

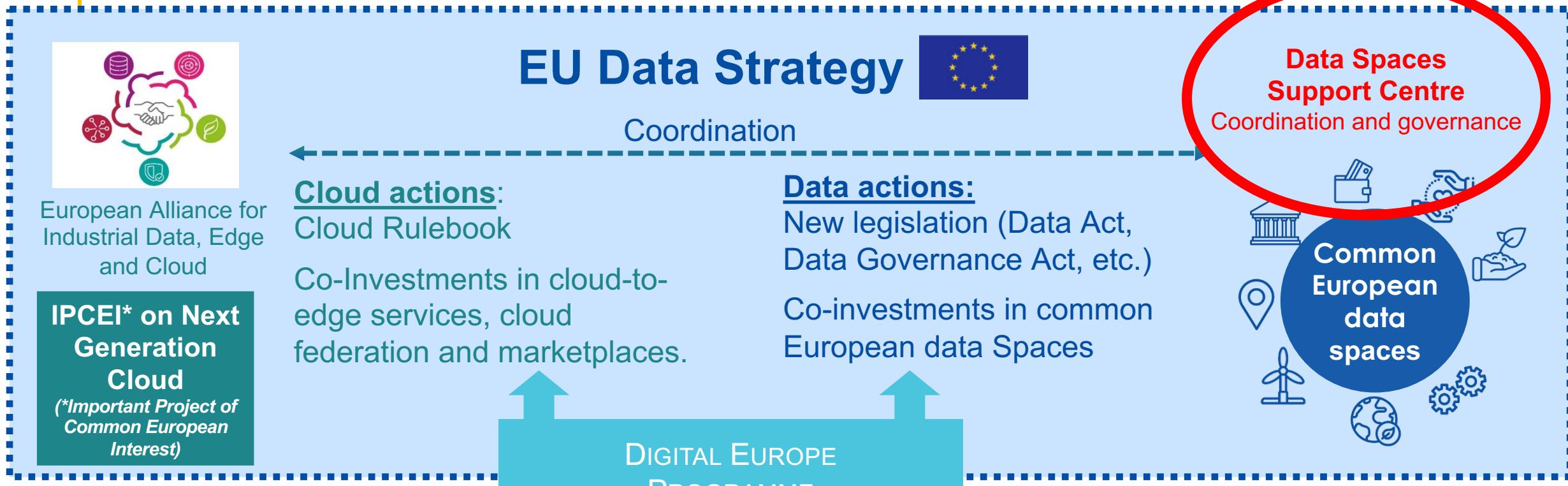


**DATA SPACES
SUPPORT CENTRE**

DATA SPACES SUPPORT CENTRE

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

The European Data strategy



[Source: DG CNECT]



Common European data spaces



Health



Industrial &
Manufacturing



Agriculture



Finance



Mobility



Green Deal



Energy



Public
Administration



Skills

High Value
Datasets
from
public
sector

- Driven by stakeholders
- Rich pool of data of varying degree of openness

- Sectoral data governance (contracts, licenses, access rights, usage rights)
- Technical tools for data pooling and sharing

Data Spaces Support Centre

- Coordinating the development of data spaces
- Assuring common standards and interoperability

Technical infrastructure for data spaces



Edge & cloud
Services

Smart
Middleware
solutions

Marketplace

High-Performance
Computing

AI on demand
platform

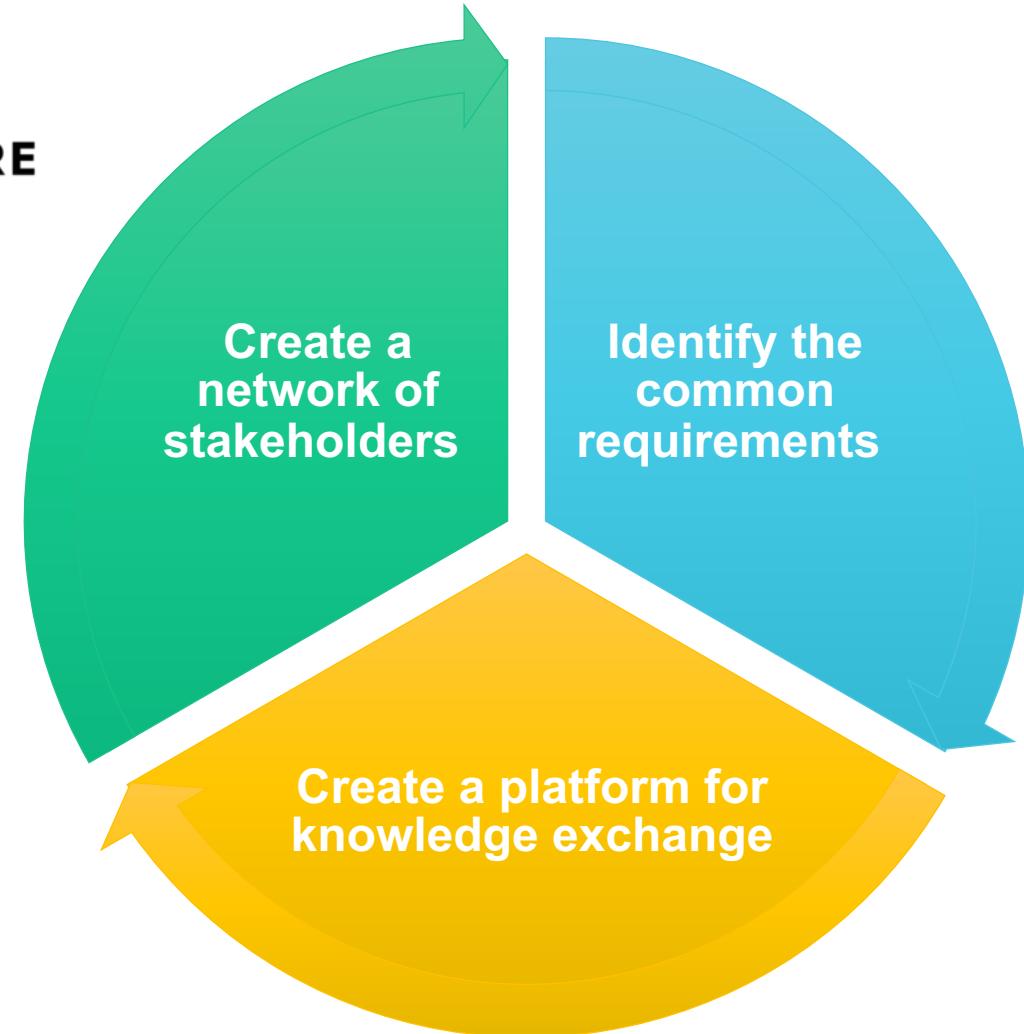
AI Testing and
Experimentation
Facilities

[Source: DG CNECT]



DATA SPACES SUPPORT CENTRE

Closely work with CSAs
and projects funded under
DIGITAL



Support the work of the
envisaged European
Data Innovation Board

[Source: DG CNECT]

Support the deployment of data spaces

DSSC Assets (1)

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.

