

The Data Spaces Support Centre (DSSC) and its intersections with the European research community

E-IRG workshop 24-25 June 2025 (Session 3)

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What is a data space?

Data space

Interoperable framework, based on common governance principles, standards, practices and enabling services, that enables trusted data transactions between participants.

CEN Workshop Agreement 18125 (available [here](#)) and Data Spaces Support Centre's Glossary ([here](#))



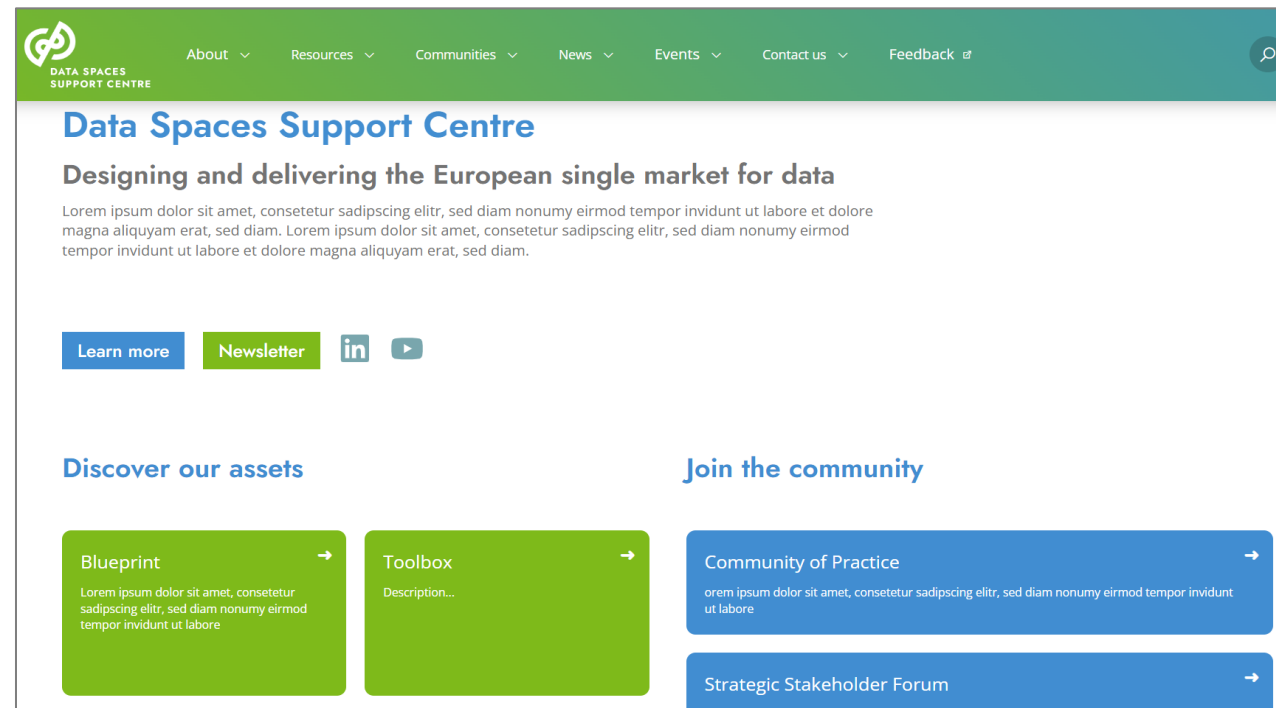
What is the DSSC?



Data Space Support Centre (DSSC)

The Data Spaces Support Centre supports the deployment of the common European data spaces, that collectively create a data sovereign, interoperable and trustworthy data sharing environment, to enable data reuse within and across sectors, fully respecting EU values, and supporting the European economy and society.

www.dssc.eu





DATA SPACES SUPPORT CENTRE

The virtual organisation and EU-funded project which supports the deployment of common European data spaces and promotes the reuse of data across sectors.



