

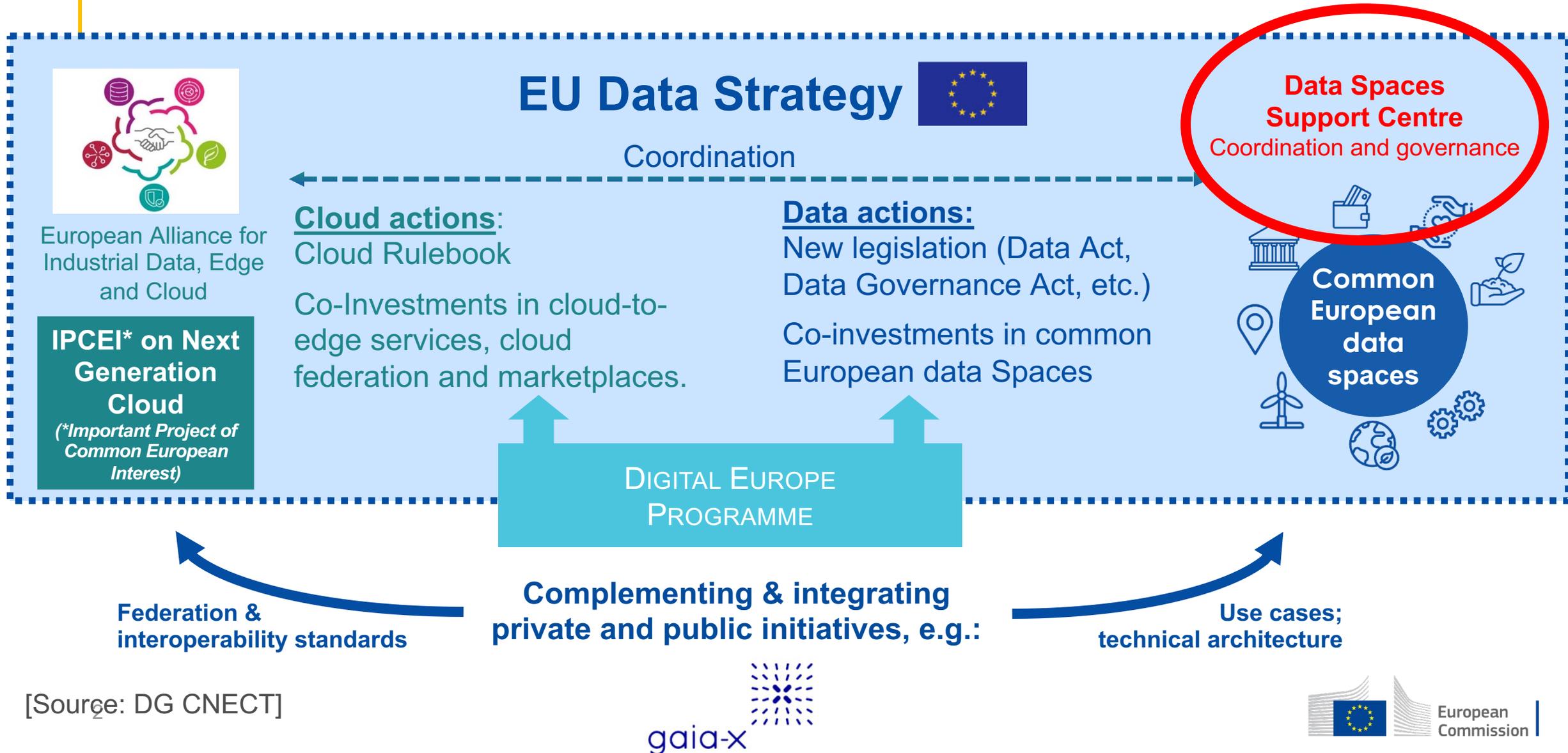


**DATA SPACES
SUPPORT CENTRE**

DATA SPACES SUPPORT CENTRE

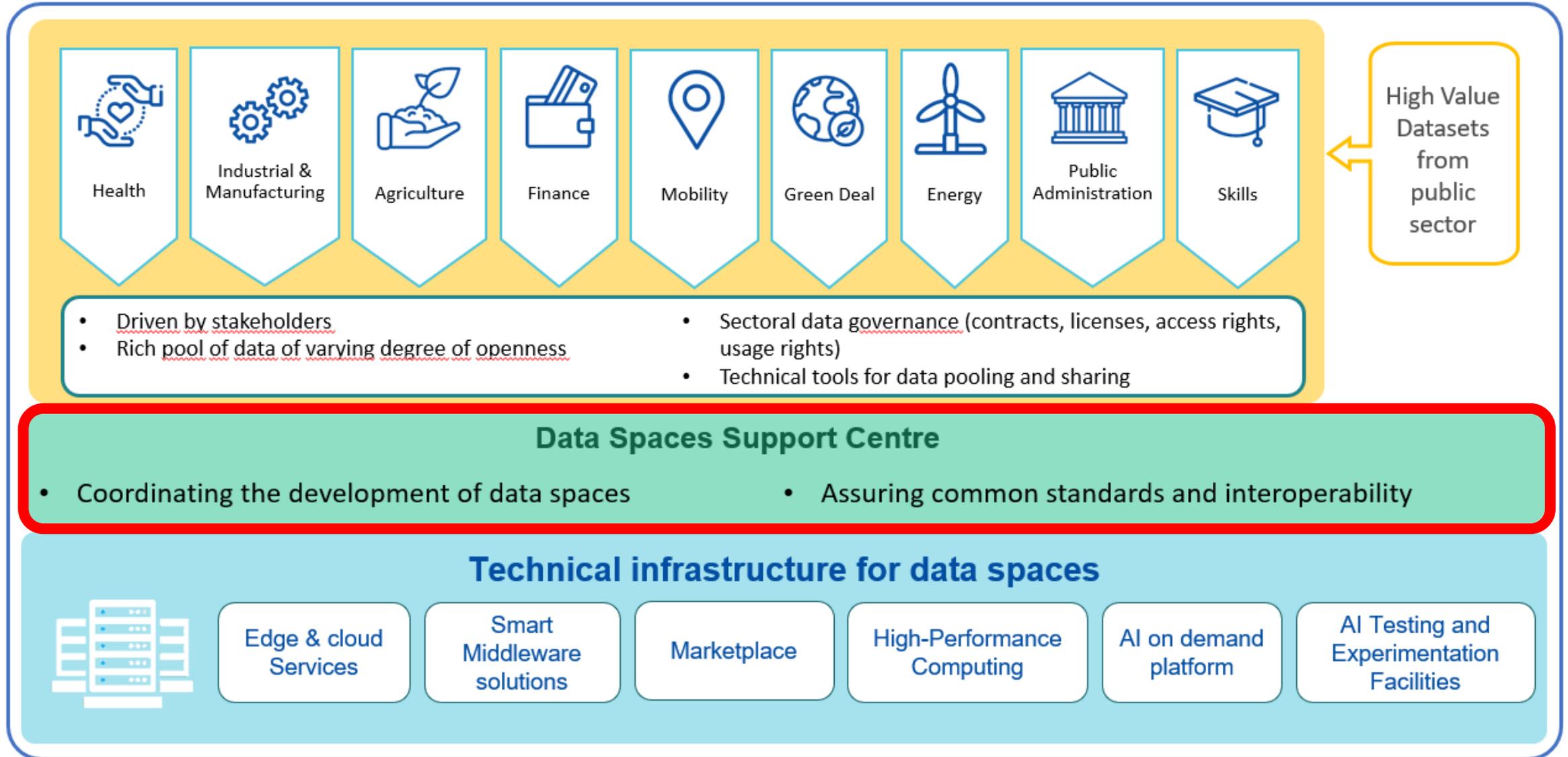
1st Introductory Webinar DSSC – EOSC Association – 26/6/2023

