.0 IN A NUTSHELL

BACKGROUND



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DATA SPACE 4.0

A **EU**ropean Common **D**igital M**A**nufacturing Infras**T**ructure and Dat**A** **S**pace **P**athway for Connected Factories **4**.0 Data Value **C**hain Governanc**E**

Project No: 101083939

Duration: 15 Months

Start Date: 1st October 2022

Partnership: 13 Partners, 1 Associated Partner, 30+ Global Collaboration Partners

Strategic Objective: DIGITAL-2021-CLOUD-AI-01-PREP-DS-MANUFACT

Total Budget: 999 665.69 €

EC Contribution: 999 665.69 €

Project Website: https://manufacturingdataspace-csa.eu

Community Website: https://digitalfactoryalliance.eu

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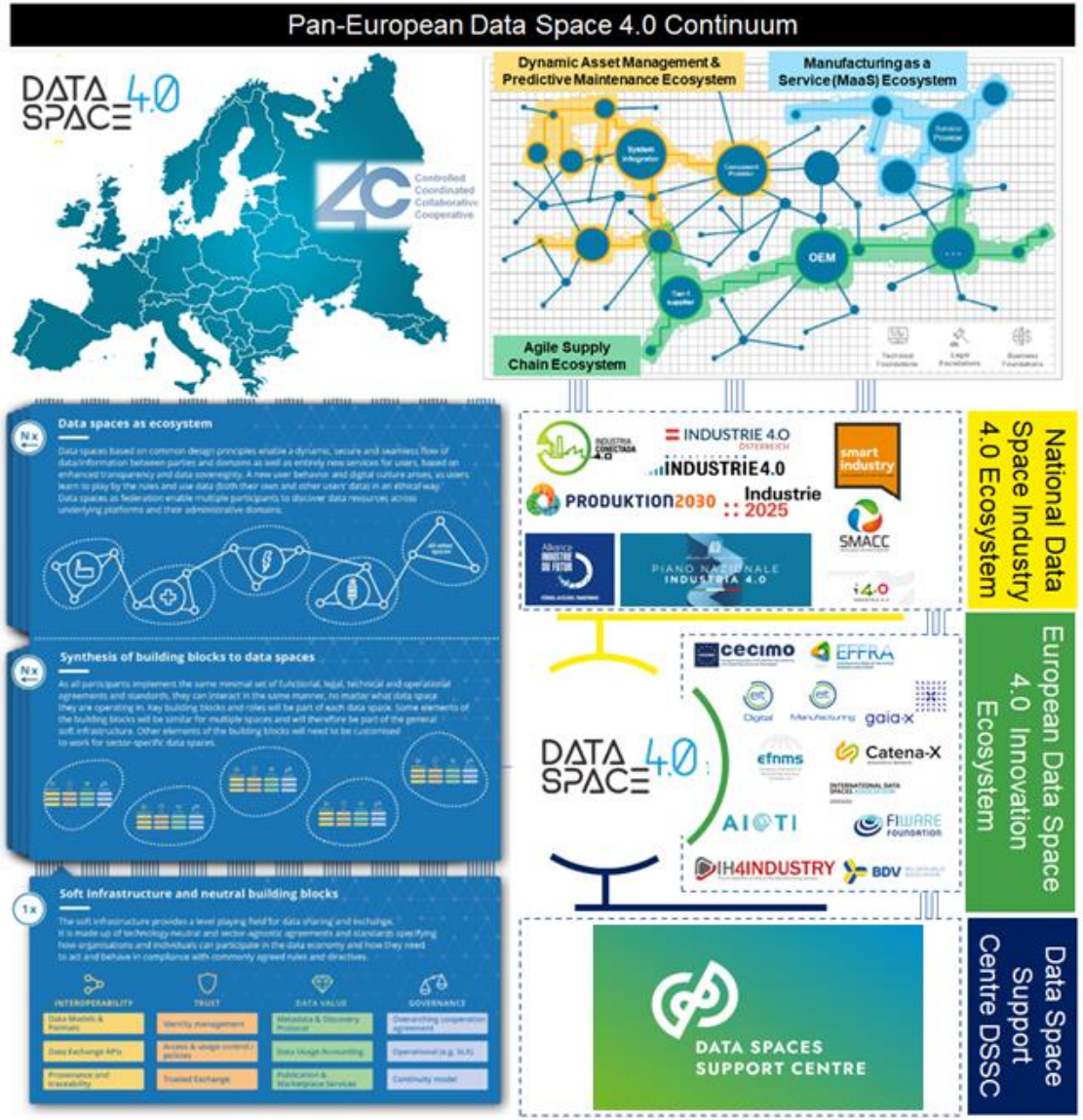
CONNECT