Partners

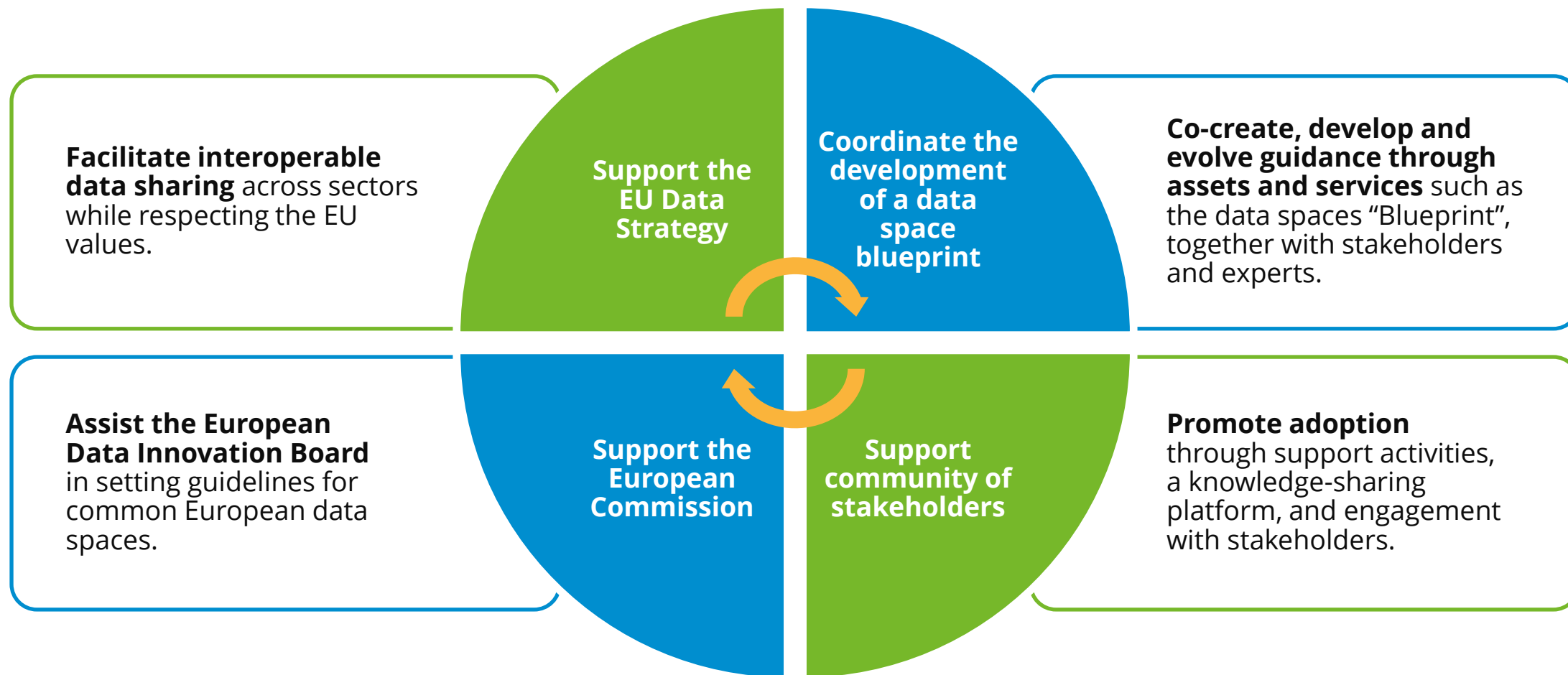
Associated partners



DSSC mission

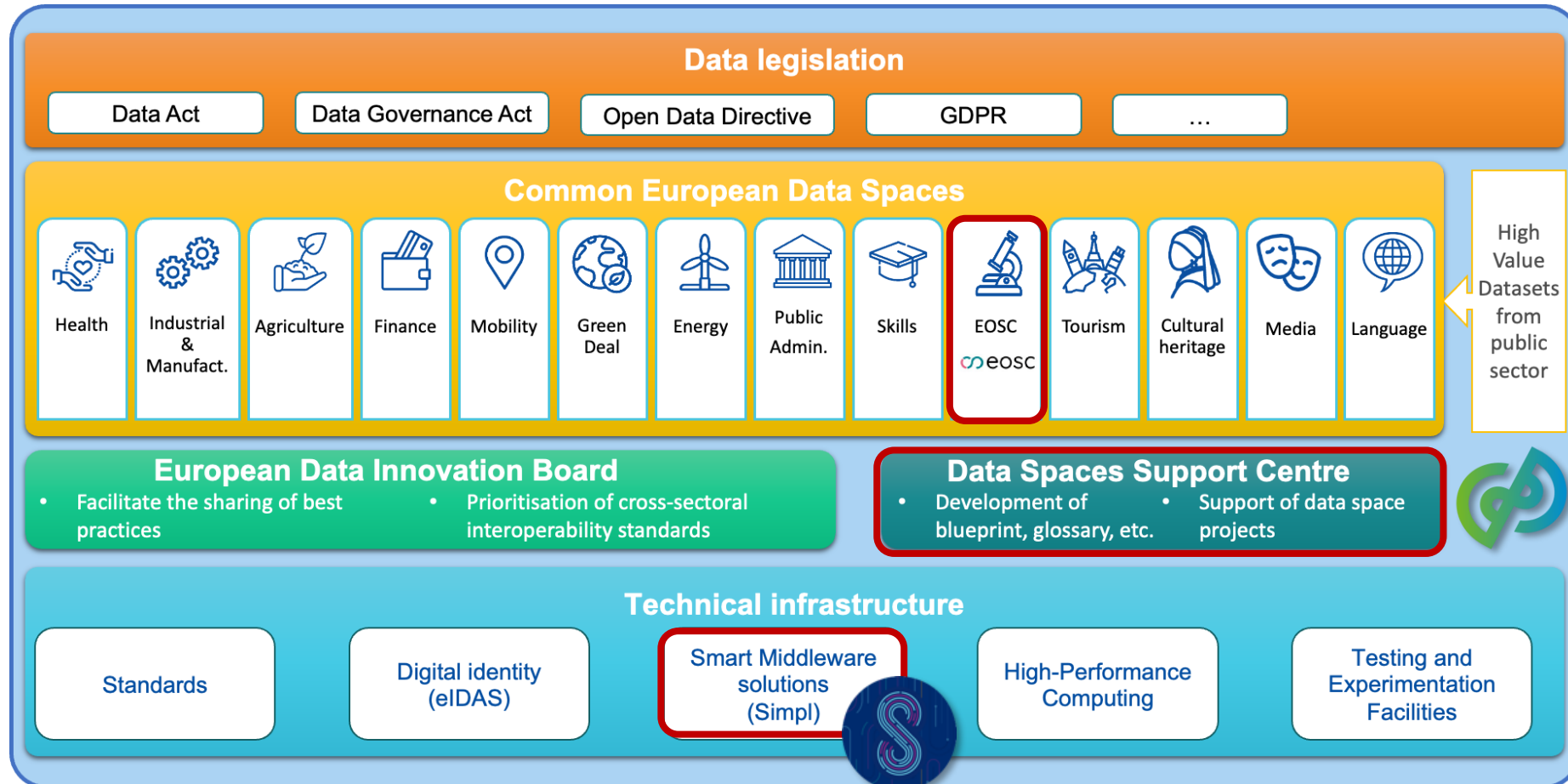


**DATA SPACES
SUPPORT CENTRE**





Positioning of the DSSC within the EU Data Strategy implementation actions



European Commission support for data space development

Roles and Offerings of the DSSC and the Simpl programme



Community Building

Distillation

Synthesis

Guidance and support

Dissemination



DATA SPACES SUPPORT CENTRE

DSSC Network of Stakeholders (NoS)

Initiatives and bodies DS need to collaborate with for alignment and/or holistic picture.
Bring requirements, knowledge, influence, alignment.

Set up, run or provide technology for Data Spaces.
Hands-on community
Learn from each other, align, contribute.

Enablers, influencers and users of Data Spaces. Have expertise on the matter. They have committed resources.
Advice, give direction and contribute.

Collaborations and liaisons
Relevant initiatives and bodies

SDOs

EDIB

Community of Practice (CoP)

Data Space initiatives & Building block implementers

Strategic Stakeholder Forum (SSF)

Organisations with expertise in Data Spaces