The European Data strategy



[Source: DG CNECT]

Common European data spaces



[Source: DG CNECT]



**DATA SPACES
SUPPORT CENTRE**

**Closely work with CSAs
and projects funded under
DIGITAL**

**Create a
network of
stakeholders**

**Identify the
common
requirements**

**Support the work of the
envisaged European
Data Innovation Board**

**Create a platform for
knowledge exchange**

Support the deployment of data spaces

[Source: DG CNECT]

DSSC Assets (1)



**DATA SPACES
SUPPORT CENTRE**

The **DSSC** assets are sustainable open resources that are developed and governed by the **Data Spaces Support Centre**.

A **repository of standards, specifications and open-source reference implementations** available for deploying data spaces.

**Data Spaces
Standards/
Technology
Landscape**

A consistent, coherent and comprehensive set of **guidelines to support the implementation, deployment and maintenance of data spaces**. The blueprint contains the conceptual model, building blocks, and recommended selection of standards, specifications and reference implementations identified in the data spaces technology landscape

**Data Space
Blueprint**

A **basic unit or component** that can be implemented and combined with other building blocks to **achieve the functionality of a data space**

**Data Space
Building
Blocks**

A document that **helps organizations and individuals** understand the requirements for **creating a data space**. It provides a multifaceted view of data spaces, highlighting **business, legal and governance, operational, functional, and technical** aspects to consider

Starter Kit

A consistent, coherent and comprehensive description of the **concepts and their relationships** that can be used to unambiguously explain what data spaces are about

**Conceptual
Model**

A **limited set of data spaces related terms**, where each term has a criterion as its definition. The criterion enables people to determine whether or not something is an instance/example of the concept to which the term refers

Glossary



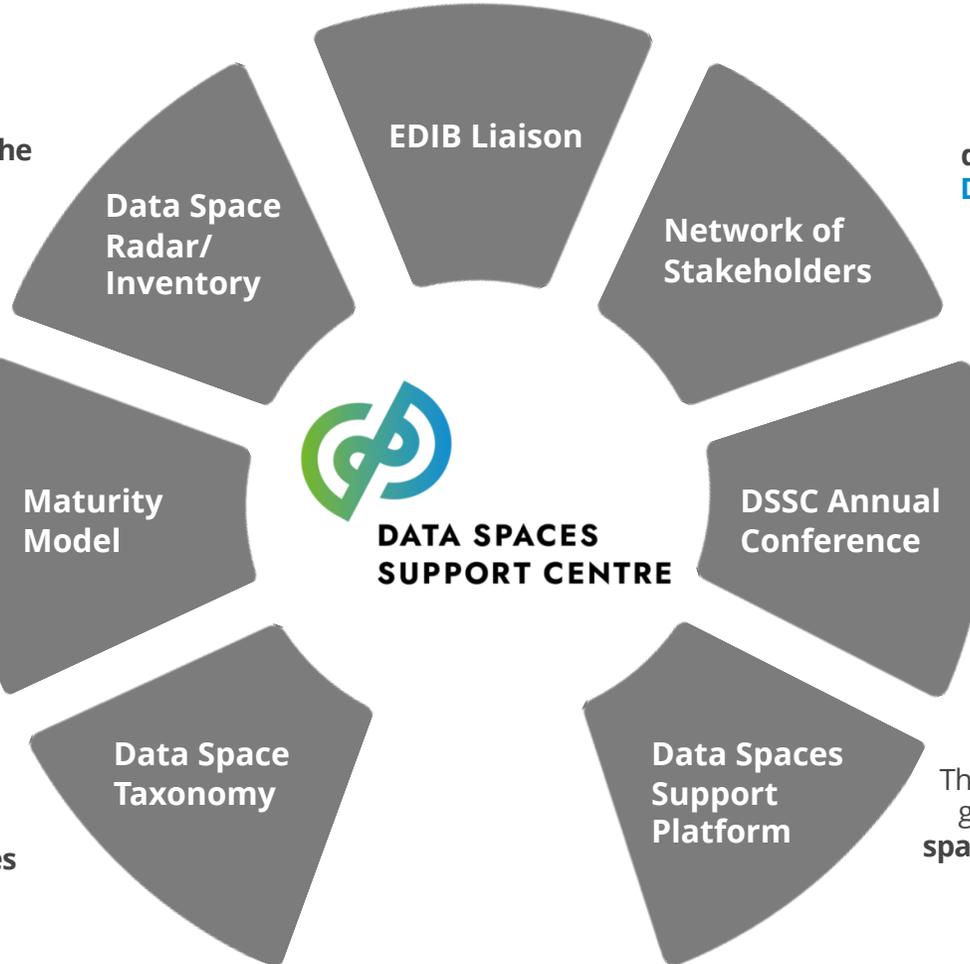
**DATA SPACES
SUPPORT CENTRE**

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

DSSC Assets (2)



A publicly accessible **tool to provide an overview of the data space initiatives**, their sectors, locations and approximate lifecycle stages



The **group of parties relevant to the development of data spaces** and with whom the **Data Spaces Support Centre** proactively engages in achieving its purpose and objectives.