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

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

Data Spaces Standards/
Technology Landscape

Data Space Building Blocks

Conceptual Model

Data Space Blueprint

Starter Kit

Glossary



DATA SPACES
SUPPORT CENTRE

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

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

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

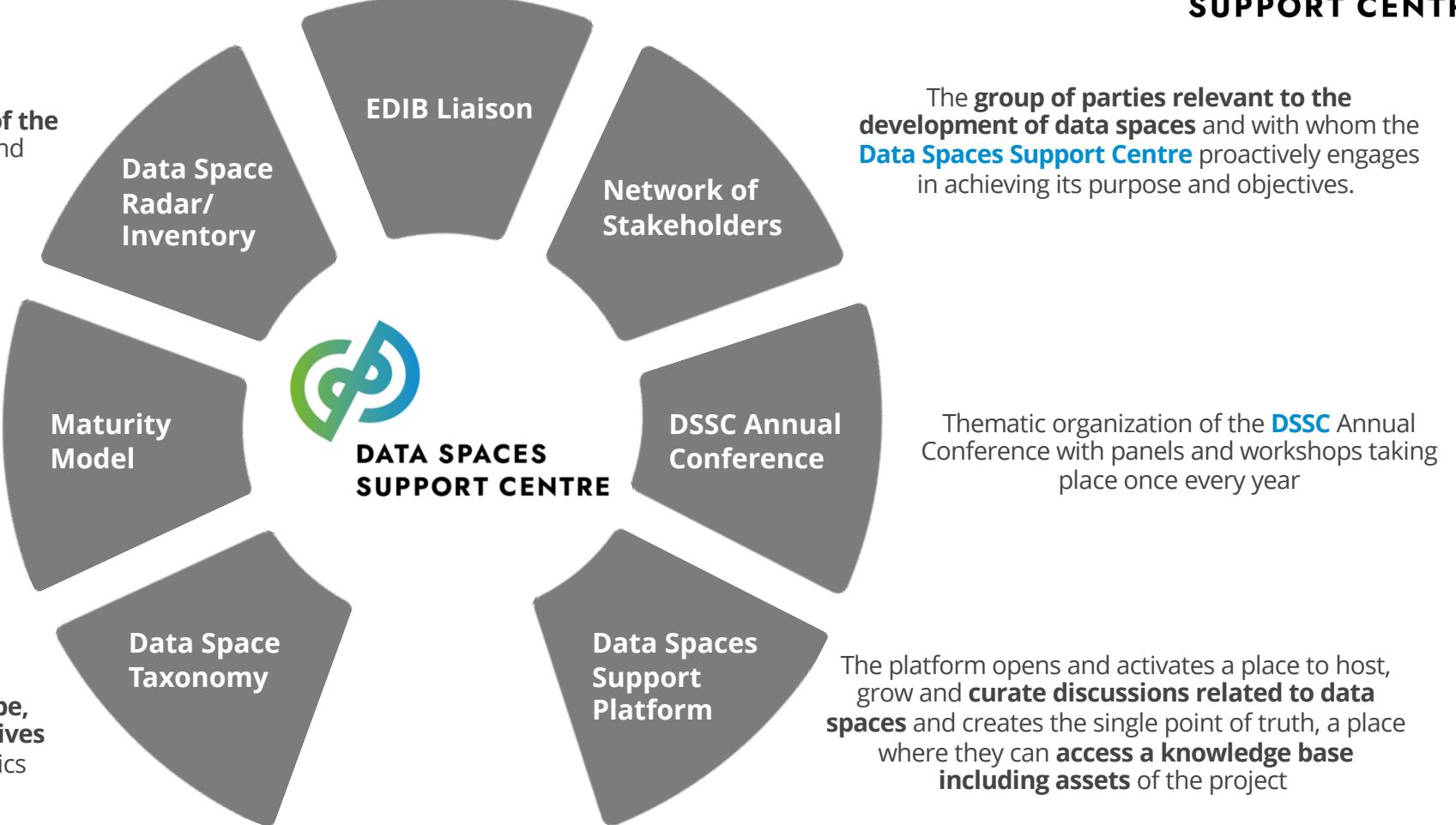


Funded by
the European Union

DSSC Assets (2)



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



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

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

DSSC Network of Stakeholders (NoS)



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

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

Community of Practice (CoP)
Data Spaces initiatives
BB implementers

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

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

SUPPORT

Data Spaces Support Centre

ASSETS

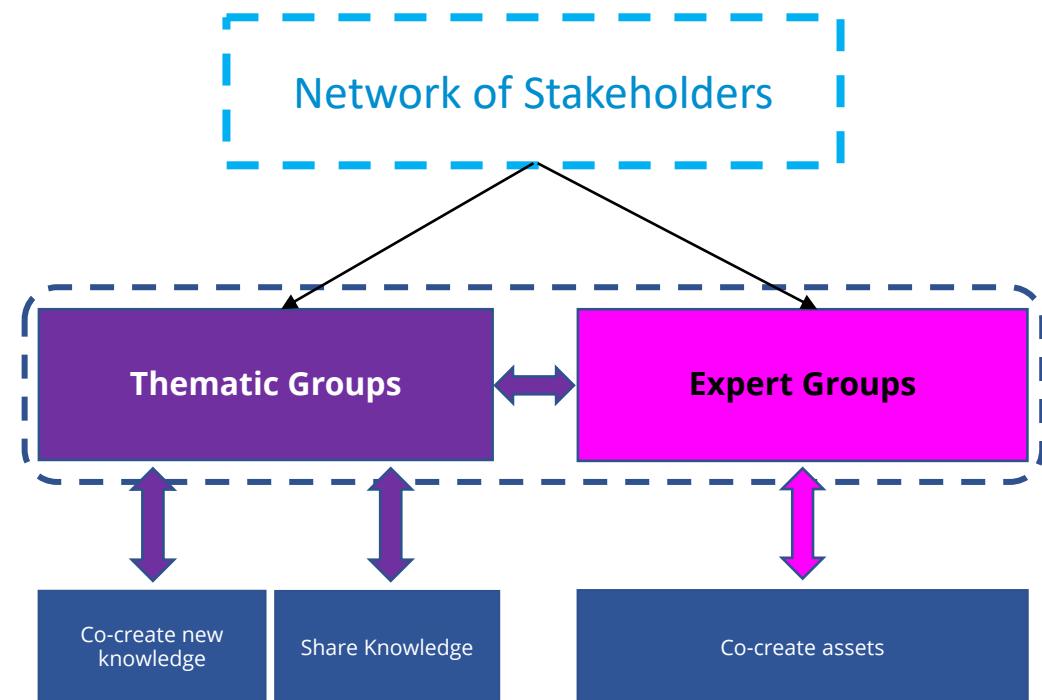
The Data Spaces Support Centre receives funding from the European Union Digital Europe Programme under grant agreement n° 101083412.

