

Data Spaces Symposium

Unite. Innovate. Adopt.

Assessing the maturity of a data space

14 March 2024 | 15:15 – 15:45

Darmstadt, Germany



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Startin'blox

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2 Maturity assessment

3 Data Spaces Radar

4 Trusted European Media Space (TEMS)

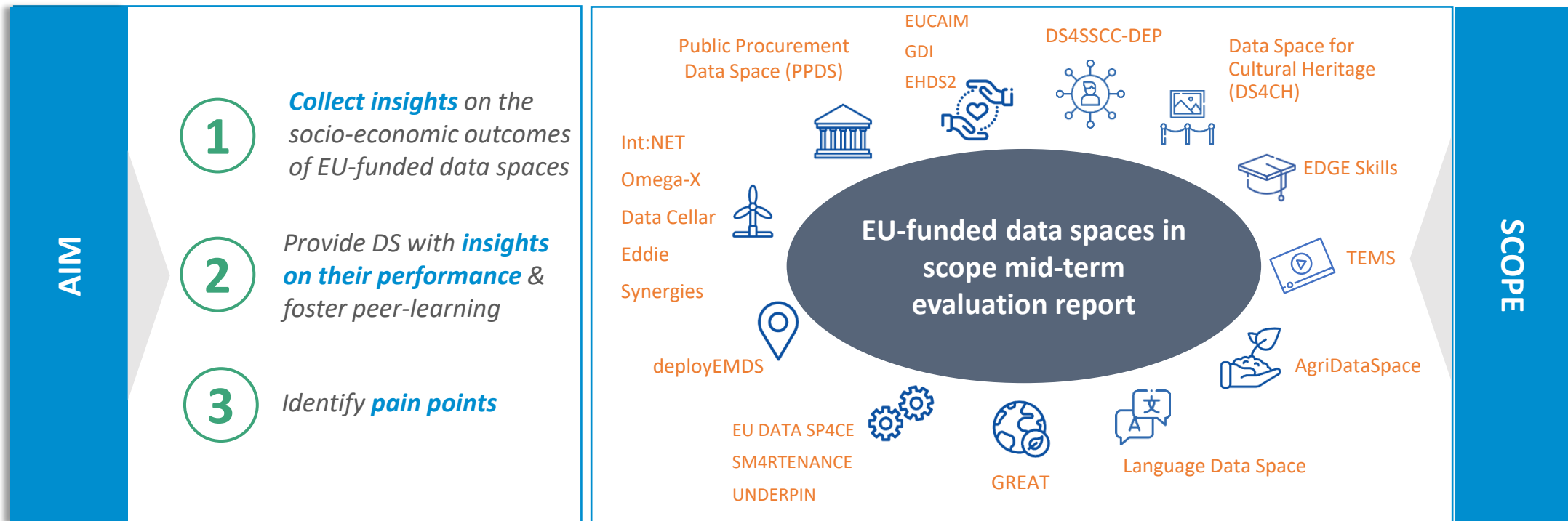
Impact monitoring and evaluation



Impact evaluation purpose and scope

PURPOSE



Evaluate the outcomes/impact of data spaces in the European Union over time and identify improvement areas to help data spaces learn from each other and continuously enhance their performance.



Methodology for impact evaluation

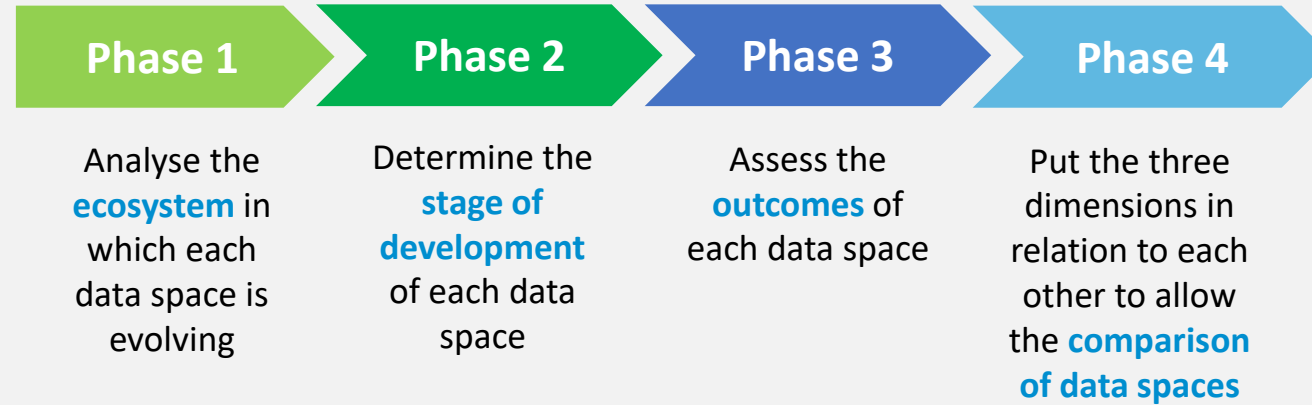
The aim of this methodology is **to evaluate** the socio-economic outcomes of EU-funded data spaces. The maturity level of a data space does not correlate with impact for the EU. It is a dimension considered in the impact assessment as contextual information.

INPUTS

-  Desk research
-  Survey to DS



PROCESS



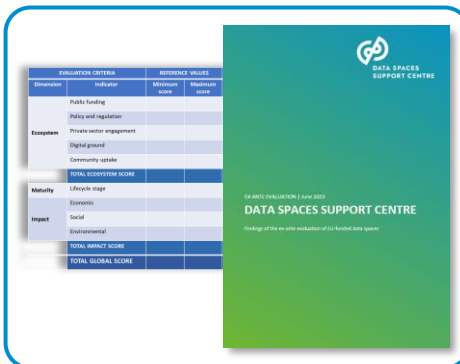
Understand extent to which a DS is supported from a **public, business and societal** perspective

Self-assessment by **data spaces** of the maturity of their initiative along 5 stages

Measure the **economic, social and environmental outcomes** of data spaces

OUTPUTS

- **Ex-ante** evaluation - baseline (*June 2023*)
- **Mid-term** evaluation (2024)
- **Final** evaluation (2025)