Thematic organization of the **DSSC** Annual Conference with panels and workshops taking place once every year

A **classification scheme** used to **describe, analyse and organise data space initiatives** according to a defined set of characteristics

The platform opens and activates a place to host, grow and **curate discussions related to data spaces** and creates the single point of truth, a place where they can **access a knowledge base including assets** of the project

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DSSC Network of Stakeholders (NoS)



DSSC Network of Stakeholders

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

Initiatives and bodies DS need to collaborate with for alignment and/or holistic picture

Bring requirements, knowledge, influence, alignment

Collaborations and liaisons
Other relevant initiatives and bodies

Community of Practice (CoP)
Data Spaces initiatives
BB implementers

Strategic Stakeholder Forum (SSF)
Organisations with expertise in Data Spaces

SUPPORT

Data Spaces Support Centre

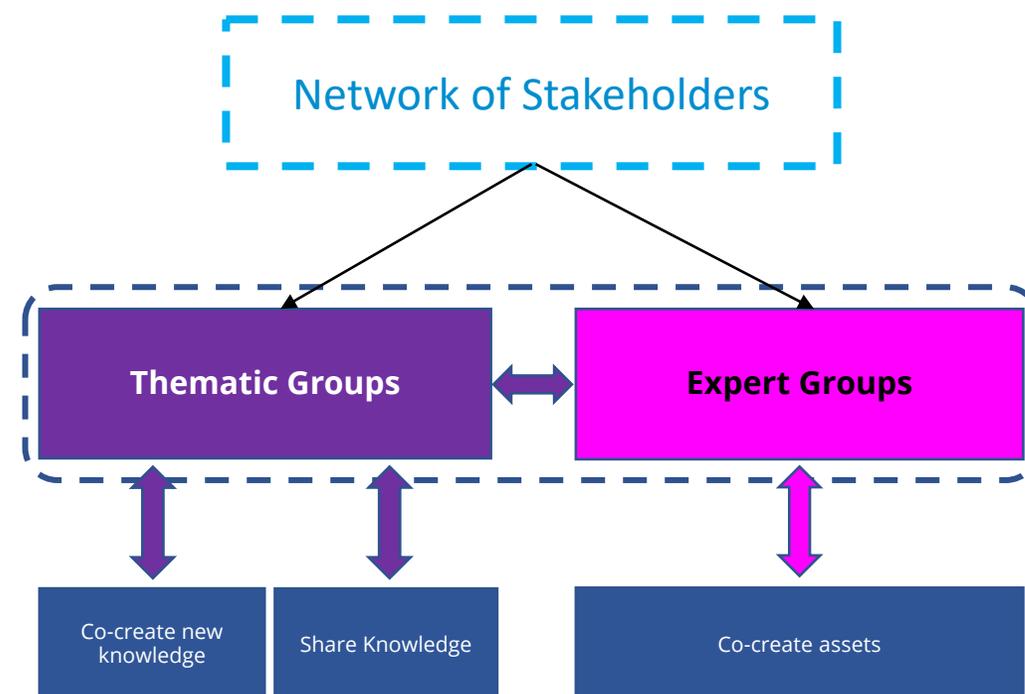
ASSETS

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Re-organisation of DSSC Network of Stakeholders

Members of the Network of Stakeholders can be further involved in the DSSC activities by assigning representatives to join:

- **DSSC Thematic Groups** – **Community-driven** group focused on **sharing** and **co-creating new knowledge**
- **DSSC Expert Groups** – **Blueprint-driven** group focused on **co-creating DSSC assets**



DSSC: Consortium



Partners



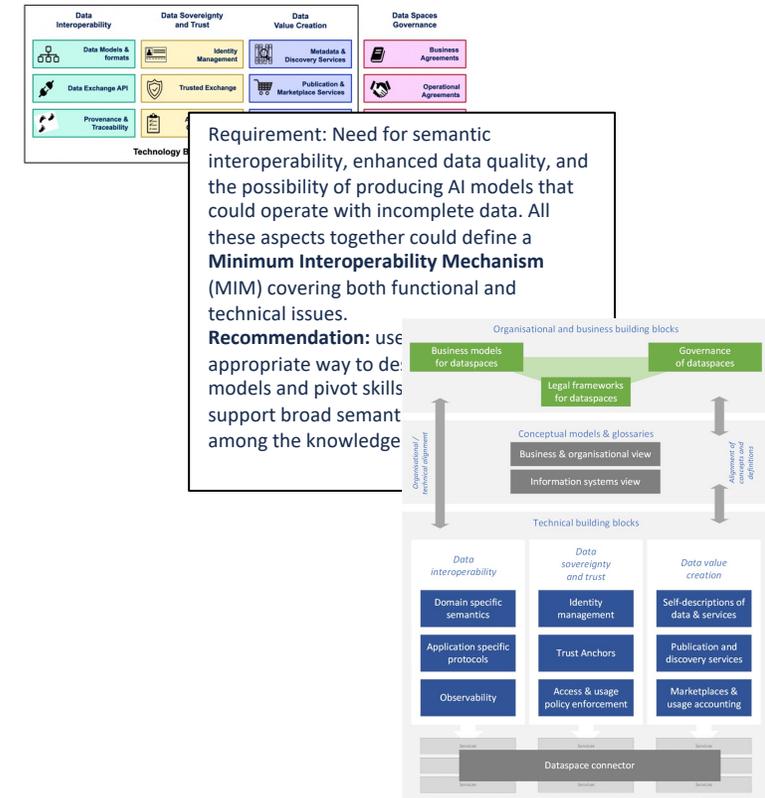
Associated Partners



Identification and synergies

■ Identifying requirements and building blocks

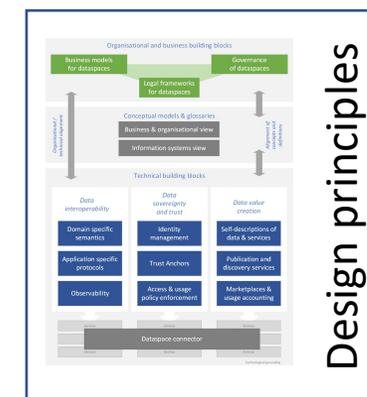
- Business, functional, operational, governance, technical, security, legal and ethics.
- Demonstrators and test infrastructure
- Common requirements
 - Interviews and workshops with Data Spaces CSA's
 - Input via support platform – forthcoming
- Common building blocks for data spaces
 - Building block taxonomy as part of Blueprint
 - A list of architectures and implementations



