



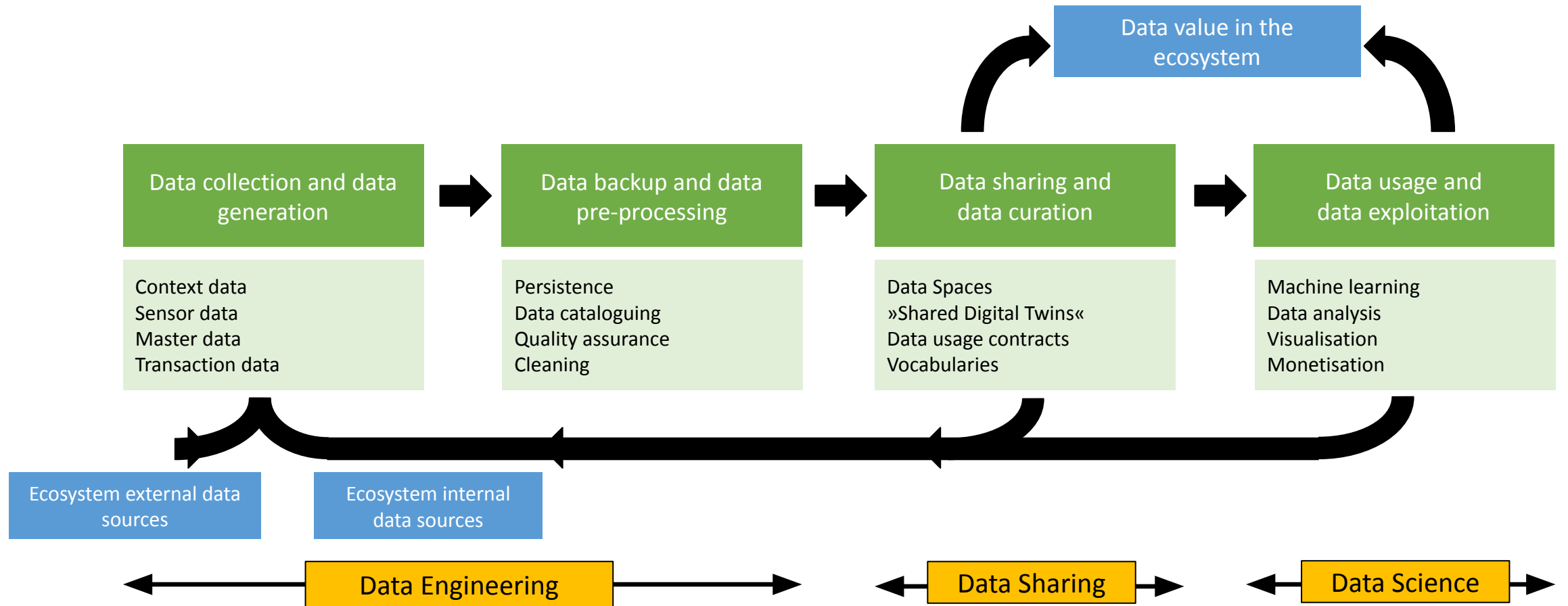
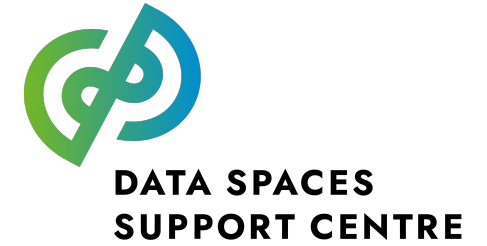
DATA SPACES  
SUPPORT CENTRE

# The value of Data Spaces EOSC Symposium – Data Spaces workshop

Clara Pezuela (FIWARE Foundation)

Madrid, 22 September 2023

# Data Sharing Value Chain



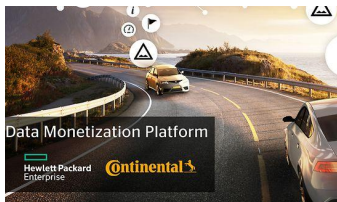
Source: adopted from OECD (2020).