Support

Data Spaces Support Centre

Assets

Key activities

- Thematic Groups (Business, Governance, Technical) co-learning
- Expert Groups (narrow scope) for the co-creation of assets

Community Building

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Dissemination



DATA SPACES SUPPORT CENTRE

Language

Health

Public sector procurement

Completed projects

Mobility

Manufacturing

Green Deal

Tourism

Energy

Smart cities

Cultural Heritage

Skills

Media

+ Collaboration with Simpl



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DATA SPACES SUPPORT CENTRE

Strategic Stakeholder Forum (SSF)

EC different DGs

National Public Authorities & Agencies

Non-Profit Associations & Technology Platforms

RTOs

National/Regional data spaces enabling initiatives

Industry Associations

Industry SMEs, Large and MidCaps

- Multi-stakeholder platform representing the diversity of DSSC users
- 44 members in the Strategic Stakeholder Forum
- Targeting presence in all EU MSs (and beyond)

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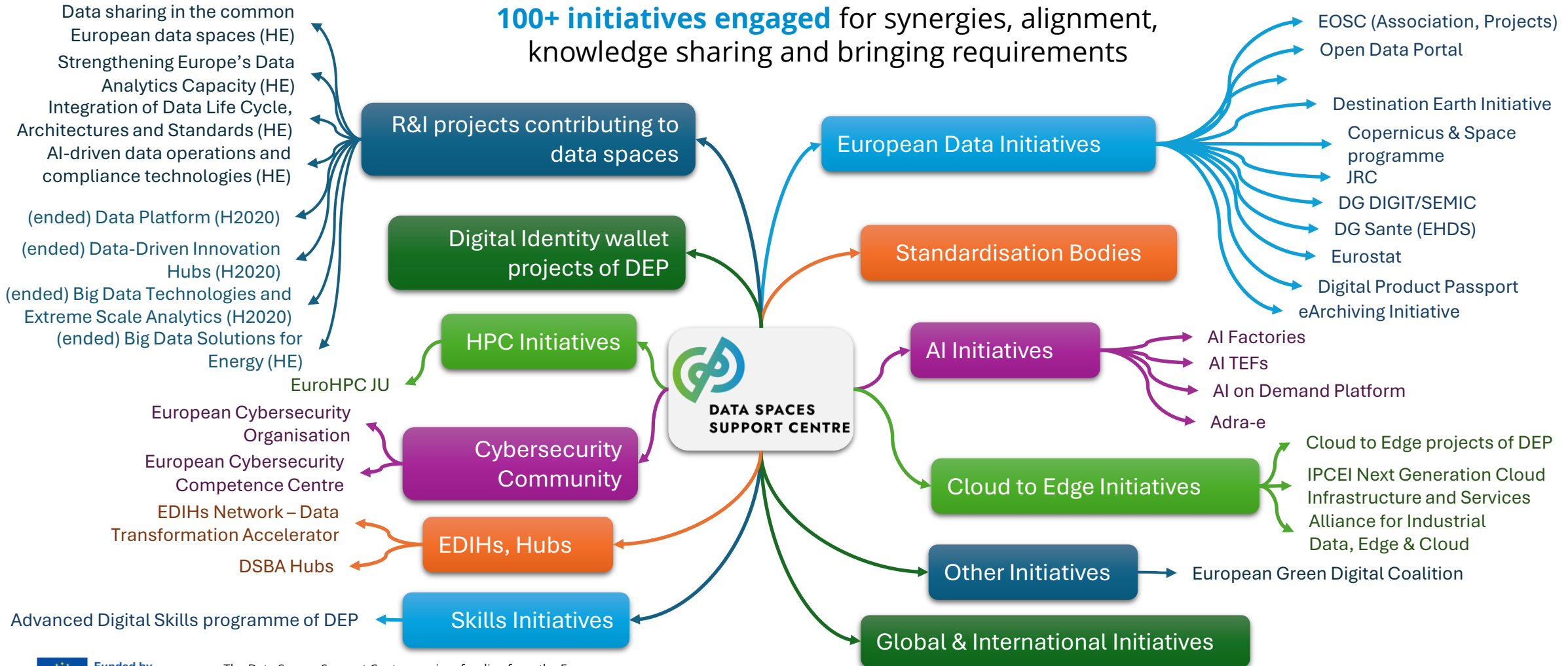
Dissemination