10 National Initiatives

100+ Events

3 Joint DSCC – EU Data Space Workshops

2 EU Data Space 4.0 Weeks

2 DIH/TEF Partnership Programmes

35 Ethnographic Analysis

1000+ Stakeholders

200 Smart Data Sets

10 DVC Reference Scenarios

4 Certifiable Blueprints

5 Vocabulary Areas Prioritised & Aligned

4 Catalogues/Inventories

2 Business Model Navigators

1 Data Space 4.0 MVP

1 Skills Development Programme

10 Bootstrapping Actions

98% Industry 4.0 Activates Impacted at EU Level

1 Data Space 4.0 Alliance

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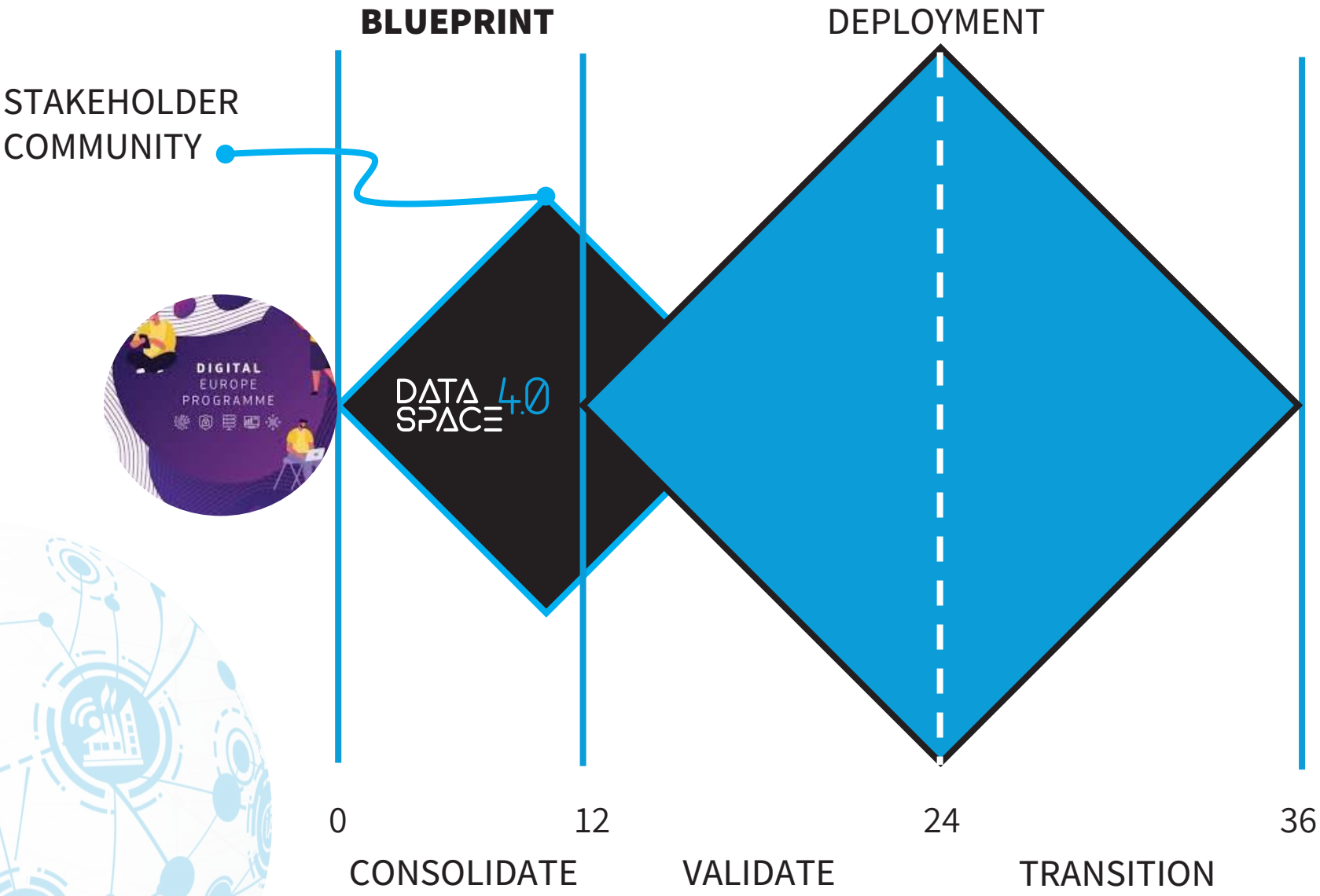
MISSION