# The Role of Data



## Data as an Economic Resource

- In the platform economy, data is a strategic resource
- Data sovereignty and the fair use of data are key aspects of data strategies on both the EU and member states level
- Digital infrastructures are required



## Data Monetization in Business Ecosystems

- Ecosystems are a new multilateral form of organizing for customer innovation
- Data is the strategic resource for ecosystem services
- Data providers can generate income and business benefits from providing data



## Data as an Enabler of Digital Business Models

- Digital business models require combination of own data (products, installed base), business partner data (customer data) and context data
- Digital business models support end-to-end customer processes



## Data as a Source for Business Optimization

- Data sharing and exchange fosters optimization of value creation processes and networks
- Digital twin management across the end-to-end supply chain
- Integration of digital factory and smart manufacturing/digital supply chain concepts

Image sources: [it-daily.net](https://www.it-daily.net) (2020); [continental.com](https://www.continental.com) (2020); [uni-bremen.de](https://www.uni-bremen.de) (2020); [swisscom.ch](https://www.swisscom.ch) (2020).

# Role of Data Spaces

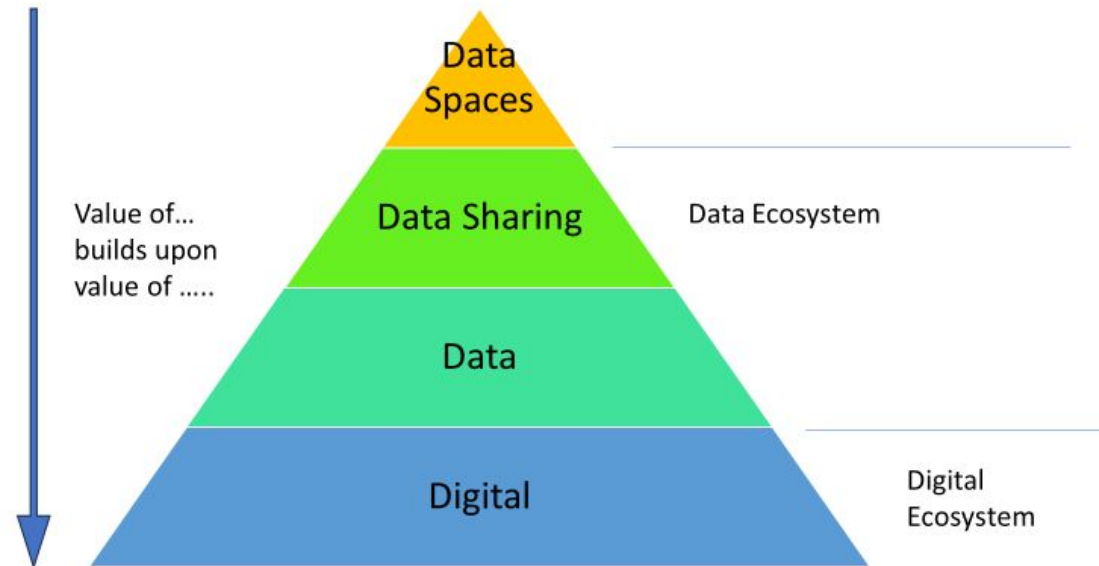
- Integrating the data value chain in ecosystems
- Support and facilitate data sharing
- Ensuring trust and data sovereignty
- Improving data quality when sharing data
- Leveraging the value of data
- ...



Image Source: Fraunhofer (2023).

# Context of data spaces

- The value of data spaces relies on the value of data sharing and therefore on the value of data
- Data Spaces operate in digital ecosystems and inherit some of their characteristics
- Data Spaces were introduced in the European Data Strategy to support the idea of “single market of data”



# Data Space concept

*A distributed system defined by a governance framework, that enables trustworthy data transactions between participants while supporting trust and data sovereignty (DSSC Glossary)*

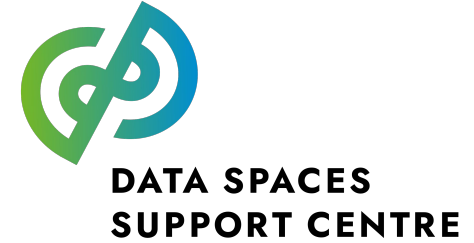
## What is?