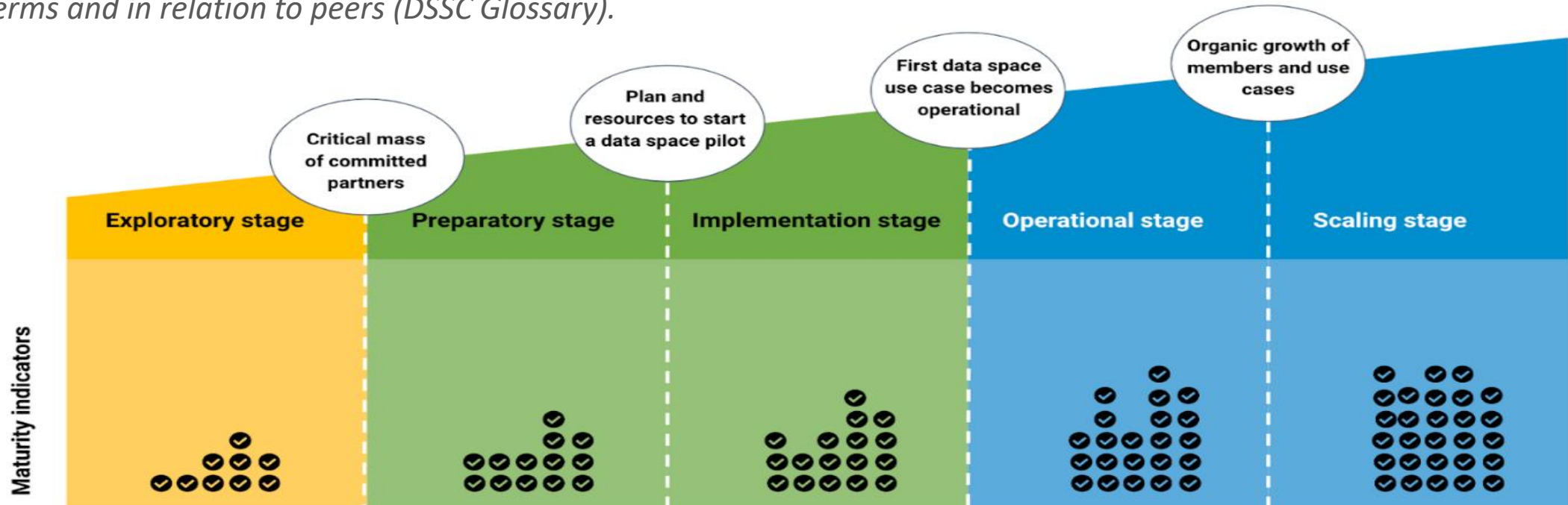
Dimension	Indicator	REFERENCE VALUES	
		Minimum score	Maximum score
Ecosystem	Public funding		
	Policy and regulation		
	Private sector engagement		
Maturity	Digital growth		
	Connectivity capacity		
	Lifecycle stage		
Impact	Economic		
	Social		
	Environmental		
TOTAL IMPACT SCORE			
TOTAL GLOBAL SCORE			

Maturity assessment



Data space maturity model

Set of indicators and a self-assessment tool allowing **data space initiatives** to understand their stage in the **development cycle**, their performance indicators and their technical, functional, operational, business and legal capabilities in absolute terms and in relation to peers (DSSC Glossary).



Maturity indicators

The **development stage** in which a **data space initiative** starts. Typically in this stage, a group of people starts to explore the interest, potential and viability of a **data space**. The exploratory activities may include, among others: identifying and attracting interested stakeholders, collecting requirements, discussing **use cases** or reviewing existing conventions or standards.

The **development stage** that starts when a **data space initiative** has a critical mass of committed partners, and there is an agreement to move forward with the initiative and proceed towards creating a **data space**. It is typical for this stage that such partners jointly develop **use cases** and prepare to implement the data space.

The **development stage** that starts when a **data space initiative** has a sufficiently detailed project plan, milestones and resources (funding and other) for developing its **governance framework** and **infrastructure** in the context of a **data space pilot**. It is typical for this stage that the parties involved in the pilot and the value created for each are also clearly identified.


















The **development stage** that starts when a **data space initiative** has a tested implementation of **infrastructure(s)** and **governance framework**, and the first **use case** becomes operational (data flowing between **data providers** and **data recipients** and use case providing the intended value). Typically, in this stage, changes occur, both in the governance framework and the technical implementation of the data space.

The **development stage** that starts when a **data space initiative** has proven to consistently and organically gain new **participants** and embrace new **use cases**. In this stage, the **data space** can realistically be expected to be financially and operationally sustainable and respond to market changes, and grow over time.

Maturity assessment methodology

The goal of the maturity model is to facilitate self-assessment of the level of maturity to data space initiatives. The methodology consists of five main dimensions, several sets of indicators, and survey questions.

Dimensions and indicators

Technical	Business	Functional	Operational	Legal
 Security maturity	 Use case maturity	 Interoperability	 Volume of activity	 Sovereign assurance and ethics
 Standardisation	 Financial sustainability	 Trust	 Processes for data quality	 Legal compliance of data space organiser
 Technical sovereignty	 Business model type	 Value creation	 Operational governance	 Legal support to data space participants
 Architecture framework	 Organisational governance			