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**



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

DSSC: Consortium



Partners



Associated Partners



Identification and synergies



Identifying requirements and building blocks

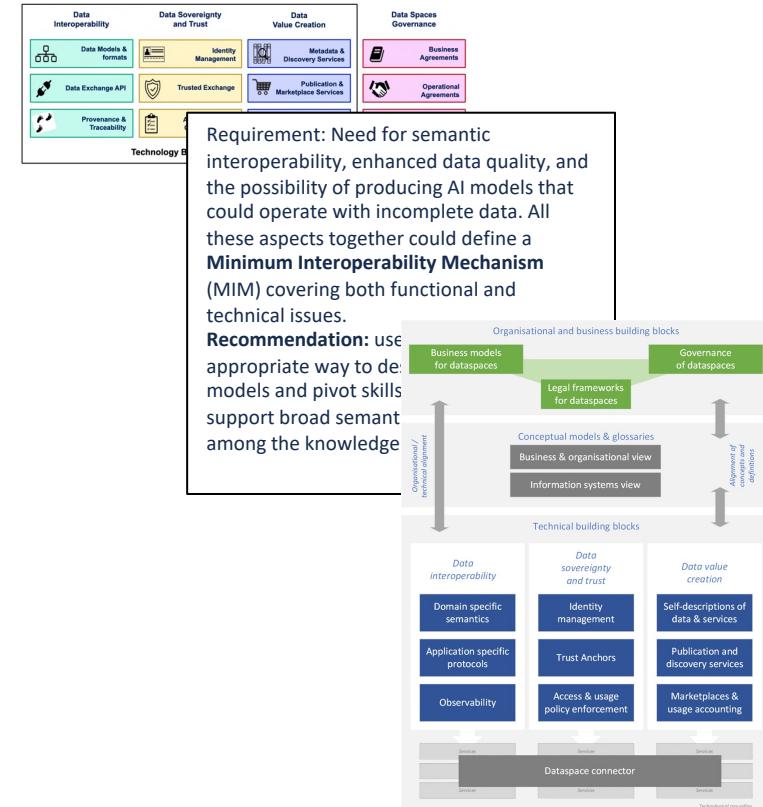
- Business, functional, operational, governance, technical, security, legal and ethics.
- Demonstrators and test infrastructure

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



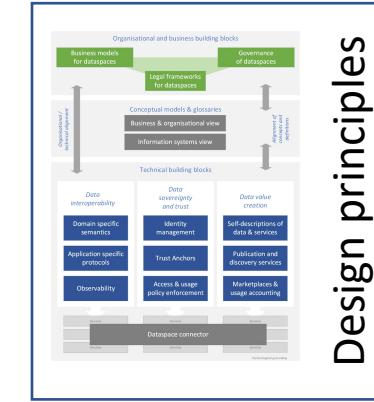
The Data Spaces Support Centre receives funding from the European Union Digital Europe Programme under grant agreement n° 101083412.

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	NGSI-LD	NGSI-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	IRIS	Item Relationship Service
Data Interoperability	Application Specific Protocols	OpenAPI specification	Open Database Connectivity (ODBC)
Domain Specific Semantics	Domain Specific Semantics	JSON-LD	Open API specification
Domain Specific Semantics	Domain Specific Semantics	XML	JavaScript Object Notation for Linked Data
Domain Specific Semantics	Domain Specific Semantics	OData	XML schema
Domain Specific Semantics	Domain Specific Semantics	-	Basic Formal Ontology
Domain Specific Semantics	Domain Specific Semantics	-	Open Data Protocol (Odata)
Domain Specific Semantics	Domain Specific Semantics	-	Semantic Treehouse

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

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



Synergies

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

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



Business,
governance, legal

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

Documents

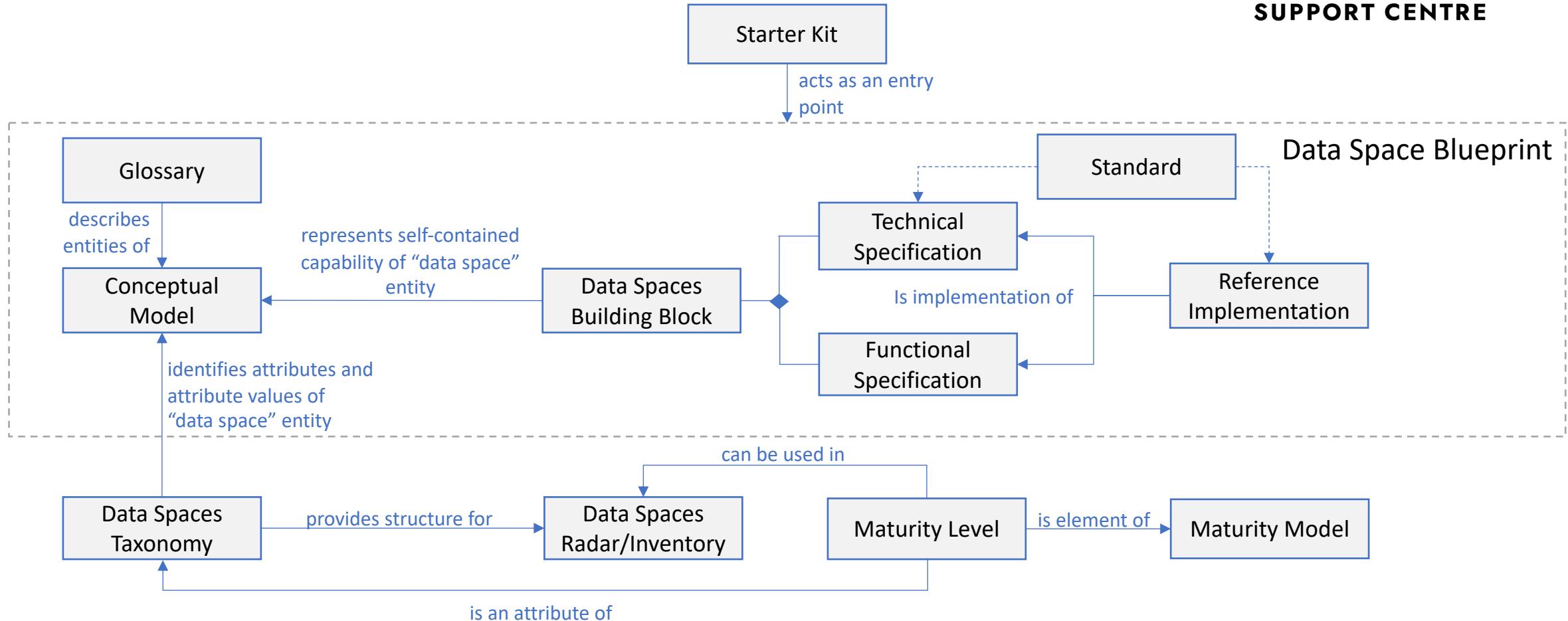
- Starter Kit V1.0
 - Entry point of your data space journey that guides you to relevant community resources and DSSC materials
- Glossary
 - The function of the glossary is to support smooth information sharing and co-development between the different data space initiatives and people involved and working 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