Identification and synergies

■ Identifying design principles for data spaces

- Engaging experts
 - Extends existing with new requirements
 - Best practices
 - New design principles emerging from deployments of data spaces, and policy objectives and ensures that foundational legal principles are embedded
- Annual update
 - Forthcoming September 2023
 - Common standards and open source technologies for data spaces
 - Standards and technologies landscape
 - Standardization plan



Data Interoperability	Application Specific Protocols	NCSS-LD	NCSS-LD
Data Interoperability	Application Specific Protocols	NGSIv2	FIWARE-NGSI v2 specifications
Data Interoperability	Application Specific Protocols	-	Details of the AAS Part 1 - Metamodel
Data Interoperability	Application Specific Protocols	-	Details of the AAS Part 2 - API
Data Interoperability	Application Specific Protocols	IRS	Item Relationship Service
Data Interoperability	Application Specific Protocols	Open Database Connectivity (ODBC)	Open Database Connectivity (ODBC)
Data Interoperability	Application Specific Protocols	OpenAPI specification	OpenAPI specification
Data Interoperability	Domain Specific Semantics	JSON-LD	JavaScript Object Notation for Link
Data Interoperability	Domain Specific Semantics	XML	XML schema
Data Interoperability	Domain Specific Semantics	-	Basic Formal Ontology
Data Interoperability	Domain Specific Semantics	ODATA	Open Data Protocol (Odata)
Data Interoperability	Domain Specific Semantics	-	Semantic Treehouse

Identification and synergies

- **Potential synergies between data spaces**
 - Identifies common areas of interest and toolboxes to support synergies in development paths of data spaces
 - Potential benefits to community
 - Conducts analysis of relevance for exchange between data spaces and across sectors;
 - the public and private
 - SMEs and other emerging borders
 - Coordinates progress towards data exchange and cross-sectoral data use
 - Community of practice touch points



Identification and synergies

- **Collaborative business governance and data governance models for running data spaces**
 - Practical examples on data sharing
 - Business models
 - Governance structures
 - Design approach for business and governance
- **Legal issues and market barriers**
 - Addresses complexity of legal frameworks
 - Liabilities in value chains, competition law
 - Market power asymmetries
 - Identifying obstacles in the interaction between data spaces



Documents

- Starter Kit V1.0
 - Entry point of your data space journey that guides you to relevant community resources and DSSC materials
- Glossary
 - The function of the glossary is to support smooth information sharing and co-development between the different data space initiatives and people involved and working with the Data Spaces Support Centre (DSSC). The secondary objective is to establish a common vocabulary for DSSC communication and publications of the DSSC
- Forthcoming
 - Synergies
 - Design principles
 - Building blocks taxonomy
 - Business, legal, governance
 - Standards landscape
 - Conceptual model of data spaces
 - Blueprint
 - Etc.
- Follow dssc.eu

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**DATA SPACES
SUPPORT CENTRE**