Outputs

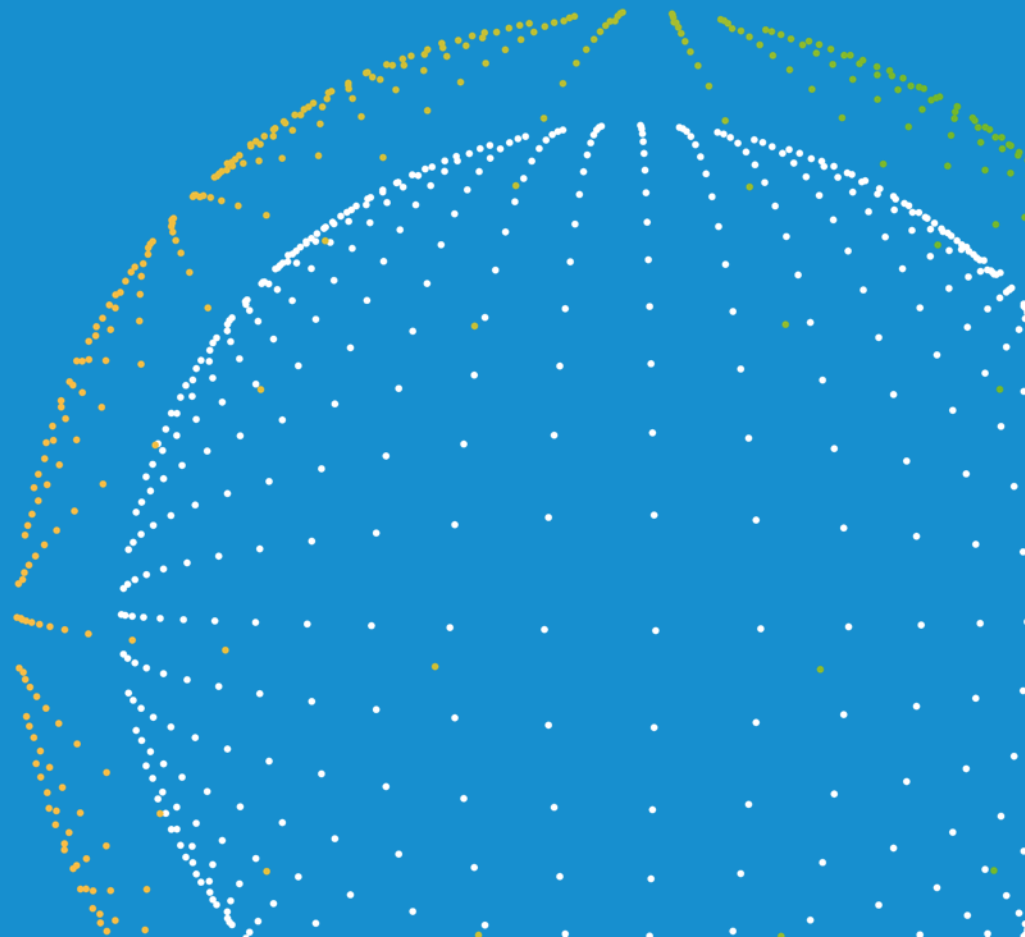
1

Mid-term and final impact evaluation reports

2

Visualisation through the radar from Sept-2024

Data Spaces Radar



The new Data Spaces Radar in the spotlight

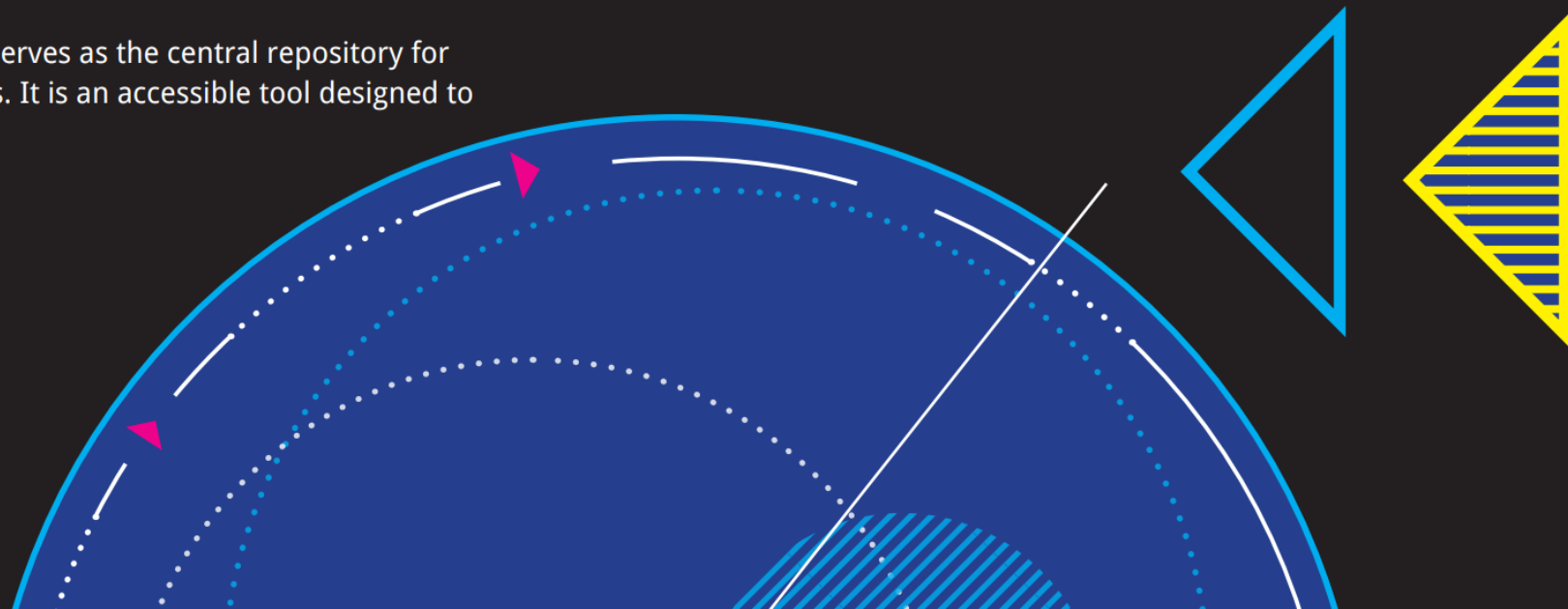


More than two years back, the International Data Spaces Association (IDSA) introduced the groundbreaking Data Spaces Radar, a tool that swiftly gained acclaim and found its place within the dynamic landscape of data spaces. Today, we are excited to unveil the evolution of this pioneering asset – the newly enhanced Data Spaces Radar.

The Data Spaces Radar serves as the central repository for all data space endeavors. It is an accessible tool designed to

provide a comprehensive view of various data space initiatives worldwide. Offering insights into the 18 different sectors, global expansion, technical transparency and new stages of development of the data spaces featured in the radar.

Since the inception of this asset by IDSA, the Data Spaces Radar has cataloged nearly 150 entries.



New Features

Improved user experience

1

Get ready to spend hours navigating effortlessly with a better look and feel, promising an enriched user experience.

Increased capacity

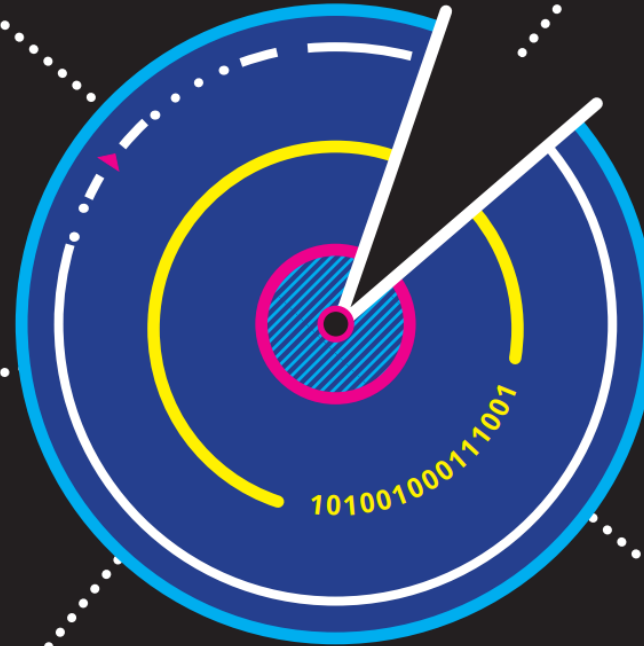
2

Hosting more data spaces and use cases, the radar expands its capabilities to accommodate the ever-growing data spaces ecosystem.

Enhanced visualization

3

Beyond the classic radar view, explore charts, graphs, and various visualization options for a deeper understanding of data space examples.