https://www.connectedfactories.eu/video/data-space-pathway-video

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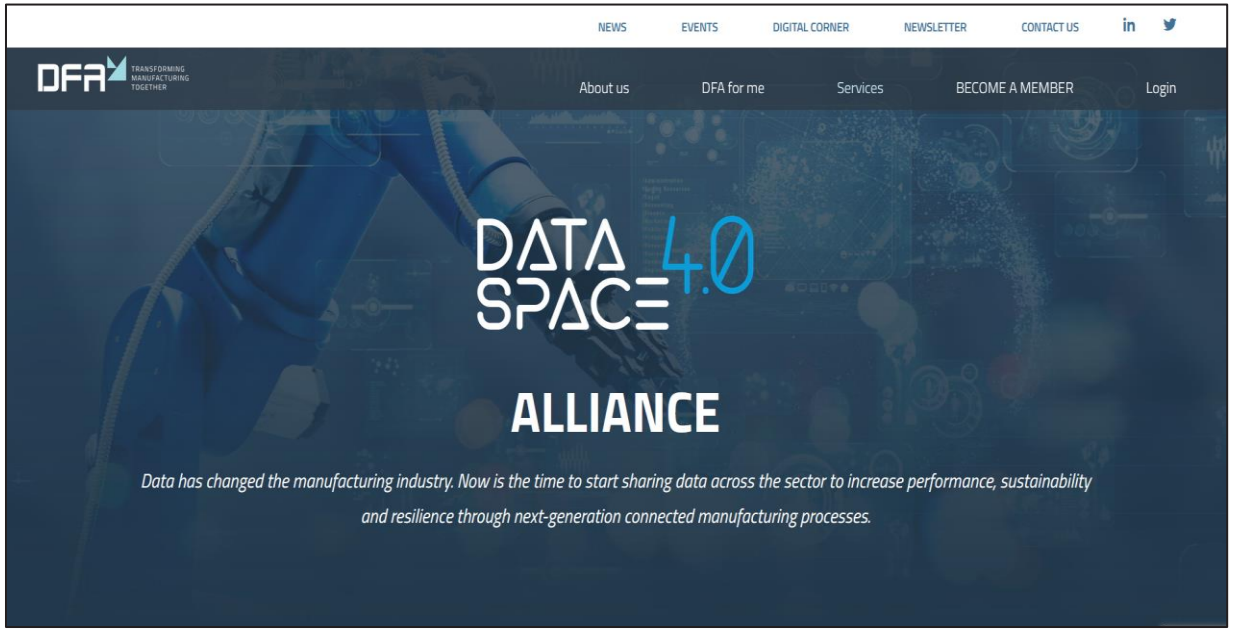
CONNECT

Project Website

https://manufacturingdataspace-csa.eu

Data Space for Manufacturing Community



https://https://digitalfactoryalliance.eu/data-space-4-0-alliance/

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CONSORTIUM MEMBERS

DATA SPACE 4.0

innovalia ASSOCIATION

VDI | PLATTFORM INDUSTRIE 4.0

cea | Alliance INDUSTRIE DU FUTUR

INDUSTRIE 4.0 ÖSTERREICH | Fondazione Politecnico di Milano

Brainport Industries | smart industry

INTERNATIONAL DATA SPACES ASSOCIATION

FIWARE FOUNDATION

ENGINEERING THE DIGITAL TRANSFORMATION COMPANY

UNPARALLEL

IDC

SQS SOFTWARE QUALITY SYSTEMS

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ASSOCIATED & COLLABORATION PARTNERS

DATA SPACE 4.0

SIEMENS

INDUSTRY COMMONS

IOF

COMAU

ATLANTIS ENGINEERING

EFFRA
EUROPEAN FACTORIES OF THE FUTURE RESEARCH ASSOCIATION

cecimo
European Association of the Machine Tool Industries and related Manufacturing Technologies