DATA SPACES SUPPORT CENTRE

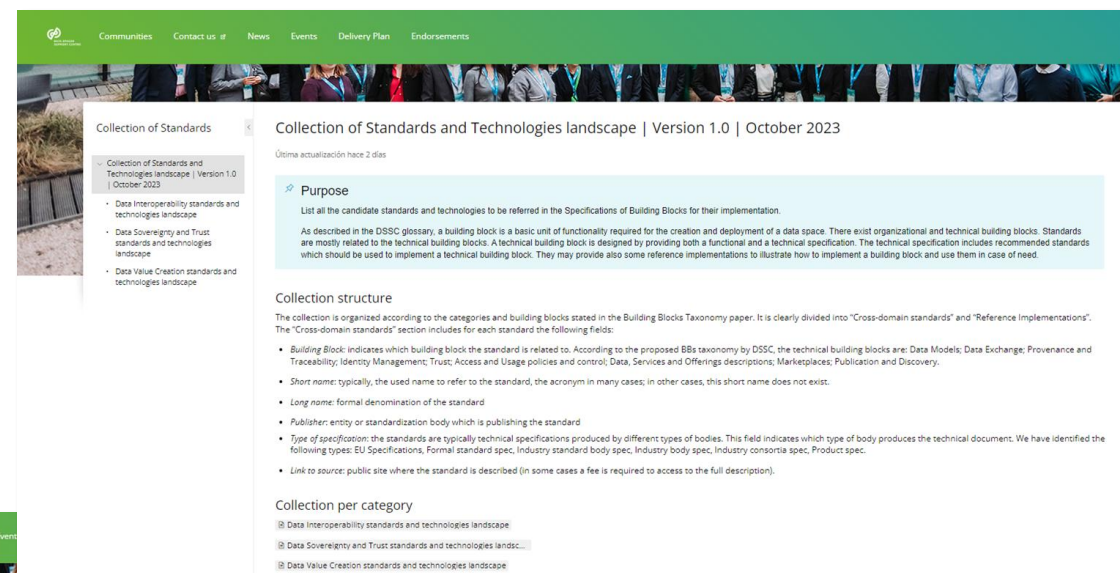
Collaboration & Liaisons

100+ initiatives engaged for synergies, alignment, knowledge sharing and bringing requirements



Collection of standards

- A map of existing de-facto/de-jure standards and reference implementations candidates for the technical descriptions of the Building Blocks
- In co-creation with the data spaces initiatives and stakeholders
- 130 collected standards (Sep 2023)
- Available through DSSC website
- Open for contributions (feedback form)



Collection of Standards and Technologies landscape | Version 1.0 | October 2023

Última actualización hace 2 días

Purpose

List all the candidate standards and technologies to be referred in the Specifications of Building Blocks for their implementation.

As described in the DSSC glossary, a building block is a basic unit of functionality required for the creation and deployment of a data space. There exist organizational and technical building blocks. Standards are mostly related to the technical building blocks. A technical building block is designed by providing both a functional and a technical specification. The technical specification includes recommended standards which should be used to implement a technical building block. They may provide also some reference implementations to illustrate how to implement a building block and use them in case of need.