4

Advanced filtering

Experience refined search functionalities with free-form searches and diverse filters based on categories, allowing you to find exactly what you're looking for.

5

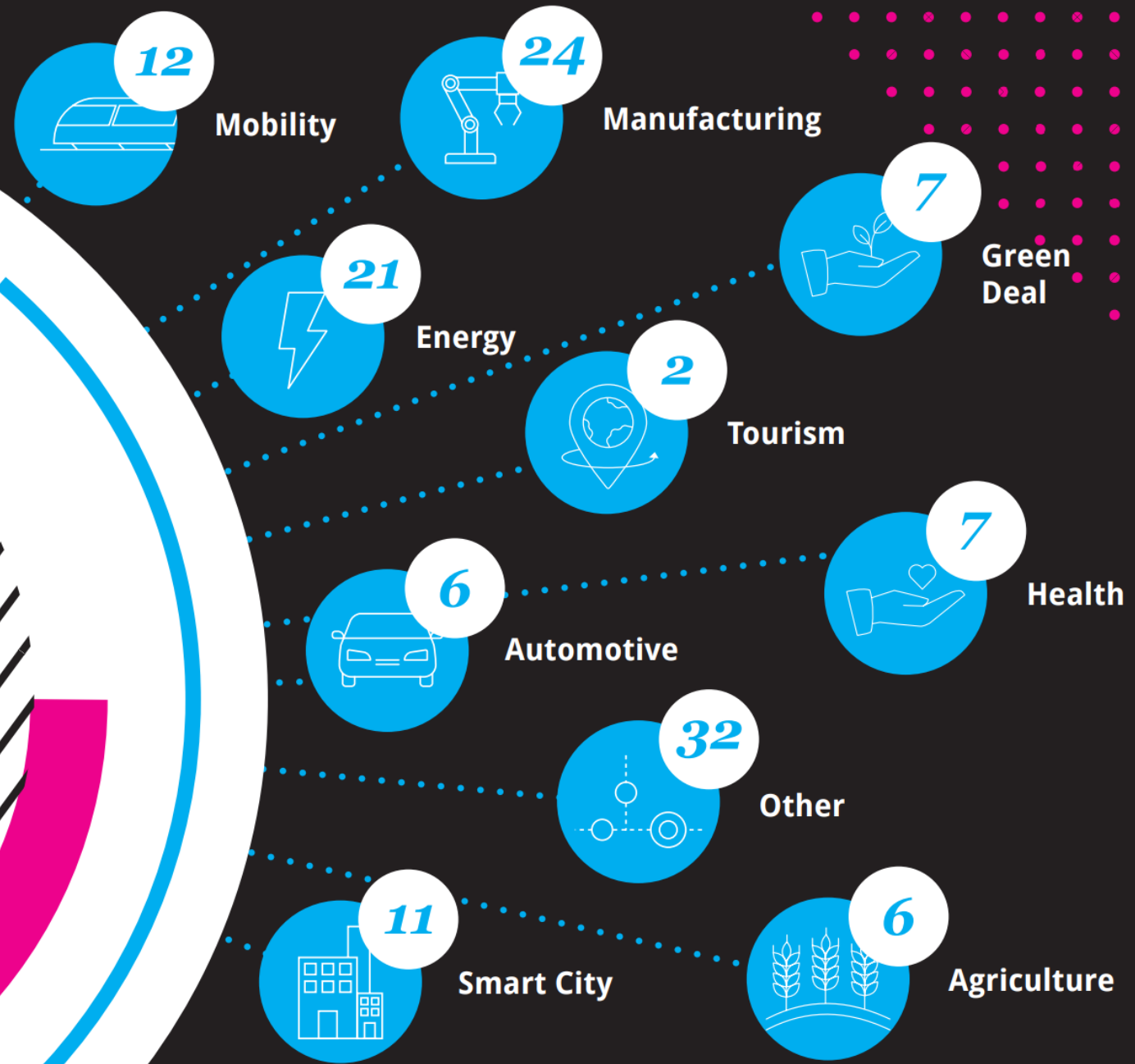
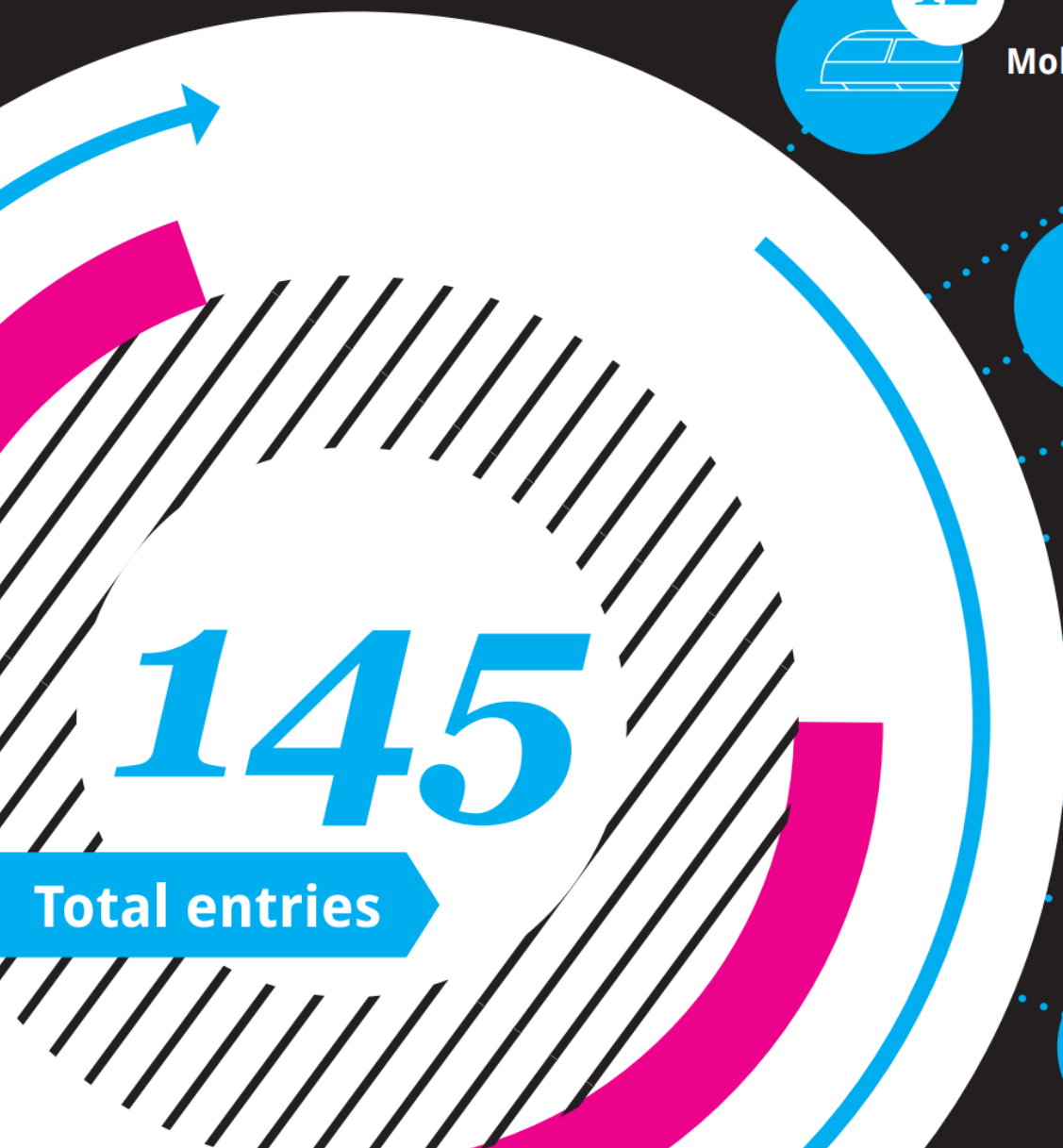
Global reach