Version 1.0 | March 2023

**Starter Kit for Data Space
Designers**



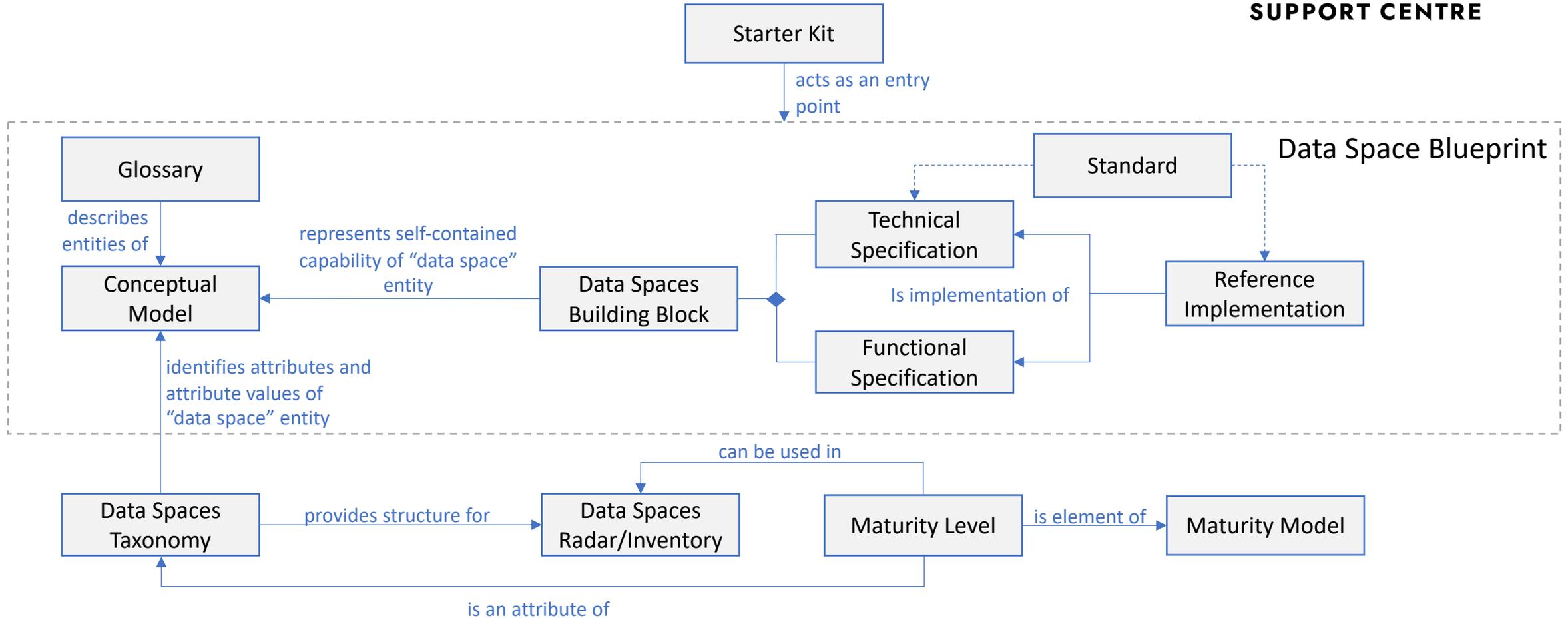
DATA SPACES
SUPPORT CENTRE

Version 1.0 | March 2023

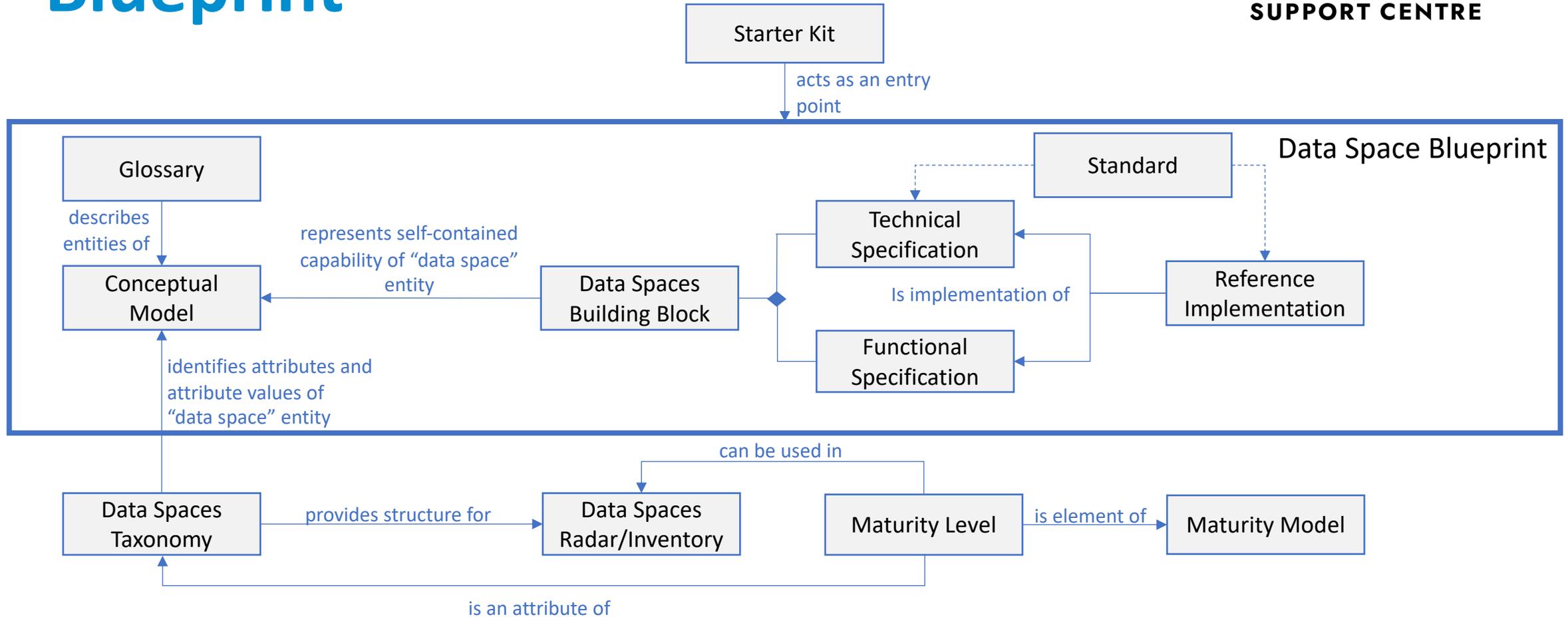
DSSC Glossary

DSSC.EU

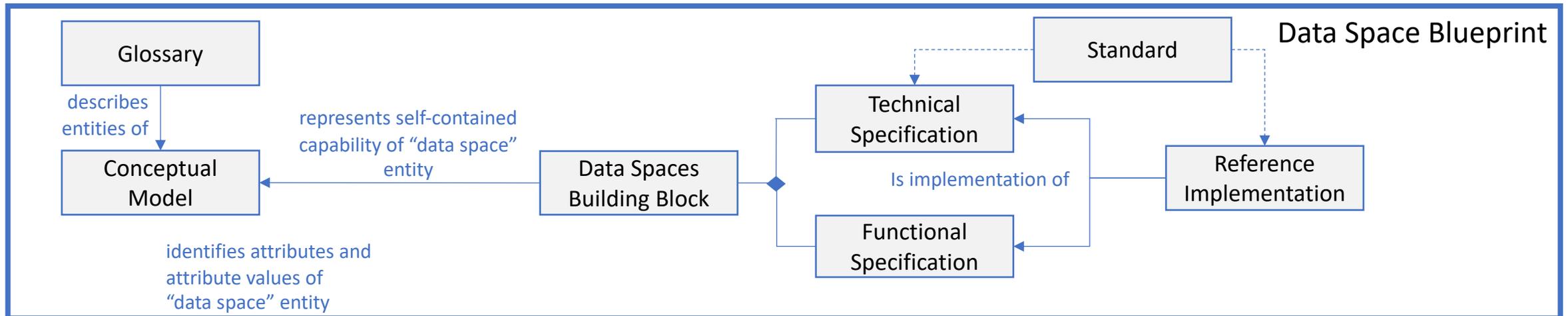
Data Space Asset Model



Data Space asset Model => Blueprint



Data Space Blueprint Structure

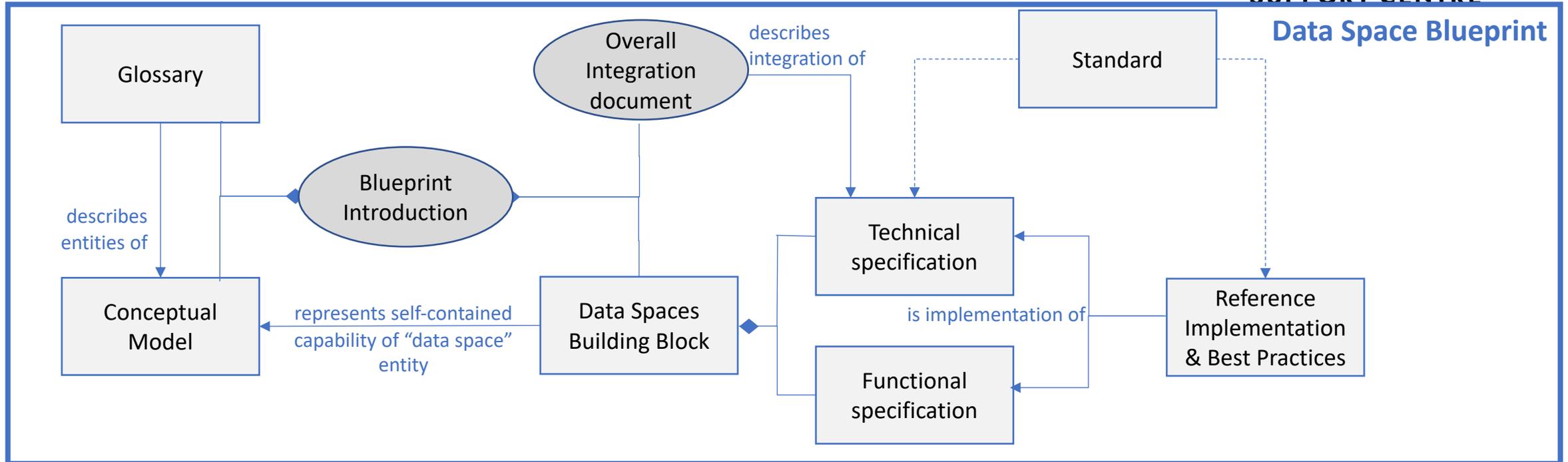


Data Spaces Blueprint Structure



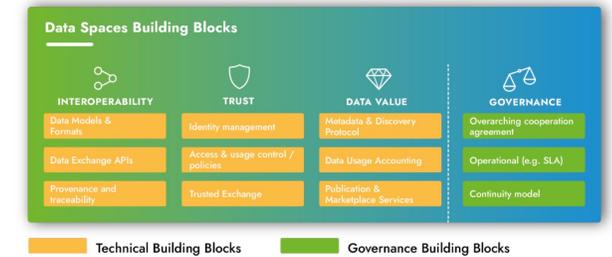
DATA SPACES
SUPPORT CENTRE

Data Space Blueprint



Our approach

- We started using the OpenDEI building block model (Starter Kit)
- We used inputs from our community and updated the collection of building blocks
- We positioned the business, governance and legal aspects more clearly
- We used the latest insights from work on technological convergence