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

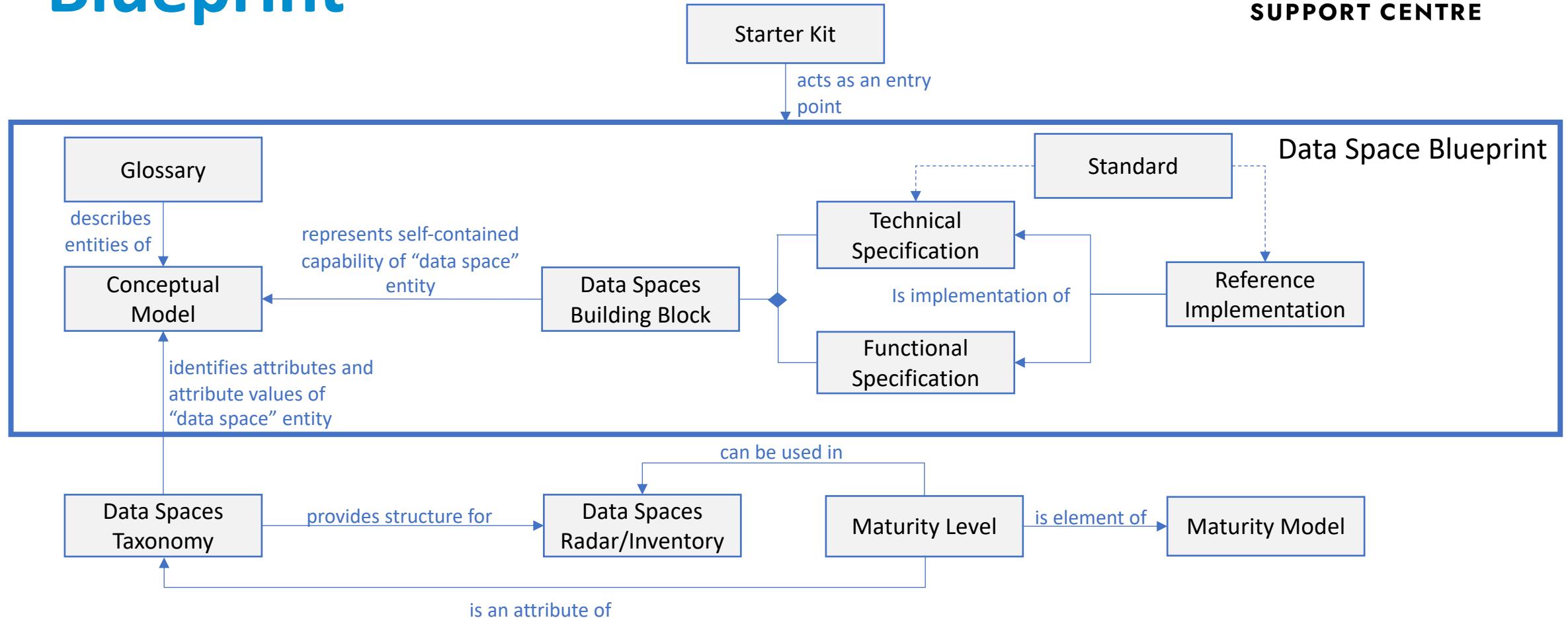
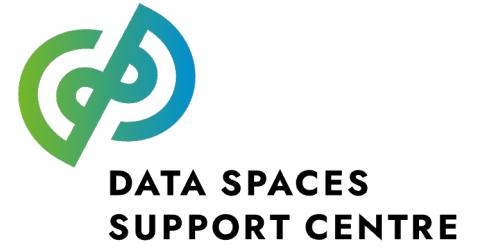