Crossing borders, the radar showcases data space examples from around the world. Get ready for a comprehensive geographical overview with a map highlighting data spaces on all continents.

6

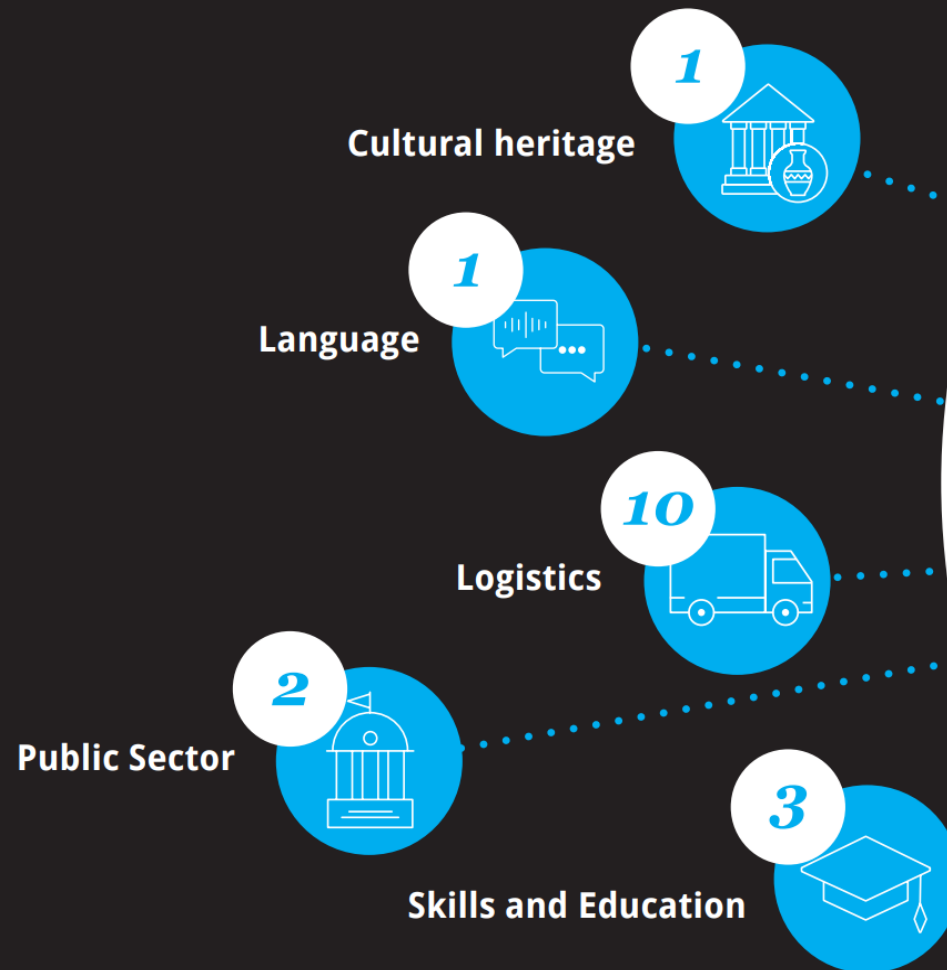
Technical transparency

Dive into the components; understand what data spaces are made of by exploring the technical building blocks, implemented connector or component in the ecosystem of the International Data Spaces.



Why put your use case on the Data Spaces Radar?

Register here



The Data Spaces Radar

Community of Practice Data Space Use Case Additional filters

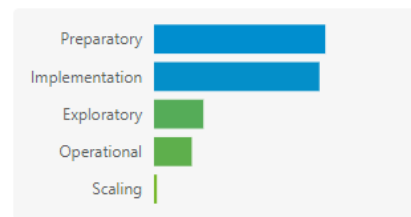
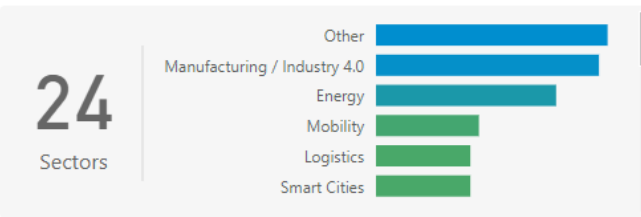
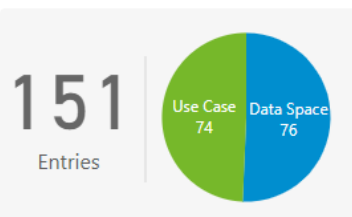
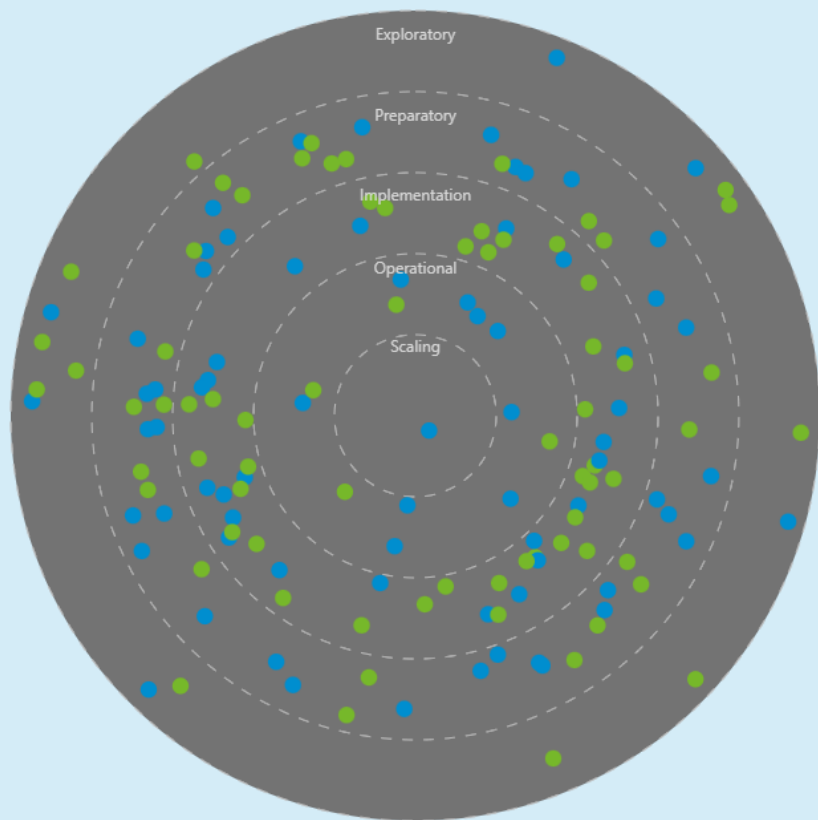
Development Stage