- We incorporated insights from relevant projects and initiatives



Two categories of Building Blocks

1. Business, Governance and Legal building blocks

These describe capabilities needed on a business level.

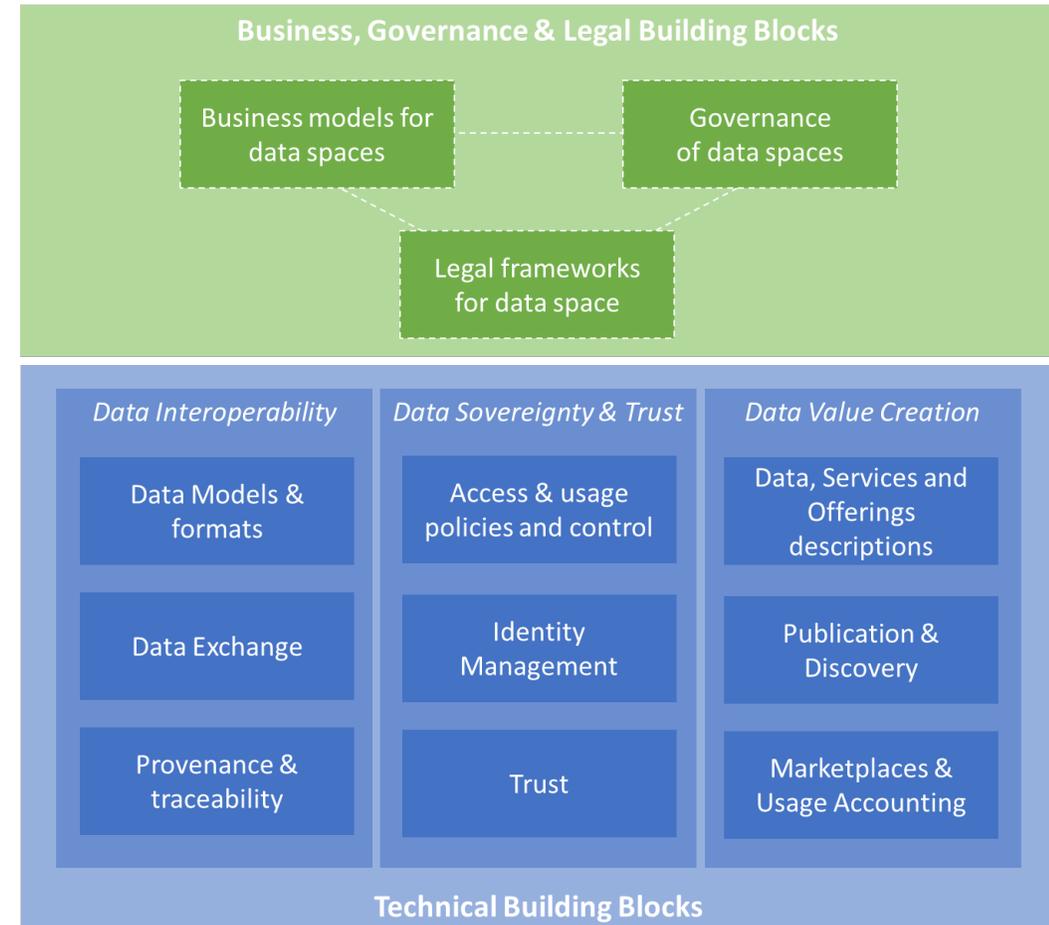
2. Technical Building Blocks

These describe capabilities needed on a technical level.

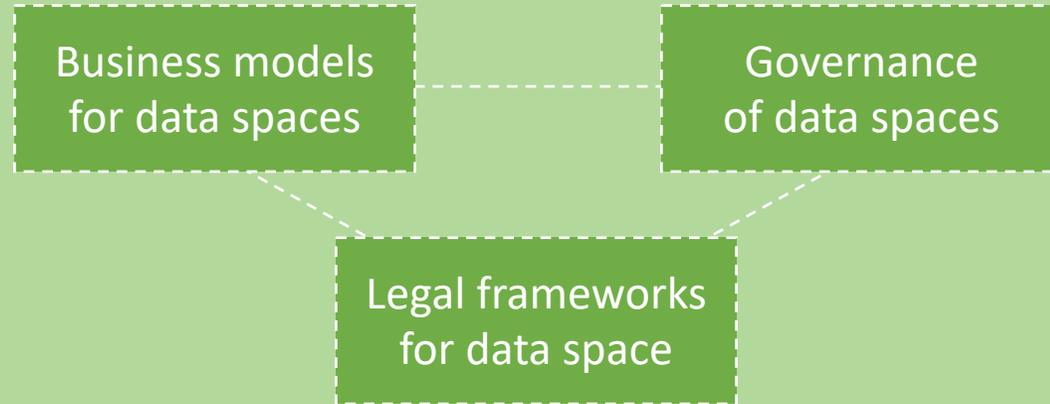
Data Interoperability

Data Sovereignty & Trust

Data Value Creation



Business, Governance & Legal Building Blocks



Notes: **DATA SPACES
SUPPORT CENTRE**

- The green building blocks are currently being refined to a more granular level.
- The blue (technical) building blocks can be used to assess blueprints of CSAs/data space initiatives
- Example question(s): “how do you handle identity management, data exchange, (...), in your data space initiative/your blueprint?”