DSSC.EU

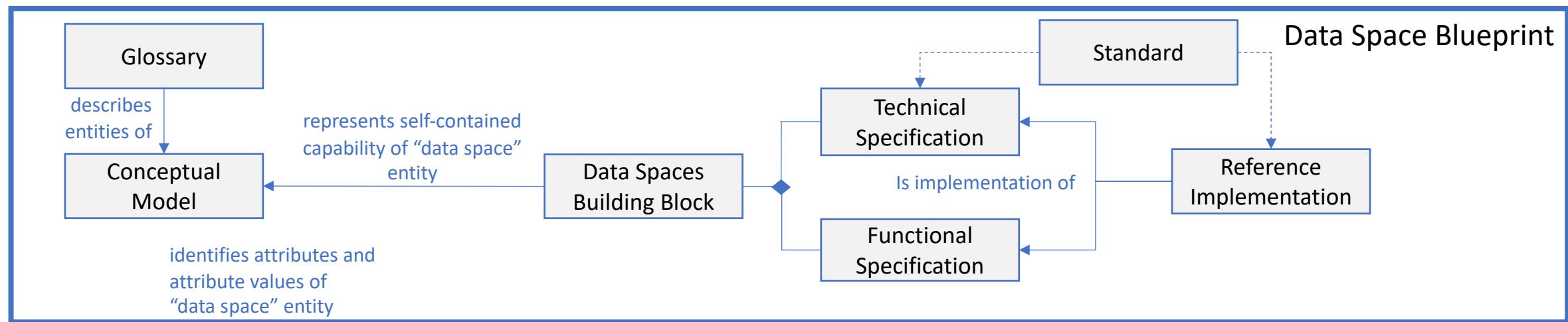
Data Space Asset Model



Data Space asset Model => Blueprint



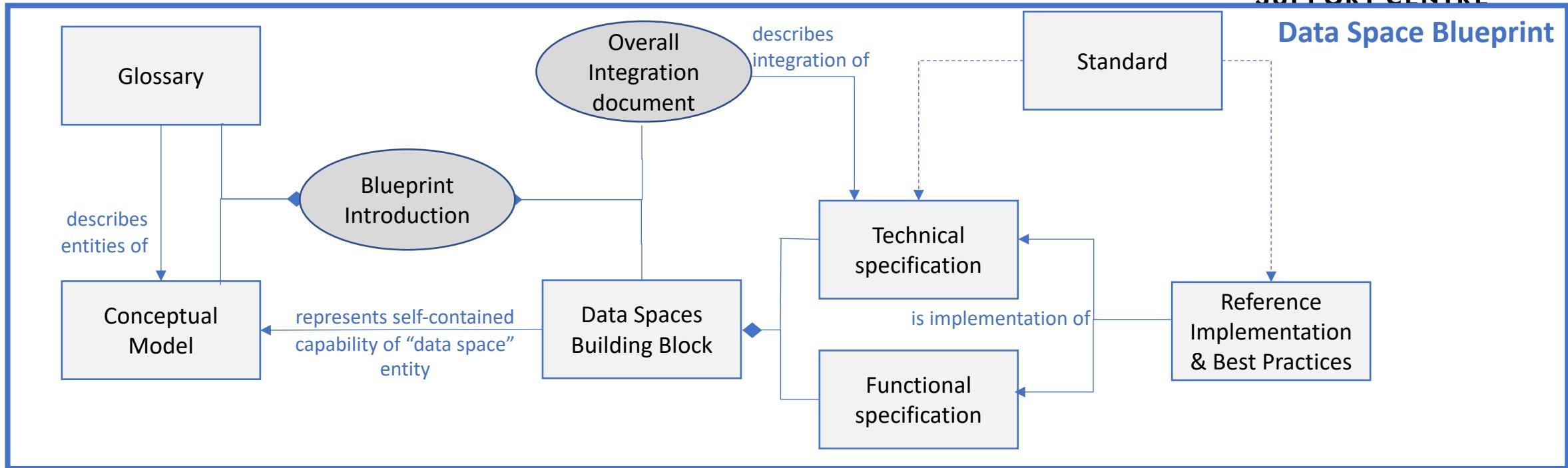
Data Space Blueprint Structure





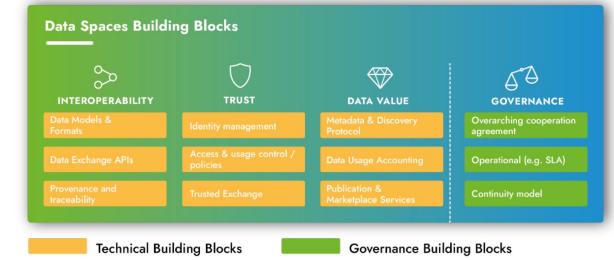
DATA SPACES
SUPPORT CENTRE

Data Spaces Blueprint Structure



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.

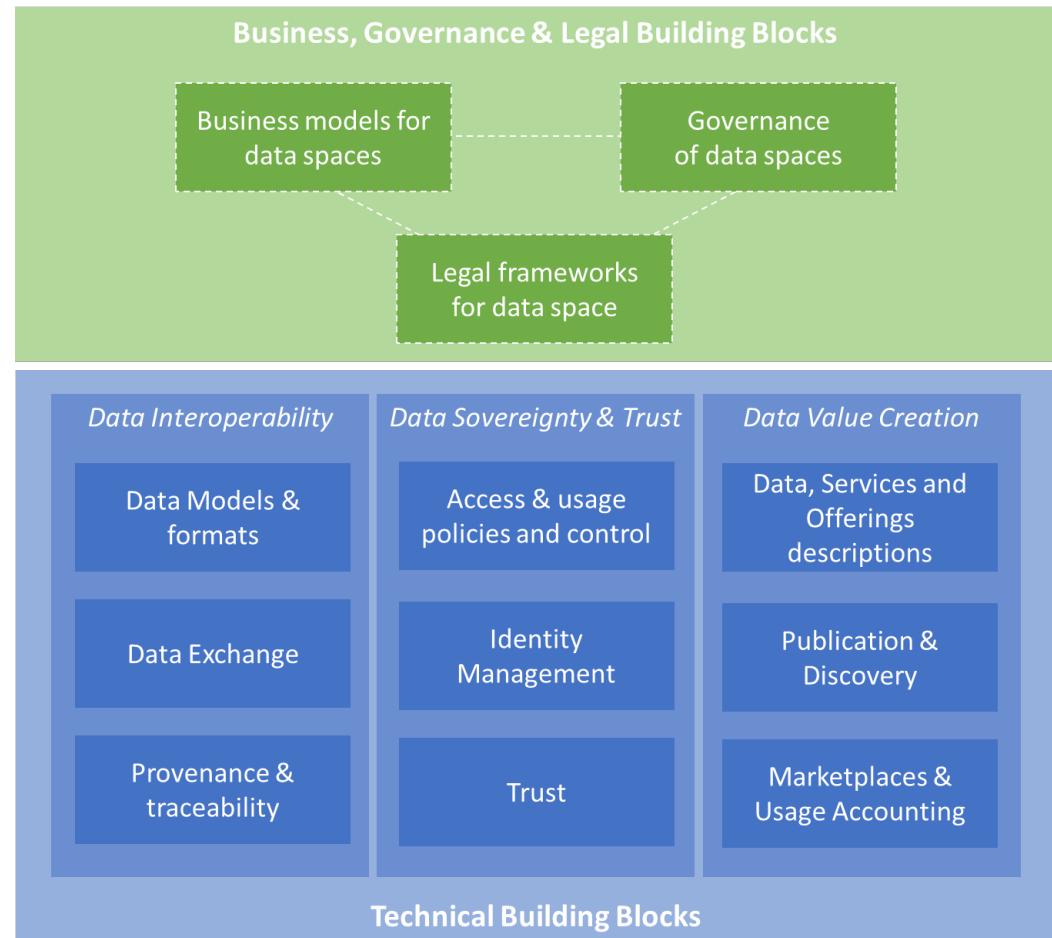
2. Technical Building Blocks

These describe capabilities needed on a technical level.