Alle

Data Space

Alle

- Agriculture
- Agriculture / ...
- Automotive
- Automotive, ...
- Built Environ...
- Cross Domain
- Cultural herit...
- Energy
- Geoinformati...
- Green Deal
- Green Deal / ...
- Health
- Language
- Logistics
- Manufacturin...
- Mobility
- Open source
- Other
- Public Sector
- Skills and Ed...



Item Profile

Part of DCCS's Community of Practice Data Space Website

*Choose an entry in the radar to learn more

- **Development stage:**
- **Sectors:**
- **Partners:**
- **Start date:** Montag, 1. Januar 1900
- **Geographical focus: (Countries:)**
- **Source of funding:** EU funding
- **Reference architecture used:** European Building Blocks
- **Data Space Connectors:** Dataspace Connector
- **Federated Services:** Federated Catalogue
- **Available datasets:** 40

- **The challenge:**
- **The solution:**

This item is part of the following Data Space family:

Name	Type	Sectors	Development Stage
Advaneo DMP	Data Space	Other	Operational
agdatahub	Data Space	Agriculture / Agrifood	Implementation
Agriculture robot fleets and AI -as-a-service in FlexiGroBots project	Use Case	Agriculture	Implementation
AgriDataSpace	Data Space	Agriculture /	Preparatory

Choose item for more details:

- Advaneo DMP
- agdatahub
- Agriculture robot fleets and AI -as-a-service
- AgriDataSpace
- AI.SOV
- Aixa
- aiXia
- AluTrace
- Basque Energy Cluster
- Bauhaus.MobilityLab
- Boost 4.0
- Brainport Industries Smart Factory
- CADS - Carbon Agri Data Space
- Carbon Capture Audit Trail (CAST / Trust Tr
- Catena-X
- City Dataspace
- Collaborative Warranty and Quality Manag
- Cross-domain: Web 3.0 Data Space
- DaCapo - Circularity for a digitally-driven E
- DASLOGIS - Dutch Data Spaces for Logistic
- Data and service marketplace for energy fl
- Data Cellar
- Data Sharing Coalition - Green Loans
- Data Space 4.0
- Data Space for Multimodal Passenger Mob
- Data Space for Skills (DS4Skills)
- Data spaces for smart energy
- DataPorts
- Dates
- Defense Data Space
- Deutsche Telekom - Data Intelligence Hub
- Deutsche Telekom - Data Intelligence Hub
- DiniChecks: Construction Data Space for R

Radar View

Chart View

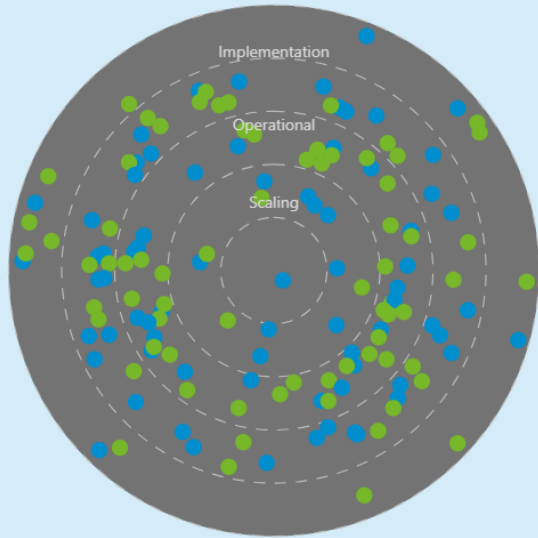
Map View

Table View

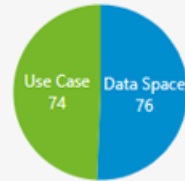
Building Blocks

The Data Spaces Radar

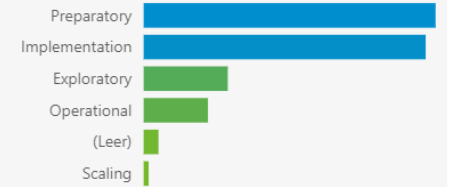
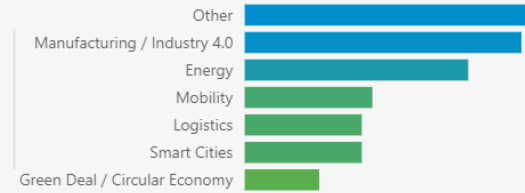
Chart View



151
Entries



24
Sectors



New Listings

Entries added in the last 6 months

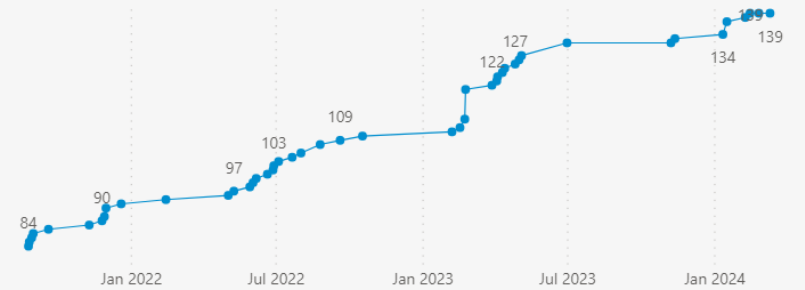
10
Entries

Name

- UdL Research Data Space
- The Once-Only Technical System (OOTS)
- Software Dataspace
- Sm4rtenance
- Public Procurement Data Space (PPDS)
- GDSO
- Energy Data Space
- DigiChecks: Construction Data Space for Building Permit Management