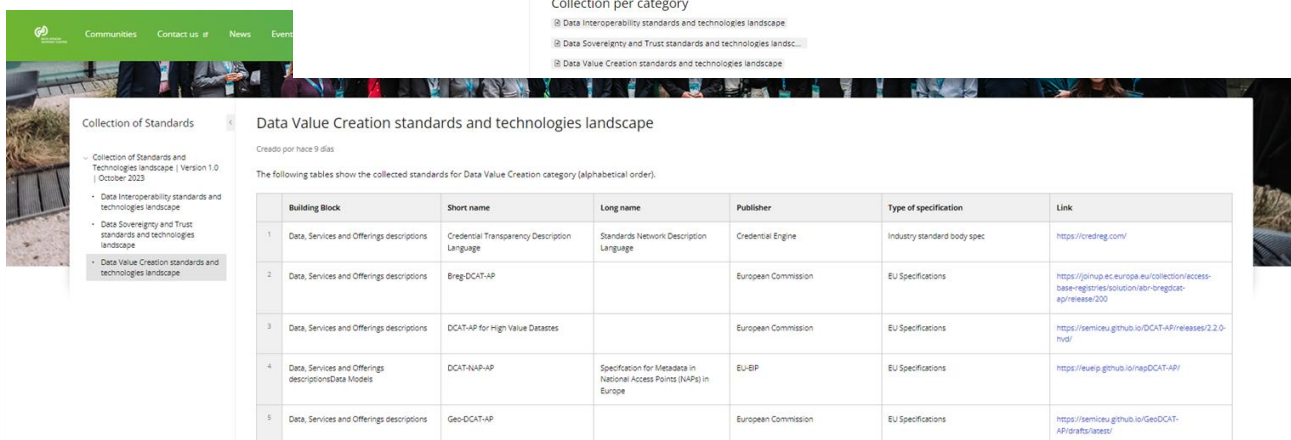
Collection structure

The collection is organized according to the categories and building blocks stated in the Building Blocks Taxonomy paper. It is clearly divided into "Cross-domain standards" and "Reference Implementations". The "Cross-domain standards" section includes for each standard the following fields:

- **Building Block:** indicates which building block the standard is related to. According to the proposed BBs taxonomy by DSSC, the technical building blocks are: Data Models; Data Exchange; Provenance and Traceability; Identity Management; Trust; Access and Usage policies and control; Data, Services and Offerings descriptions; Marketplaces; Publication and Discovery.
- **Short name:** typically, the used name to refer to the standard, the acronym in many cases; in other cases, this short name does not exist.
- **Long name:** formal denomination of the standard
- **Publisher:** entity or standardization body which is publishing the standard
- **Type of specification:** the standards are typically technical specifications produced by different types of bodies. This field indicates which type of body produces the technical document. We have identified the following types: EU Specifications, Formal standard spec, Industry standard body spec, Industry consortia spec, Product spec.
- **Link to source:** public site where the standard is described (in some cases a fee is required to access to the full description).

Collection per category

- Data Interoperability standards and technologies landscape
- Data Sovereignty and Trust standards and technologies landscape
- Data Value Creation standards and technologies landscape



Collection of Standards

Data Value Creation standards and technologies landscape

Creado por hace 9 días

The following tables show the collected standards for Data Value Creation category (alphabetical order).

Building Block	Short name	Long name	Publisher	Type of specification	Link
1. Data, Services and Offerings descriptions	Credential Transparency Description Language	Standards Network Description Language	Credential Engine	Industry standard body spec	https://credreg.com/
2. Data, Services and Offerings descriptions	Breg-DCAT-AP		European Commission	EU Specifications	https://joinup.ec.europa.eu/collection/access-data-registry/section/180-bregdcata-api/180-200
3. Data, Services and Offerings descriptions	DCAT-AP for High Value Datasets		European Commission	EU Specifications	https://semiceu.github.io/DCAT-AP/releases/2.2.0-hvd/
4. Data, Services and Offerings descriptions Data Models	DCAT-NAP-AP	Specification for Metadata in National Access Points (NAPs) in Europe	EU-EP	EU Specifications	https://europ.github.io/GeoDCAT-AP/
5. Data, Services and Offerings descriptions	Geo-DCAT-AP		European Commission	EU Specifications	https://semiceu.github.io/GeoDCAT-AP/grab/180/

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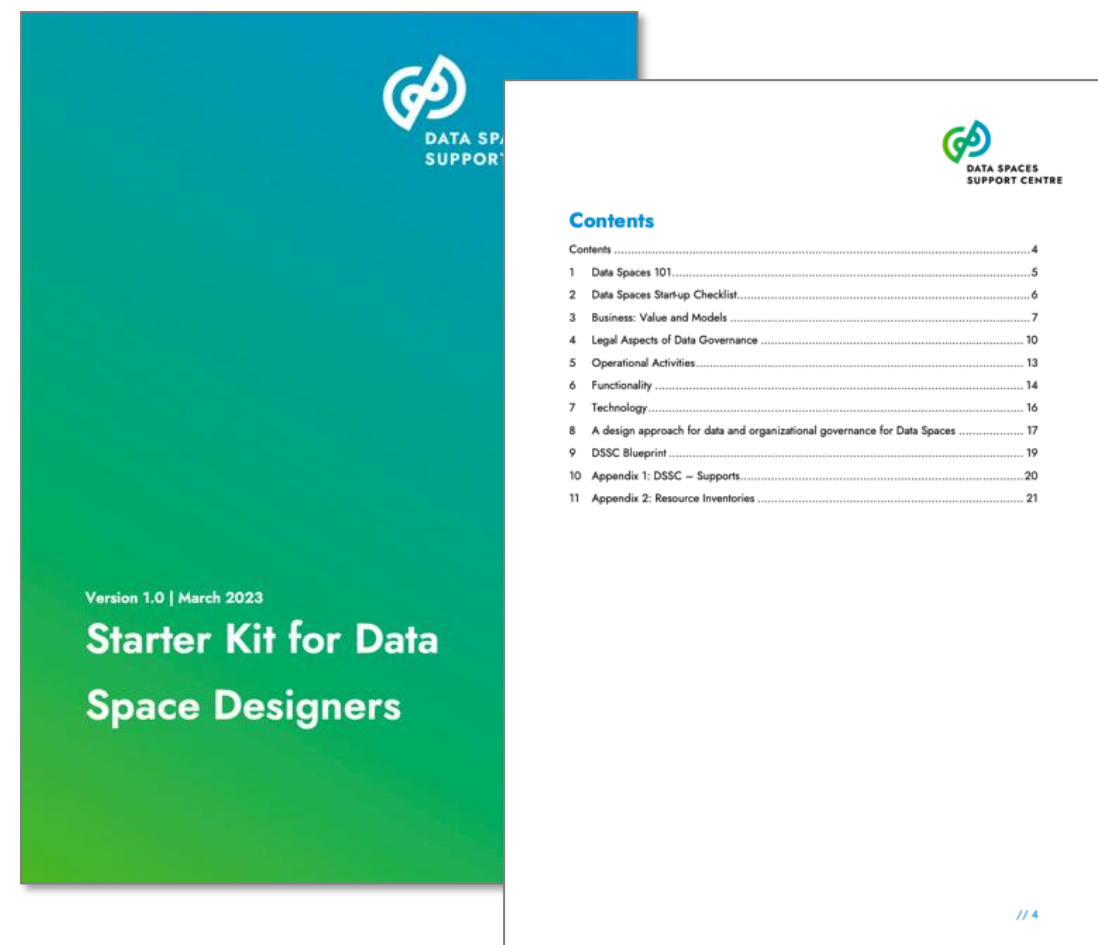
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DATA SPACES
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The Starter Kit