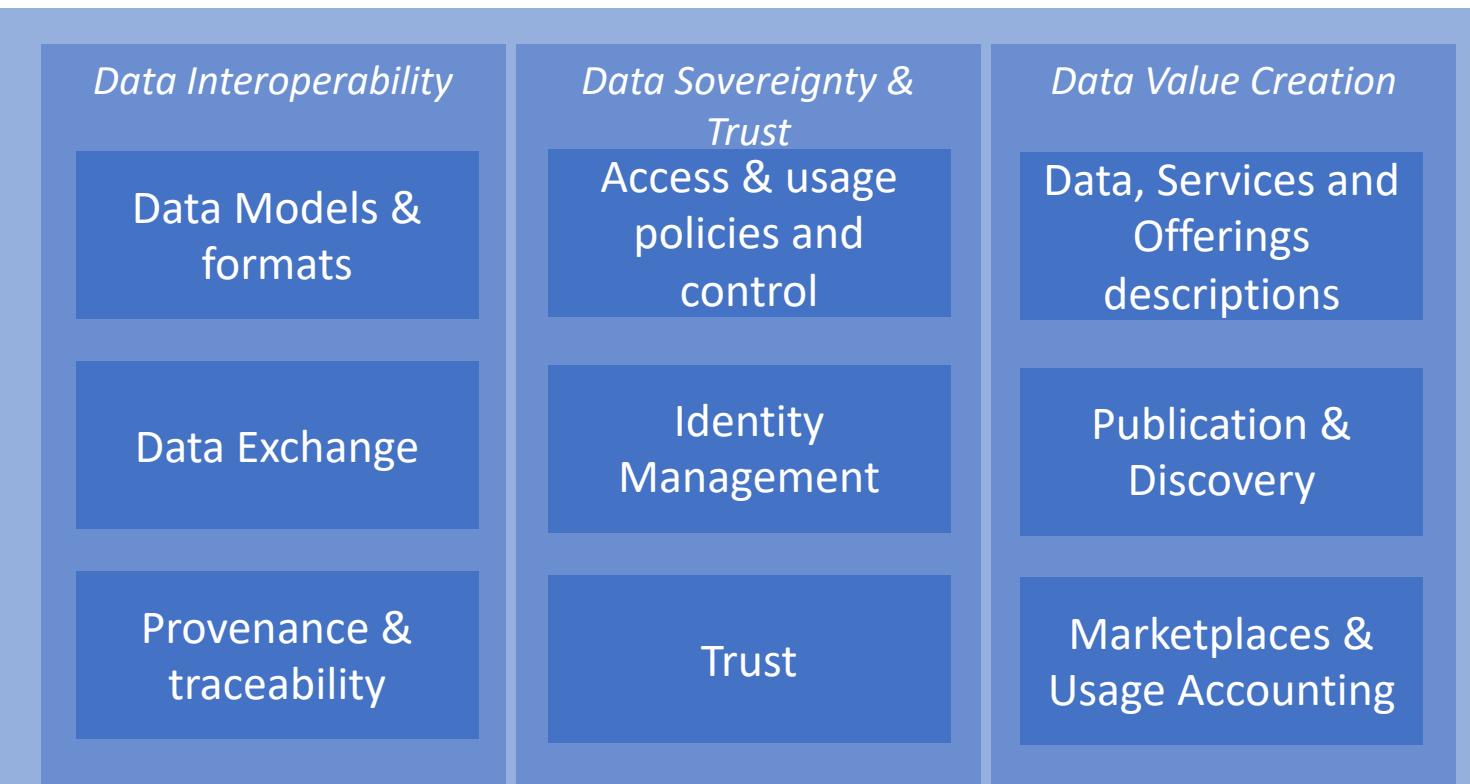
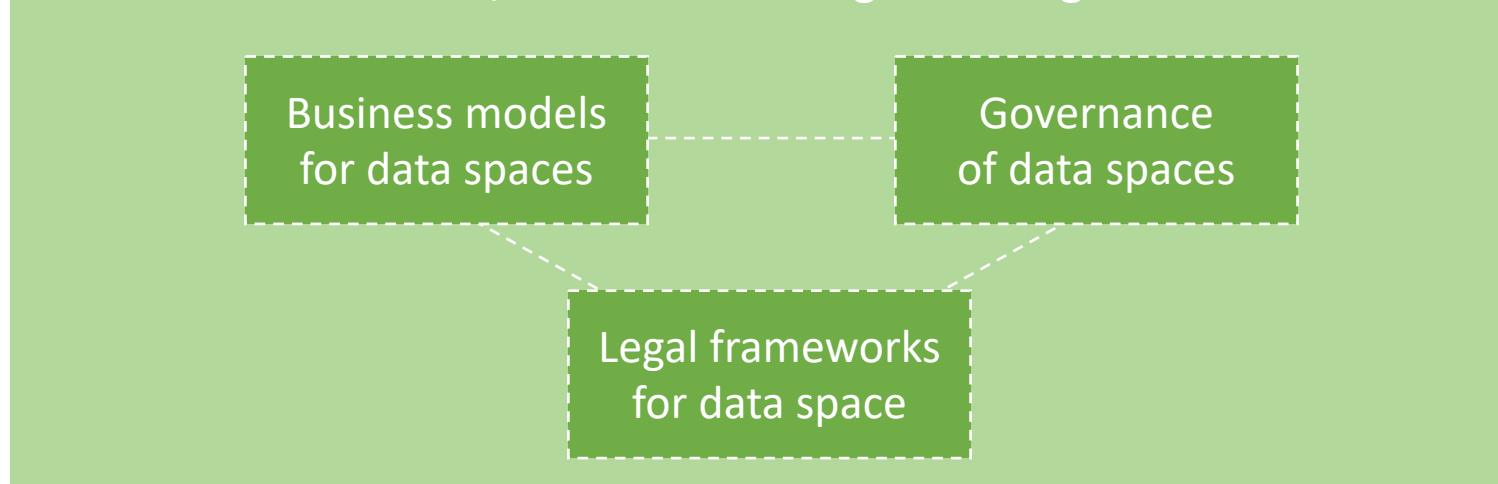
Data Interoperability