VTT

SMACC
DIGITAL BOOST FOR FINNISH INDUSTRY

SWITZERLAND INNOVATION

Industrie :: 2025

GAIA

meditech
COMPETENCE CENTER

UNINOVA

i4.0
INDÚSTRIA 4.0

PRODUKTION2030

eurecat
Technology Centre of Catalonia

4.0
PROACCIÓ

GENERALITAT VALENCIANA

agenda indústria 4.0
Comunitat Valenciana

BAI DATA
INTERNATIONAL DATA SPACES ASSOCIATION

efnms
European Federation of National Maintenance Societies vzw

CONFINDUSTRIA

ZVEI:

IDTA
Industrial Digital Twin Association

VDMA

LNI4.0
LABS NETWORK INDUSTRIE 4.0

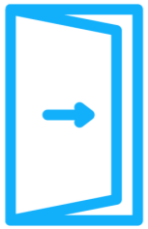
STANDARDIZATION COUNCIL INDUSTRIE 4.0

tice.pt
PÓLO DE COMPETITIVIDADE DAS TECNOLOGIAS DE INFORMAÇÃO, COMUNICAÇÃO E ELECTRÓNICA

WORLD MANUFACTURING FOUNDATION

MADE
Competence Center I4.0

bitkom



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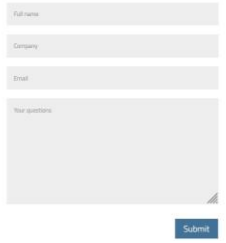

https://digitalfactoryalliance.eu/contact-us/

MISSION

Provide Access to a Set of Comprehensive Tools, Reference Best-practices and Assets To Support Manufacturing Industry To Share Data Securely, Cost-Effectively and With Full Sovereignty

Maintain a Set of Reference Data Space Blueprints For Predictive Maintenance, Agile Supply Chains And Circular Manufacturing.

Maintain a Data Space 4.0 Minimum Viable Framework 4.0 Implementation For Manufacturing Data Spaces For the Benefit of the Community.

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SCOPE

DATA SPACE 4.0

2

Focused Data Value Networks

- Dynamic Asset 4.0 Management & Predictive Maintenance
- Agile Supply Chains
- Circular Manufacturing

5

Sectors Addressed

- Automotive
- Aero
- Electronics
- Textile
- Machine Tool
- Energy, Oil & Gas
- Medical/Pharma
- ……

2

Data Space 4.0 Ecosystems Analysed

- Hierarchical
- Non-Hierarchical

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KEY OBJECTIVES

- Codesign Data Space 4.0 pathway to meet **Data Act data sharing challenges**.
- Set data spaces guidelines for agile supply chains, dynamic asset management and predictive maintenance **data value networks organic growth**.
- Set Data Space 4.0 broad consensus to **accelerate secure, fair and responsible data sharing and reduced operational and maintenance costs**.
- Boost pan-European dialogue for Data Space 4.0 **SME friendliness**.
- Facilitate access to Data Space 4.0 initiatives and legal, business and technical building blocks to **ease Data Space 4.0 adoption**.
- Explore the role of Data Space 4.0 to **support resilient digital product passport (DPP) implementation** and circular manufacturing.

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OUTCOMES

DATA SPACE 4.0

European Data Space 4.0 Alliance & Multi-stakeholder Governance Model for data spaces for manufacturing

Directory of existing manufacturing data space assets, toolkits and blueprints

A **Multi-Step** Roadmap towards deployment of pan-EU data spaces for manufacturing

Data Space 4.0 Canvas of design strategies, business modelling, incentive schemes and best-practices

Reference **Smart Data 4.0 Models. Data Space 4.0 Roadmap**

Data Space 4.0 **Minimum Viable Framework** (MVF)

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02 WHY JOINING DATA SPACE 4.0

PARTICIPATE

DATA SPACE 4.0

Connect with a vibrant data space for manufacturing community

Share strategies, ideas and use cases

Unlock new business models powered by data-sharing

Design multilateral data value chains in manufacturing products, factories and supply chains