- An easy introduction to data spaces and Data Spaces Support Centre
- For data space designers, data producers, data consumers, providers of intermediary services, or services a business applications.



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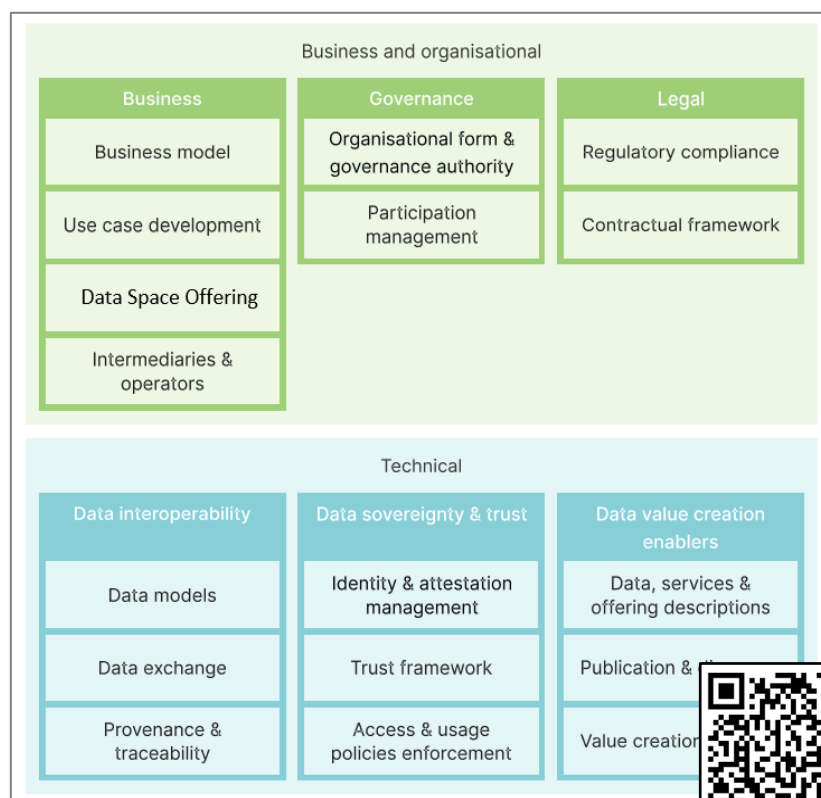
Guidance and support

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DATA SPACES
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The Data Spaces Blueprint



The Blueprint 2.0

- The collection of building blocks and components that make most typical data spaces.
- Building block = required capability for a data space
 - Business & organisational
 - Technical
- Functional description and related recommended standards.
- Supporting the choices you face in designing a data space or performing gap analysis vs pre-existing systems.
- Common specifications
- Co-Creation Method: design decisions for individual data spaces
- **Still one iteration ahead (Blueprint v3.0 expected in January 2026)**

The Co-creation Method 2.0

Life cycle stages

Exploratory

Preparatory

Implementation

Operational

Scaling

Data Space Development Processes

Align stakeholders on the data space scope

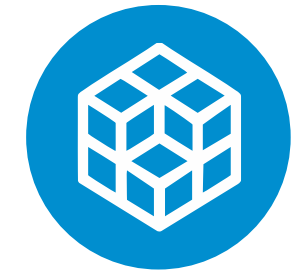
Develop Use Cases and Identify Functional Requirements

Functional Analysis and Data Space Design

Establish Organisational Form

Establish Data Space Agreements and Policies

Links to Building Blocks



The development processes are:

- are **connected** to both the green and the blue building blocks;
- provide the **order** in which building blocks should be used;
- help **explain the relationships** between the building blocks.