Data Sovereignty & Trust

Data Value Creation



Business, Governance & Legal Building Blocks



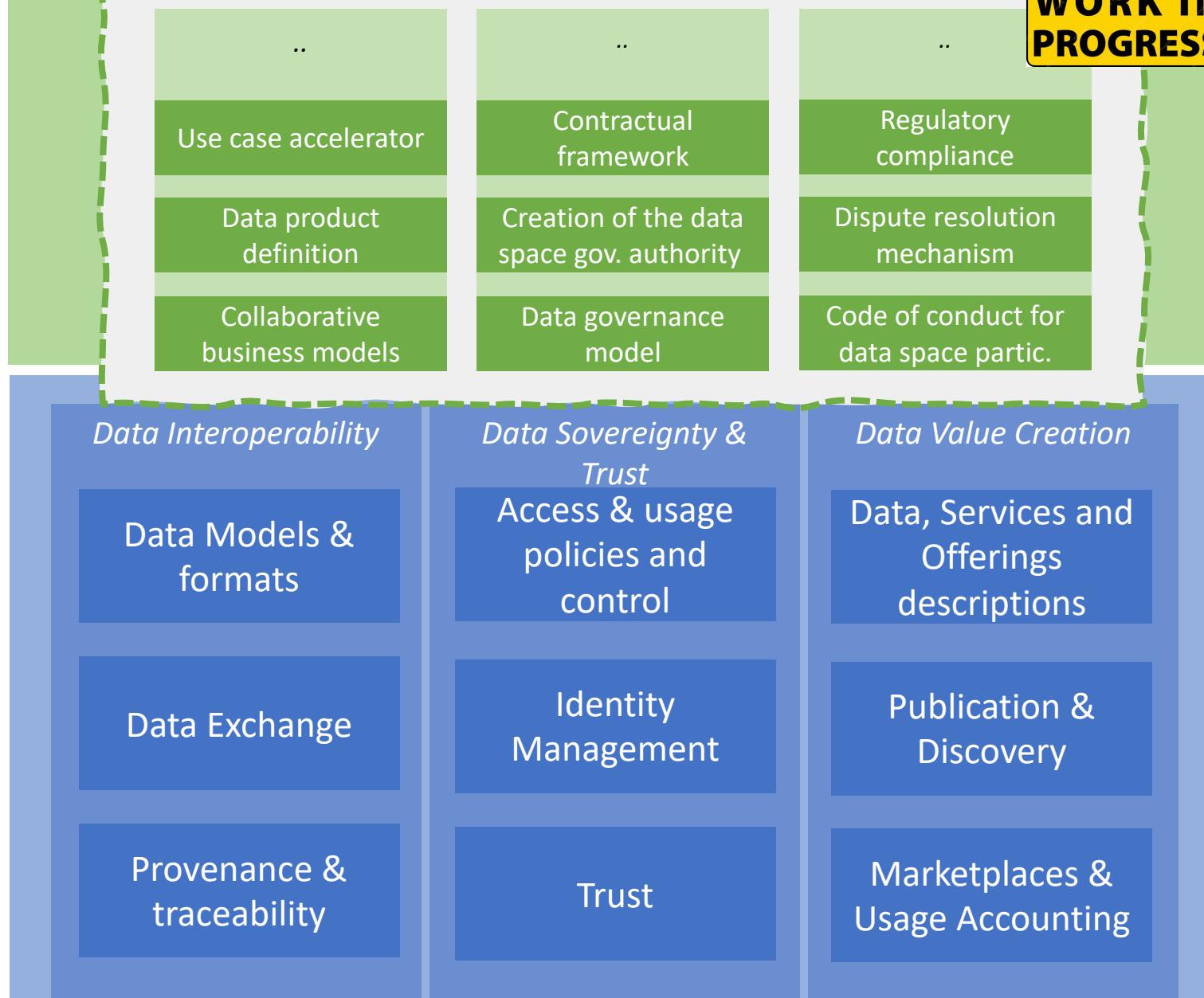
Technical Building Blocks



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?”