Data Interoperability

Data Models & formats

Data Exchange

Provenance & traceability

Data Sovereignty & Trust

Access & usage policies and control

Identity Management

Trust

Data Value Creation

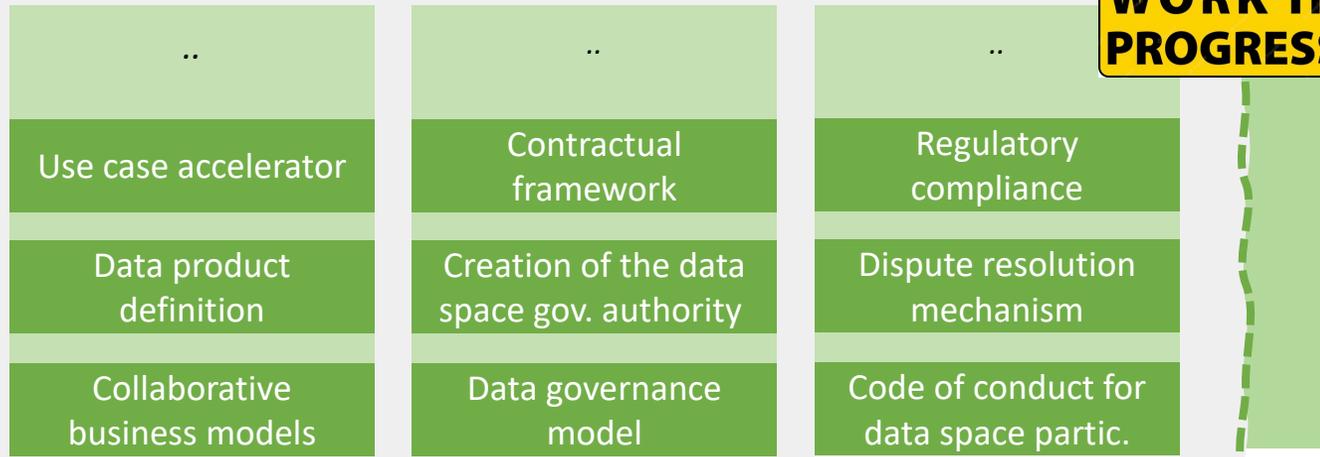
Data, Services and Offerings descriptions

Publication & Discovery

Marketplaces & Usage Accounting

Technical Building Blocks

Business, governance and legal building blocks



**DATA SPACES
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This picture shows the current state-of-discussion in the relevant working groups in WP4 and WP5.

Data Interoperability

Data Models & formats

Data Exchange

Provenance & traceability

Data Sovereignty & Trust

Access & usage policies and control

Identity Management

Trust

Data Value Creation

Data, Services and Offerings descriptions

Publication & Discovery

Marketplaces & Usage Accounting

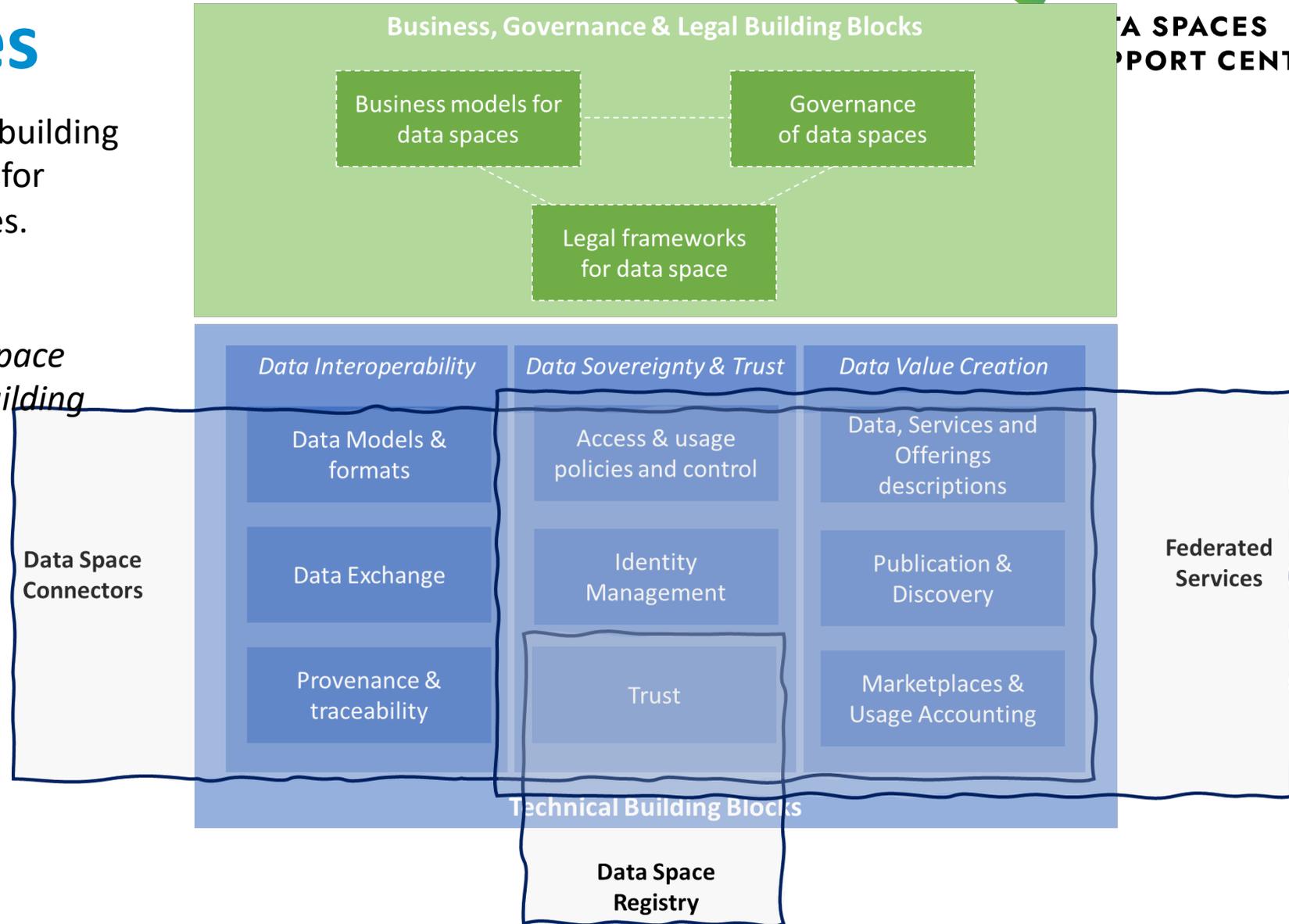
Technical Building Blocks

Services to implement (technical) capabilities



DATA SPACES
SUPPORT CENTRE

- Not to be confused with building blocks, but very relevant for implementing data spaces.
- **Data Space Connectors**
e.g. discussion on Data Space Protocol links to many building blocks
- **Data Space Registry**
- **Federated Services**