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Design principles & synergies

- **Design principles** are guidelines that assist data space initiatives making informed decisions while minimizing the risks of data space design and development flaws
- They focus on core values essential for the success of data spaces
- The identified design principles are built upon the expertise of data space professionals

- Discussion paper on the importance of **Synergies** of data spaces
- To understand synergies from multiple perspectives and to explore the role of synergies at different stages of data space development
- Piloting with DS initiatives

S#	Description	Category
01	Incentives and synergies between data space participants	Cross-pillar Design Principles
02	Discoverability, Availability, and Accessibility of Data	
03	Transparency	
04	Establishing Trust and Security in Data spaces.	
05	Ensure compliance with EU legal framework and norms	
06	Ensure Participants Rights in Data Sovereignty	
07	Promote Participation Through Inclusivity	
08	Promote Environmental sustainability	
09	Reusability of Data	Pillar – specific Design Principles
10	Establish a fit-for-purpose contractual framework	
11	Adaptable data space governance framework	
12	Pursuit Quality by Design	
13	Ensure Data Interoperability in data spaces	




Toolbox (with links to Co-creation & Blueprint)

← Back to all tools

sovity EDC Community Edition (EDC CE)

The sovity EDC Community Edition extends the Eclipse Dataspace Connector (EDC) with additional open-source enhancements, providing a ready-to-use solution for secure data exchange while ensuring data sovereignty.



[View website](#) Compare

General information

Blueprint versions
v1.5

Maintainer
sovity GmbH

Version
10.5.0

Links to relevant documents
<https://sovity.de/en/connect-to-data-space-en/>
<https://edc-ce.docs.sovity.de/>

Compare tools

sovity EDC Community Edition (EDC CE)

General information

Blueprint versions: v1.5

Url: <https://github.com/sovity/edc-ce>

Version: 10.5.0

Maintainer: sovity GmbH

Licence: Apache-2.0 license. <https://github.com/sovity/edc-ce/blob/main/LICENSE>

Application domain

Functional application area: This implementation is suitable for secure and sovereign data exchange across various applications.

Data Spaces Toolbox [Submit a tool](#)

Filter: 20 matching tools

Search:

Service

- Federation
- Participant Agent
- Value Creation
- Catalogue
- Vocabulary
- Observability
- Data Space Registry
- Validation and Verification
- Policy Information Point
- Business and organisational support tools
- Control Plane
- Data Plane
- Credential Store

Apache Syncope

Validation and Verification

Apache Syncope is an Open Source system for managing digital identities in enterprise environments, implemented in Jakarta EE technology.

Sitra Rulebook model for a fair data economy

Business and organisational support tools

The Sitra Rulebook model provides a manual for establishing a data space and to set out general terms and conditions for data sharing agreements....

ITTC Data Space Builder

Value Creation

The Data Space Builder is a suite composed by the different data spaces components and technical building blocks such as catalogs, vocabulary services, trust...

sovity Dynamic Attribute Provisioning Service (DAPS)

Validation and Verification

The Dynamic Attribute Provisioning Service (DAPS) is a high-performance solution for secure and trustworthy communication within data...

Business Model Radar

Business and organisational support tools

iSHARE Satellite (Participant Registry)

Data Space Registry

The Participant Registry is a core

Service d...

- Business and ...
- Participant Ag...
- Control Plane
- Data Plane
- Credential Store
- Federation
- Data Space R...
- Catalogue
- Validation and...
- Policy Informa...

Building b...

- Business Model
- Use Case Dev...
- Data Space O...
- Intermediaries...
- Organisationa...
- Participation ...
- Regulatory Co...
- Contractual fr...
- Data Models
- Data Exchange

Co-creation

- Align Stakehold...
- Develop Use Ca...
- Establish Organi...
- Functional Anal...
- Establish Data S...

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DATA SPACES SUPPORT CENTRE

Events



Data Spaces Symposium
Share data. Unlock value. Boost impact.

Hilton Hotel, Warsaw | 11 & 12 March 2025

Next DSS – Date not yet set (early 2026)


DSBA | EDV | FIWARE | GPOX | INTERNATIONAL DATA SPACES | DATA SPACES SUPPORT CENTRE

Funded by the European Union. The Data Spaces Support Centre receives funding from the European Union Digital Europe Programme under grant agreement n° 101083412.

Publications


Publications

Last updated 2 days ago



Generative AI and Data Spaces - White Paper

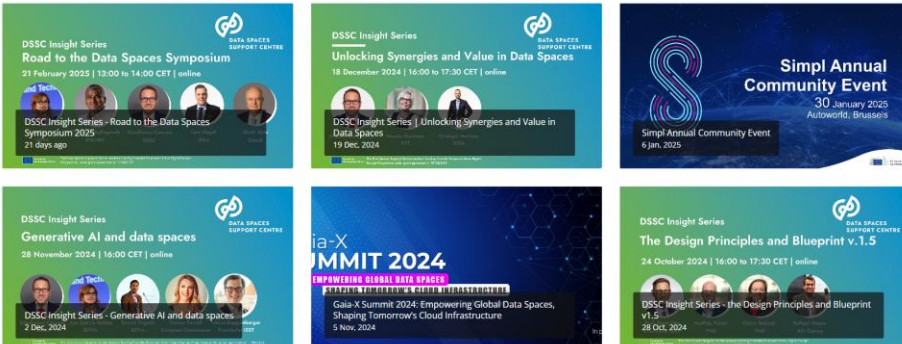
The "Generative AI and Data Spaces" white paper of the DSSC's Strategic Stakeholder Forum (SSF) explores the intersection of generative artificial intelligence (AI) and data spaces. It focuses on how combining these two fields can support innovative data-sharing ecosystems while adhering to principles, such as data sovereignty, trust, and interoperability. The white paper outlines key recommendations to enable more effective integration of generative AI into data spaces, fostering collaboration, transparency, and sustainable data management strategies within the European framework. (November 2024).