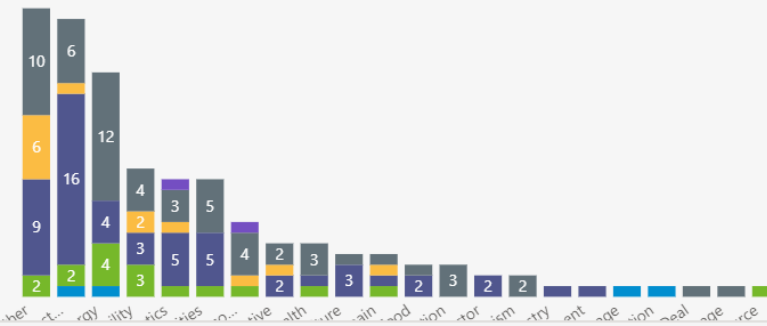
Radar Growth

Number of entries over time



Number of Entries

nach Sektoren und Lifecycle Stage



Source of Funding

Number of Entries nach Source of Funding



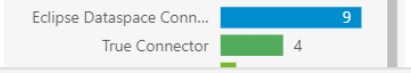
Reference Architecture

Number of Entries nach Architecture Used



Data Space Connector

Number of Entries nach Data Space Connector



Filter results:

Community of Practice Data Space Use Case

- Agriculture
- Agricultur...
- Automotive
- Automoti...
- Built Envi...
- Cross Do...
- Cultural ...
- Energy
- Geoinfor...
- Green D...
- Green D...
- Health
- Language
- Logistics
- Manufac...
- Mobility
- Open so...
- Other
- Public Se...
- Skills an...

Data Space

Alle

Development Stage

Alle

Geographical Focus

Alle

Countries

Alle

Source of Funding

Technical components used or Underlying technical structure

The Data Spaces Radar

Map View

- Geographical Focus**
- European
 - International
 - Local
 - National (scope is onl...
- Countries**
- Austria
 - Austria, France, Germany, Italy, Lithu...
 - Belgium
 - Bulgaria
 - Canada
 - China
 - Croatia
 - Cyprus
 - Czech Republic
 - Denmark
 - Estonia
 - Finland
 - France

Filter results: All EU Member States

Community of Practice
 Data Space
 Use Case

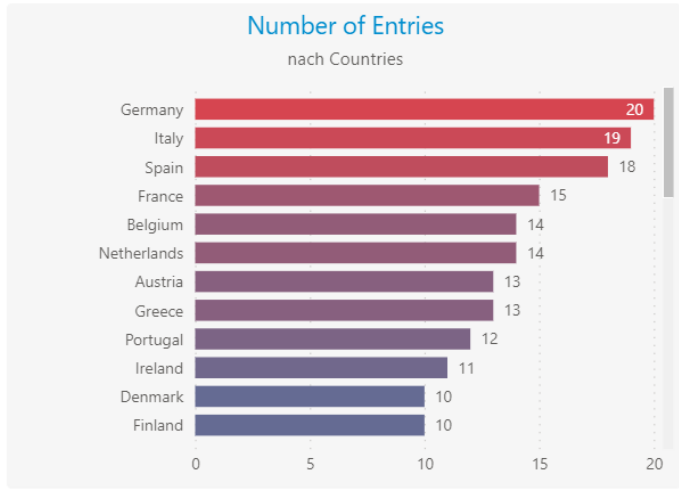
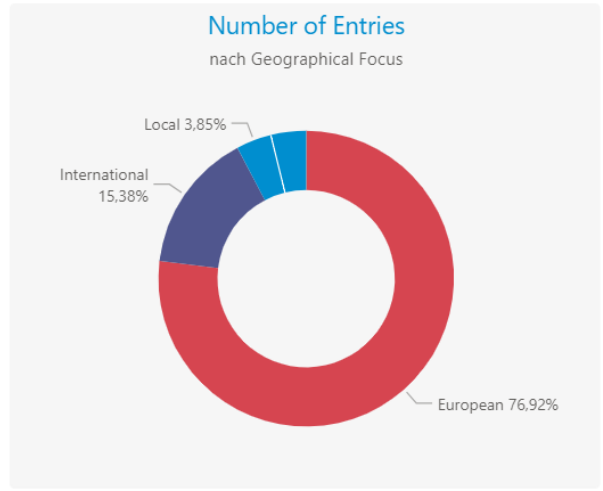
Agriculture	Agricultur...	Automotive	Automoti...
Built Envi...	Cross Do...	Cultural ...	Energy
Geoinfor...	Green D...	Green D...	Health
Language	Logistics	Manufact...	Mobility
Open so...	Other	Public Se...	Skills an...

Data Space

Development Stage

Source of Funding

Reference Architecture Used



Relevant Entries

Name	Type
Würth C-Part Supply	Use Case
Wind Energy Generation Data Space	Use Case
Wind and Solar Assets modeling	Use Case
VELES Project (HORIZON-WIDERA-2022-ACCESS-04 – 101087483)	Use Case
Vehicle Charging	Use Case
UdL Research Data Space	Data Space
UCIMU "Data Space Committee"	Data Space
truzzt Port	Use Case



Radar View

Chart View

Map View

Table View

Building Blocks

The Data Spaces Radar

Table View

Table Customization:

Customize the table according to your needs and interests - Add or remove columns below:

- Name
- Headline
- Development Stage
- Development Stage - Further details
- Sectors
- Partners involved
- Challenge
- Solution/Success
- Business Case Pattern
- Relevant European Regulation

Filter results:

Community of Practice Data Space Use Case

Agriculture	Agricultur...	Automotive	Automoti...
Built Envi...	Cross Do...	Cultural ...	Energy
Geoinfor...	Green D...	Green D...	Health
Language	Logistics	Manufac...	Mobility
Open so...	Other	Public Se...	Skills an...

Data Space:

Development Stage:

Geographical Focus:

Countries:

Source of Funding:

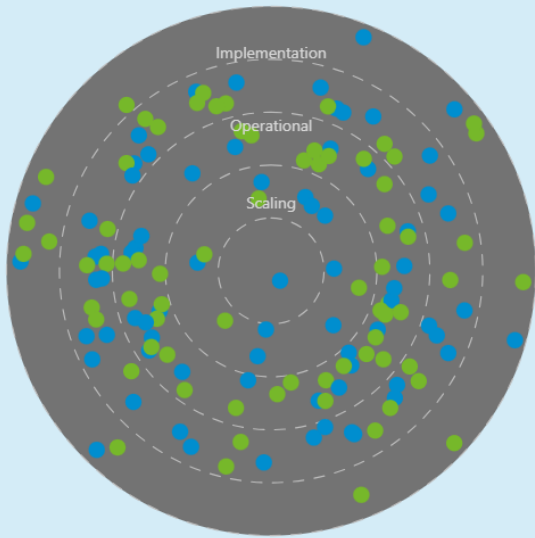
Reference Architecture Used:

Klicken Sie hier, um diesem Link zu folgen.