- Several infrastructures supporting one or more use cases:
  - Distributed structure
  - Governance framework
  - Enabling trusted data transactions
  - Enabling data sovereignty

## What is not?

- A data lake
- Only a data platform
- Only a digital ecosystem

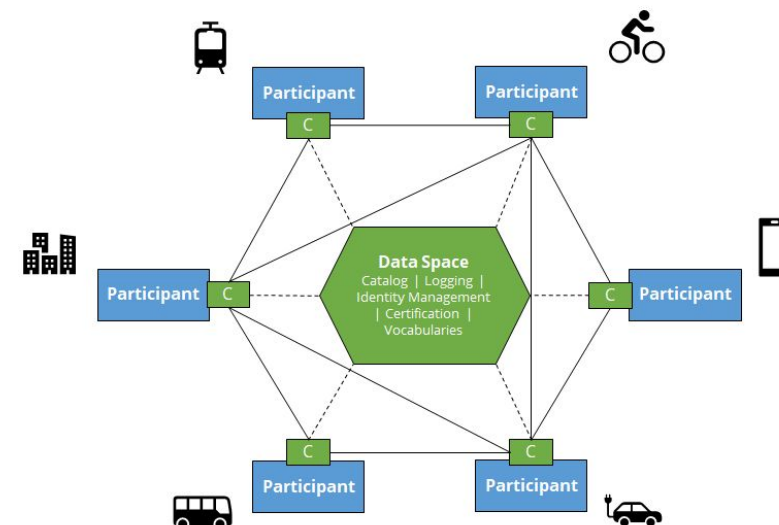
# Others are sharing data but...why data spaces?



- Remove barriers in data sharing (interoperability, trust, sovereignty...)
- Minimize the risk of data sharing (security, costs...)
- Offer additional incentives for data sharing (reduce costs, access to more data...)
- Operate with different types of data (cross-domain data sharing...)
- Involve a large variety of participants (directly or through intermediaries)
- Federate with other data spaces
- Adhere to EU rules and values

# Value of data spaces

- Public and private sector share data for a greater common, societal goal
- Ecosystem members share data to cope with a shared requirement (compliance, process efficiency, transparency) - cost sharing
- Ecosystem members team up to provide quality-assured, easy access to data of a domain of common interest (open data, business partner data etc.) - marketplace
- Ecosystem members team up to prevent monopolies from emerging - joining forces





# DSSC mission



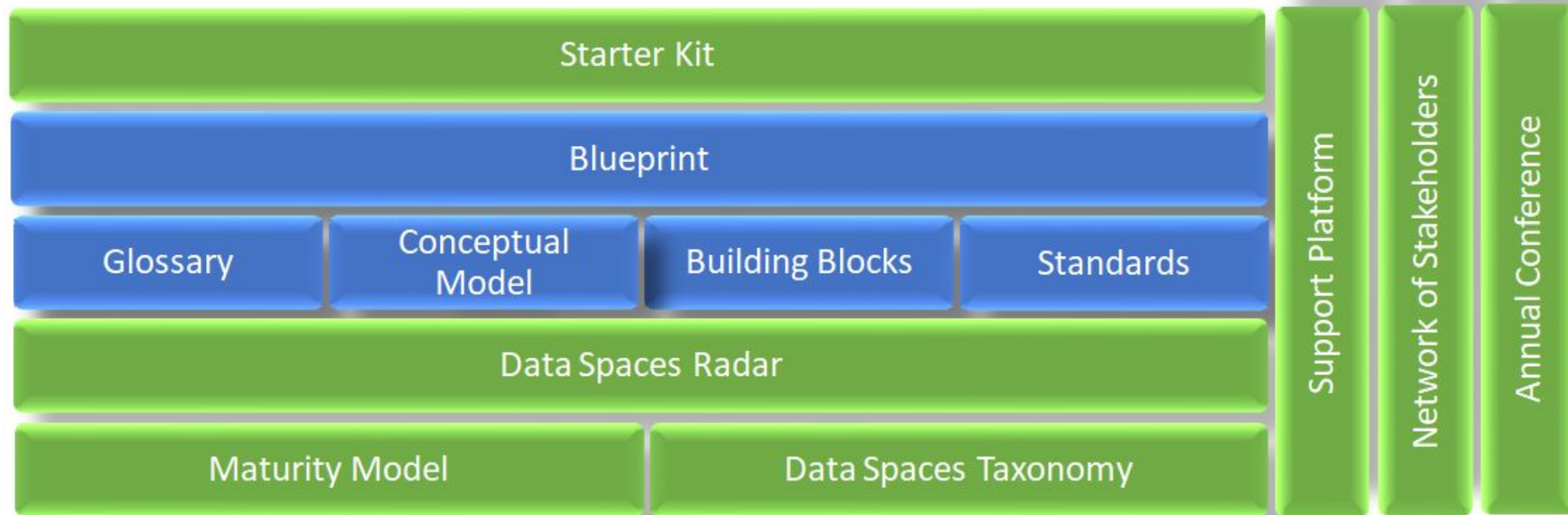
DATA SPACES  
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- Enable data spaces to reach a higher flight level faster: a **quick start** and an **accelerated scale-up**
- Provide the tools to address the **basic organizational and technical matters**, required by every data space
- This includes a **blueprint**, best practices, common standards and reference implementations which will be developed according to a **co-creation process**
- Enable dataspaces to focus on their domain-specific business challenges and **provide business benefits to their participants**