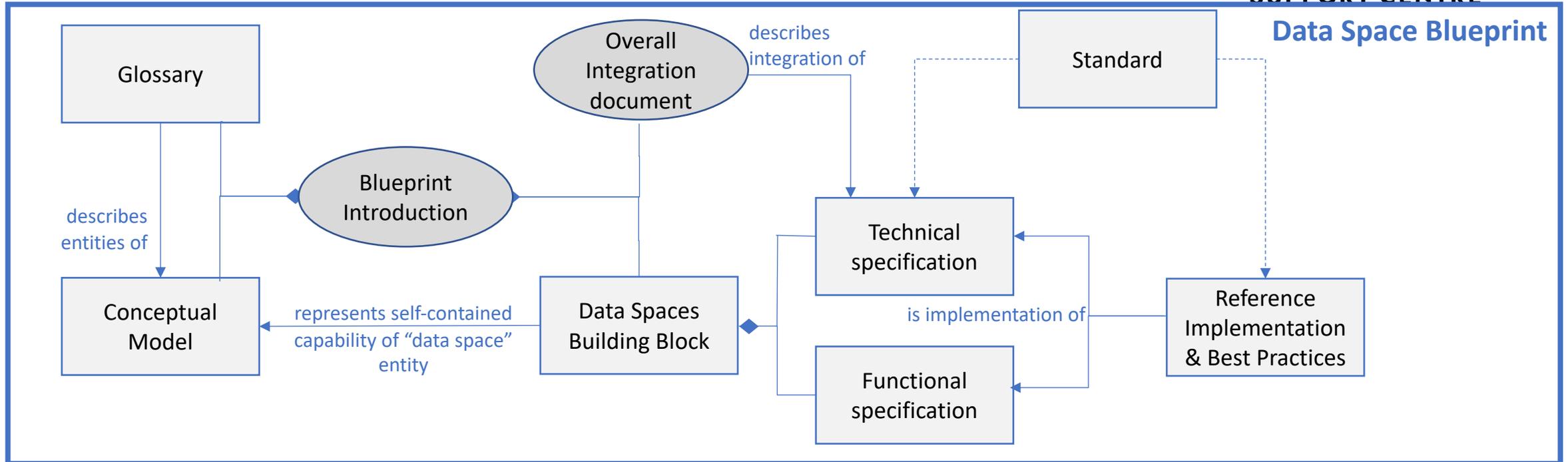


Data Spaces Blueprint Structure



DATA SPACES
SUPPORT CENTRE

Data Space Blueprint

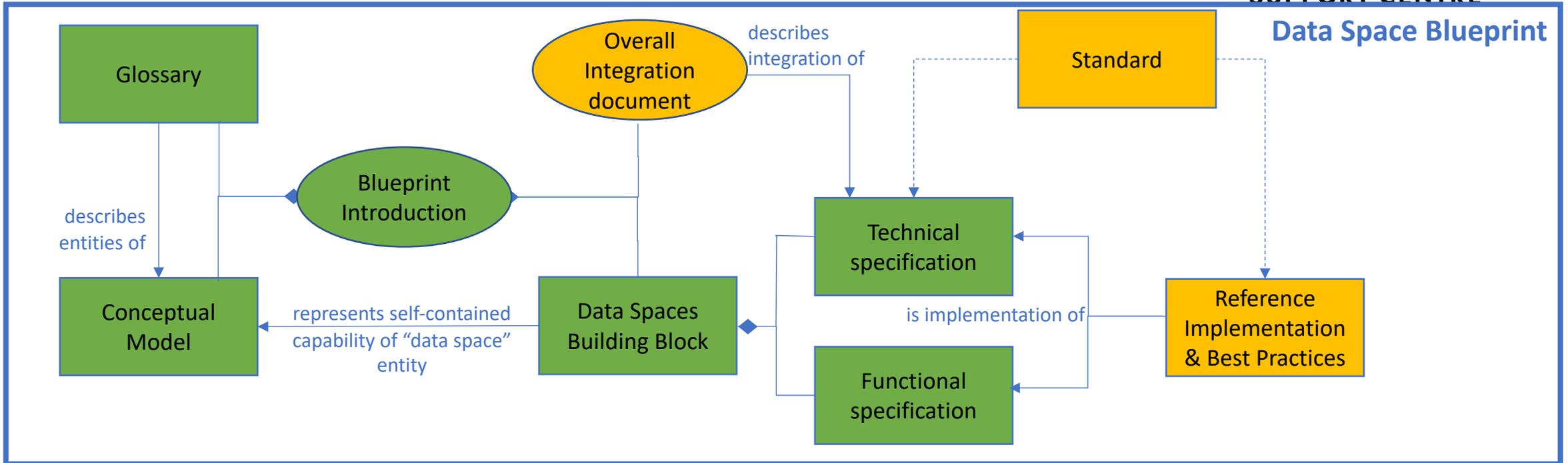


Data Spaces Blueprint Structure



DATA SPACES
SUPPORT CENTRE

Data Space Blueprint



V0.5 – Publication: September 2023

V1.0 – Publication: April 2024

Get in-touch!

Support & newsletter

General questions about the Data Spaces Support Centre? Or need advice on data spaces?

We are here to help you! Do you have questions about the DSSC? Would you like to learn more about the concept of data spaces? Do you need advice on how to set up a data space? Are you interested in a specific asset? For these and all other questions – contact us!

First name Last name

Email

Organisation/Company

Subject

Please select the type of your request

Subscription to the DSSC newsletter

Your Message

Declaration: By setting the check mark I declare that my registered personal data is electronically processed and saved for the purpose of processing of my inquiry. I am free to cancel this agreement at any time by means of a message to contact@dssc.eu / support@dssc.eu / newsletter@dssc.eu. For more information please see our data privacy policy.

Get in touch via contact@dssc.eu and sign up to the DSSC newsletter following this [link](#).



Data Spaces Support Centre

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