Why data spaces? A business and user's perspective - Discussion Paper

first collaborative discussion paper produced by Data Spaces Support Centre (DSSC) in collaboration with its Strategic Stakeholder Forum (SSF). The main target audience of this paper are organisations and initiatives enabling or implementing data spaces, and for the recommendations, also the DSSC team. Taking as a starting point existing bibliography, this paper reflects on outcomes of several workshops, interviews, individual and collective feedback gathering sessions with SSF members and DSSC partners. (October 2023).

Insight Series Webinars



DSSC Insight Series: Road to the Data Spaces Symposium | 21 February 2025 | 13:00 to 14:00 CET | online

DSSC Insight Series: Unlocking Synergies and Value in Data Spaces | 18 December 2024 | 16:00 to 17:30 CET | online

Simpl Annual Community Event | 30 January 2025 | 6 Jan. 2025 | Antwerp, Brussels

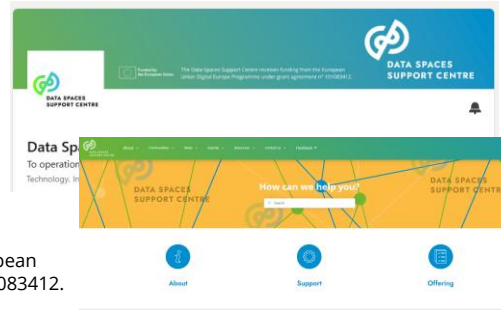
DSSC Insight Series: Generative AI and data spaces | 28 November 2024 | 16:00 CET | online

ia-x JMMIT 2024: Empowering Global Data Spaces, Shaping Tomorrow's Cloud Infrastructure | 5 Nov. 2024

DSSC Insight Series: The Design Principles and Blueprint v.1.5 | 24 October 2024 | 16:00 to 17:30 CET | online

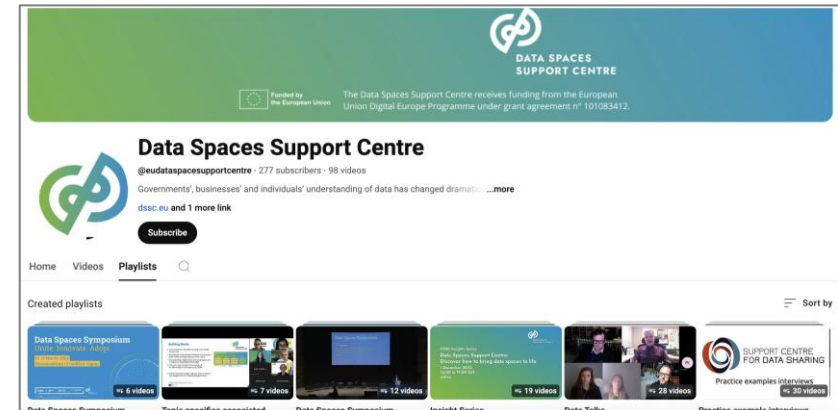
DSSC Insight Series: The Design Principles and Blueprint v1.5 | 28 Oct. 2024

Website & Social Media



European n° 101083412.

YouTube channel



Data Spaces Support Centre

@eudataspacesupportcentre · 277 subscribers · 98 videos

Governments', businesses' and individuals' understanding of data has changed dramatically...more

dssc.eu and 1 more link

Home Videos Playlists

Created playlists

- Data Spaces Symposium (11 videos)
- Topic specifics associated (7 videos)
- Data Spaces Symposium (12 videos)
- Insight Series (19 videos)
- Data Talks (28 videos)
- Practice example interviews (30 videos)

DSSC & Intersections with EOSC and the Research Community (not exhaustive)



- **Community Engagement**
 - EOSC Association in the DSSC SSF
 - EOSC projects engaged early in the DSSC lifetime
 - Thematic Groups for co-learning
 - Joint Workshops & Community events (DSS, EOSC Symposium, e-IRG 2024, ...)
 - Common key stakeholders (AI/Cloud, infrastructure, Simpl, ...)
- **Cross Domain use Case Pollination**
 - Research Data contributing to uses cases from other DS (e.g. Health, Green Deal)
 - Industrial data for research purposes
- **Technical intersections**
 - Interoperability, Data/Metadata
 - Standards
 - Design Principles
 - ...
- **Governance & sustainability intersections**
 - EU and national coordination
 - Funding schemes (DEP, HE, ...)

Where to find out more



Sign up for the
newsletter



Join our
community



Use our
resources



Get
support



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Thank you!



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25/06/2025

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