Name	Headline	Development Stage	Sectors	
Advaneo DMP	Access to the world of data	Operational	Other	Advaneo
agdatahub		Implementation	Agriculture / Agrifood	
Agriculture robot fleets and AI-as-a-service in FlexiGroBots project	AI services and multi-robot field operations in a service based business model in FlexiGroBots project's Finnish Pilot.	Implementation	Agriculture	VTT, LUKE (Natural Sciences Institute Finland), MTech Digital Solutions Oy, Probot Oy, Atos
AgriDataSpace		Preparatory	Agriculture / Agrifood	
AI.SOV	Sovereignty compliant exchange of AI results and information among trusted supply chain partners	Implementation	Logistics	Cefriel
Aixa	Data space for sharing knowledge and servitization of collaborative artificial intelligence	Preparatory	Manufacturing / Industry 4.0	Lantek; Lis Solutions; S.L.; Ingeteam; S.A.; Goizper S.Coop.; Mondragon Assembly S.Coop.; Ubikare Zainketak; S.L.; Eroski S.Coop.; Ikerlan
aiXia	Data space for sharing knowledge and servitization of collaborative artificial intelligence	Preparatory	Manufacturing / Industry 4.0	"aiXia" which will be led by LANTEK (digital services) together with the companies LIS SOLUTIONS, S.L. (data analytics and ai services), INGETEAM, S.A.(energy), GOIZPER S.COOP. (machine-tool industry), MONDRAGON ASSEMBLY S.COOP. (manufacturing), UBIKARE ZAINKETAK, S.L. (healthcare), EROSKI S.COOP (retail). The technology coordinator is IKERLAN (a leading knowledge transfer centre providing competitive value

The Data Spaces Radar

Building Blocks View



Radar View

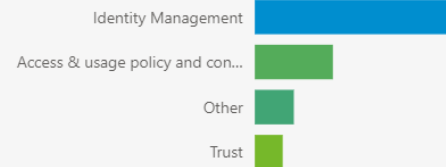
Table View

Map View

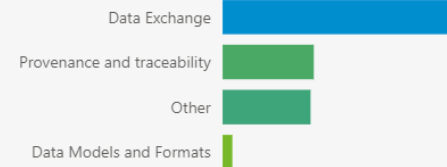
Chart View

Building Blocks

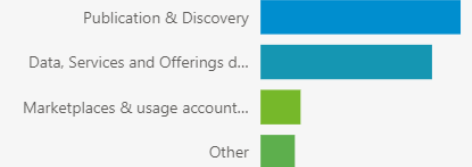
Data Sovereignty



Data Interoperability



Data Value Creation



Detailed Information

Name	05 Functional: Data sovereignty and trust building blocks	Access & usage policy and control	Trust	Identity Management	Data Interoperability building blocks	Data Exchange	Data Models	Provenance and traceability	Data Value Creation Building Blocks	Data, Services and Offerings descriptions	Publication & Discovery
Advaneo DMP					Data Exchange; P...	Data Connector		Clearing House	Data, Services a...	Appstore	Metadata Broker
agdatahub											
Agriculture ro...	Identity Manage...			Dynamic Attrib...	Data Exchange	VTT Connector			Publication & Di...		Metadata Broker
AgriDataSpace					conceptualizatio...						
AI.SOV	Access & usage ...	Usage Control		Dynamic Attrib...	Data Exchange	Data Connector					
Aixa											
aiXia											
AluTrace	Identity Manage...			Identity Provider	Data Exchange; P...	Data Connector		Clearing House	Publication & Di...		Metadata Broker
Basque Energ...					Data Models; Dat...	Data Connector	Vocabulary ...		Data, Services a...	Offshore Wind Digital PI...	Metadata Broker
Bauhaus.Mob...					Data Exchange	Data Connector					
Boost 4.0											
Brainport Ind...											
CADS - Carbo...					Data Models		Fiware Orion...				
Carbon Captu...					Data Models		Fiware Orion...				
Catena-X	Identity Manage...			Identity Provider	Data Models; Dat...	Eclipse Dataspa...	Vocabulary ...	Clearing House	Data, Services a...	Appstore	Metadata Broker
City Dataspace					Data Exchange	Data Connector			Data, Services a...	Data Management Platfo...	Metadata Broker

Filter results:

Community of Practice Data Space Use Case

- Agriculture
- Agricultur...
- Automotive
- Automotiv...
- Built Envi...
- Cross Do...
- Cultural h...
- Energy
- Geoinfor...
- Green Deal
- Green De...
- Health
- Language
- Logistics
- Manufact...
- Mobility
- Open sou...
- Other
- Public Se...
- Skills and...

Data Space

Alle

Development Stage

Alle

Geographical Focus

Alle

Countries

Alle

Source of Funding

Alle

Reference Architecture Used

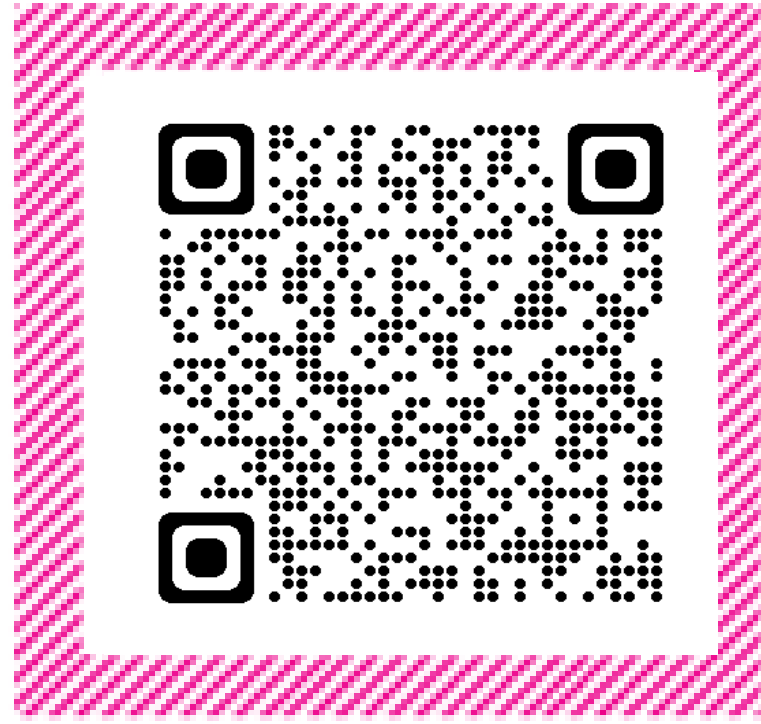
Alle

Become active – Join the Radar!

Explore here



Register here



Thank you

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christoph.mertens@internationaldataspaces.org

sylvain@startinblox.com