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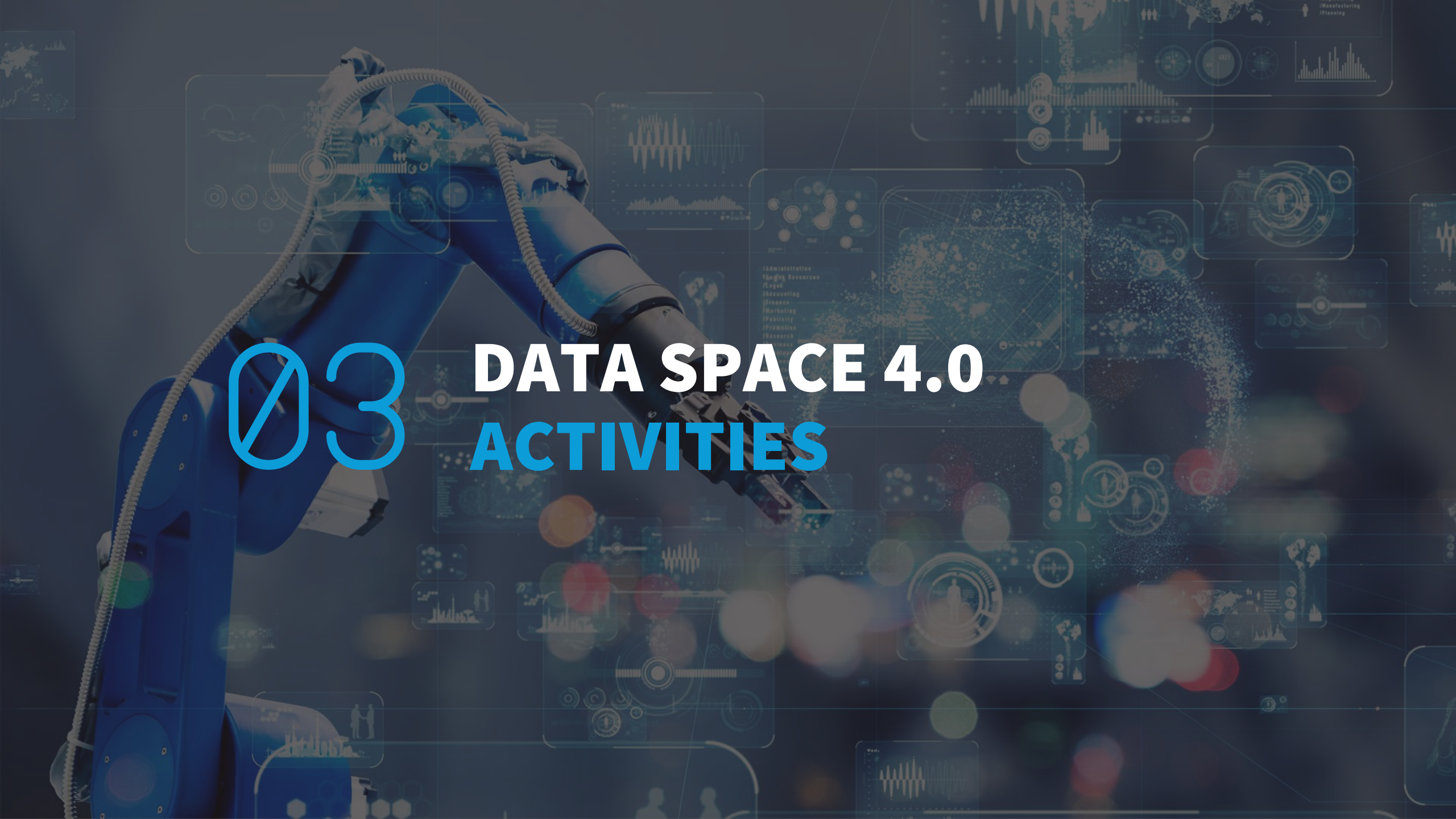

03 DATA SPACE 4.0 ACTIVITIES

COMMUNITY ACTIVITIES

Data Space 4.0 Blueprints

- Certification Programme
- Data Governance

Data Space 4.0 Surveys

- Data Space 4.0 Requirements (Jan 2023, Sept. 2023)
- Ref. Data Value Chain Scenarios.

Physical Events

- EU Data Space 4.0 Unboxing Week (May 2023)
- EU Data Space 4.0 Adoption Week (Sept. 2023)
- DSSC Joint workshops (Feb 2023, May 2023, Sept. 2023)
- National & International Expert Workshops

Virtual Events

- Deep Dive Webinars
- Open Dialogues
- Tech Talks

Data Space 4.0 Roadmap

100+	**Events**
2	**EU Data Weeks**
3	**DSSC Workshops**
4	**Blueprints**
10	**Bootstrapping Programme**