Business, governance and legal building blocks



Technical Building Blocks

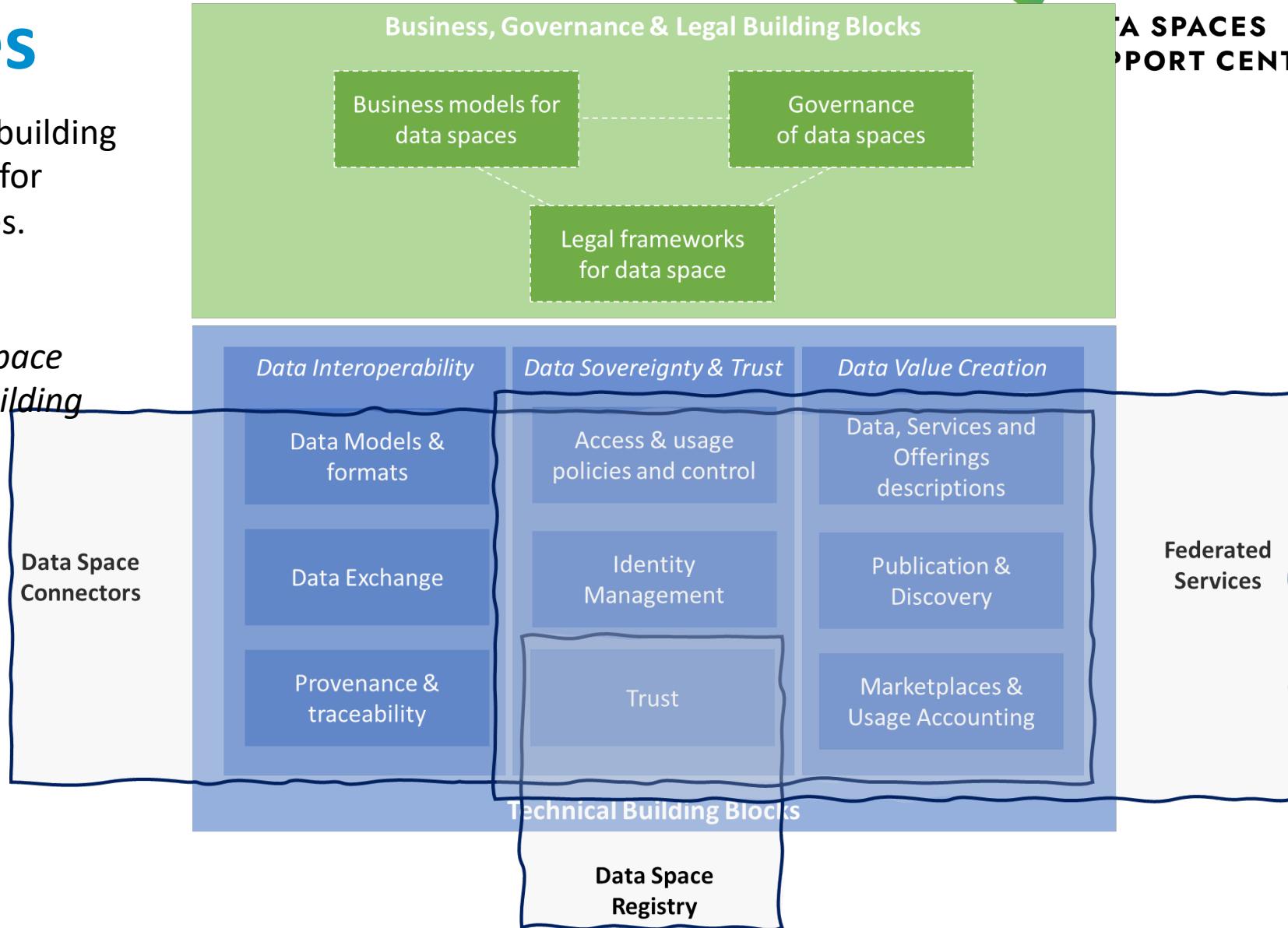


This pictures shows the current state-of-discussion in the relevant working groups in WP4 and WP5.

Services to implement (technical) capabilities



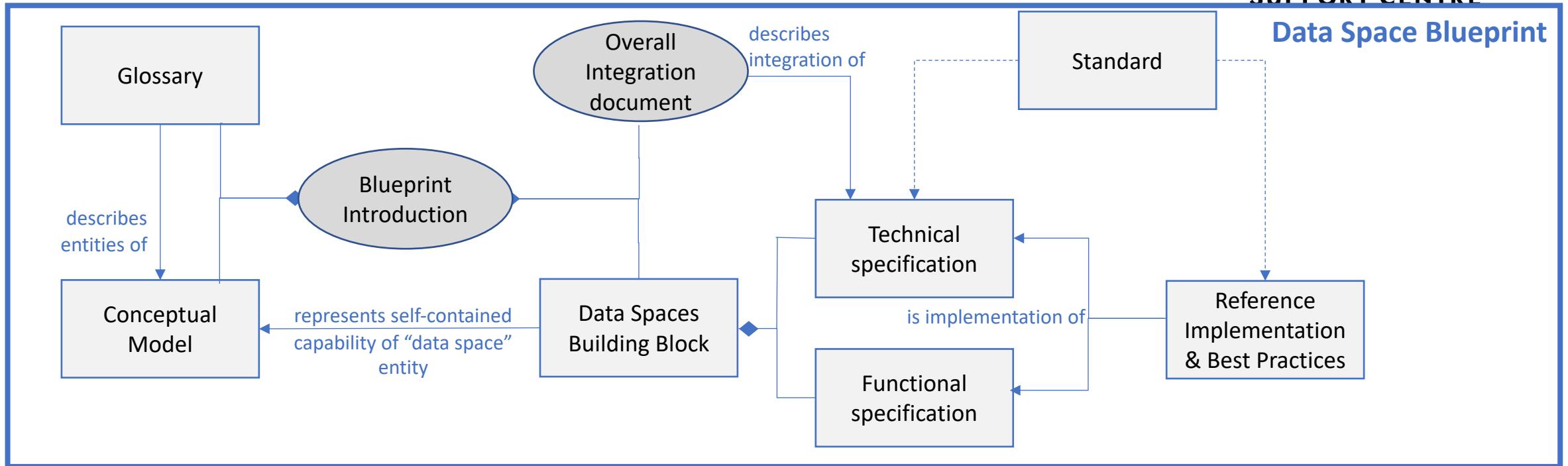
- Not to be confused with building blocks, but very relevant for implementing data spaces.
- **Data Space Connectors**
e.g. discussion on Data Space Protocol links to many building blocks
- **Data Space Registry**
- **Federated Services**





DATA SPACES
SUPPORT CENTRE

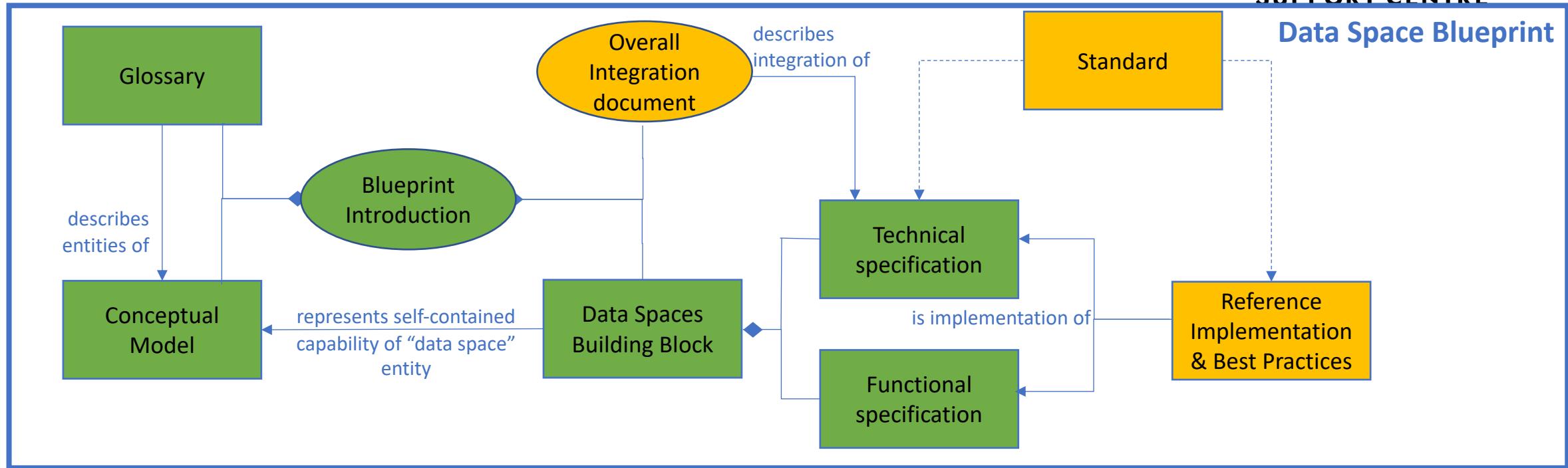
Data Spaces Blueprint Structure





DATA SPACES
SUPPORT CENTRE

Data Spaces Blueprint Structure



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

Follow the DSSC on [LinkedIn](#) to receive latest updates on the DSSC Insight Series. Slides available [here](#).



You missed a webinar?
Follow this [link](#).