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DEPLOYMENT ACTIVITIES

DATA SPACE 4.0

Data Space 4.0 Directory

- Building Block Catalogue
- Industrial Agreements
- Smart Data Model

Data Space 4.0 Governance

- Data Space 4.0 Alliance

Data Space 4.0 Inventories

- Data Platform Marketplace
- Business Model Navigator
- Maturity Assessment

Data Space 4.0 SME

- (E)DIH Partner Programme
- AI TEF for Manufacturing Partner Programme

Data Space 4.0 Adoption

- Minimum Viable Framework 4.0

1	**Alliance**
1	**Inventory**
1	**Repository**
2	**SME Partner Programmes**
1	**Data Space 4.0 MVF**

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04 DATA SPACE 4.0 ACTIVITIES: GET ENGAGED

Digital Factory Alliance

> *A community to see and be seen, to know and be known*

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ENGAGEMENT ACTIVITIES

		Member	Partner	Follower
Physical Events & Virtual Events	(Co)organise Data Space 4.0 Private Events	YES	--	--
	Attend Data Space 4.0 Private Events	YES	By invitation	--
	(Co)organise Data Space 4.0 Public Events	YES	YES	--
	Attend Data Space 4.0 Public Events	YES	YES	YES
Blueprints	Participate in Committees	YES	By invitation	--
	Access Committee documentations	YES	--	--
	Access public blueprint information	YES	YES	YES
Surveys	Design surveys	YES	--	--
	Launch surveys	YES	YES	--
	Participate in surveys	YES	YES	YES
Roadmap	Define roadmap	YES	By invitation	--
	Consult roadmap	YES	YES	YES

DEPLOYMENT ACTIVITIES

		Member	Partner	Follower
Directory	Contact directory asset owners	YES	---	---
	Contribute asset to the directory	YES	YES	YES
	Consult directory	YES	YES	YES
Governance	Participate in Committees	YES	By invitation	--
	Consult governance model	YES	YES	YES
Inventories	Contact inventory asset owners	YES	---	---
	Contribute inventory to the directory	YES	YES	YES
	Consult inventory	YES	YES	YES
DIH/TEF Partner Programme	Design & Participate in Programme	YES	---	---
Minimum Viable Framework 4.0	Design MVP 4.0	YES	---	---
	Use MVP 4.0	YES	YES	YES

GET ENGAGED

Follow us and participate to open activities

Subscribe to the Data Spaces 4.0 newsletter and be part of the data space for manufacturing journey

Name

Email

Company

SEND

Sign Up for the Data Space 4.0 dialogue now. Be up to date and do not miss anything.

Having updated visibility, news and insights on the latest events, initiatives, assets and blueprints from the data space 4.0 community will help you to connect and develop your own competitive advantage.

https://https://digitalfactoryalliance.eu/data-space-4-0-alliance/

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GET ENGAGED

Join us and shape Data Spaces 4.0

Why you should join the Data Space 4.0 Alliance?

The Data Space 4.0 Alliance will connect your business with a vibrant community where participants will share strategies, ideas and use cases that will help your organisation unlock new data-powered business models and develop or connect to rich data value chains in manufacturing products, factories and supply chains.

The Data Space 4.0 Alliance will maintain a Minimum Viable Product 4.0 implementation for the benefit of the members as well as reference data space blueprints for predictive maintenance, agile supply chains and circular manufacturing.

Data Space 4.0 will provide access to a set of comprehensive tools, reference best-practices and assets to support manufacturing industry to share data securely, cost-effectively and with full sovereignty.

Let's shape data spaces 4.0 together!

Actively engage and become part of the evolution. Steer the Data Space 4.0 deployment.

Connect with your preferred local, national, EU or International initiative or associations collaborating with Data Space 4.0 community and start contributing.

Become a member of the Digital Factory Alliance (DFA) and be a protagonist in the data space for manufacturing journey.

https://https://digitalfactoryalliance.eu/data-space-4-0-alliance/

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PARTICIPATE Pan-EU Mnfg Industry 4.0 Data Platform Inventory

DATA SPACE 4.0

- DS 4.0 will provide a **comprehensive, highly usable and unified manufacturing data platform inventory**.
- A Call to Action. **Expression of Interest** for bringing **YOUR data platform** to the Inventory.
- First step to identify relevant Data Platforms and key stakeholders.
- Workshop to define the Data Platform inventory criteria, ensuring a shared vision on Data Platform key features, assets and building blocks to be detailed in the Data Platform Inventory.

Fill out the Form by Dec 19th and connect (**5 min.**)

https://forms.office.com/e/zE1UrNcXXd

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DATA SPACE 4.0

GRACIAS • THANKS • MERCI • DANKE • GRAZIE • DANK JE • OBRIGADO

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