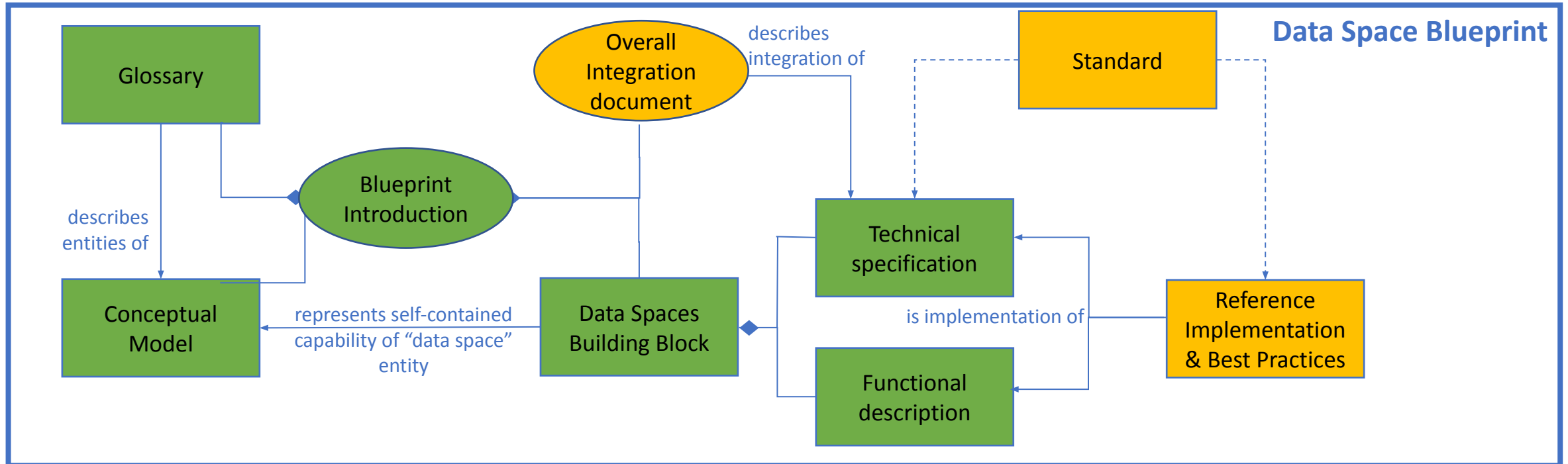
The Data Spaces Support Centre receives funding from the European Union Digital Europe Programme under grant agreement n° 101083412

# DSSC assets



DELIVERY PLAN

# Data Spaces Blueprint Structure



V0.5 – Publication: September 2023

V1.0 – Publication: April 2024

# Two categories of Building Blocks

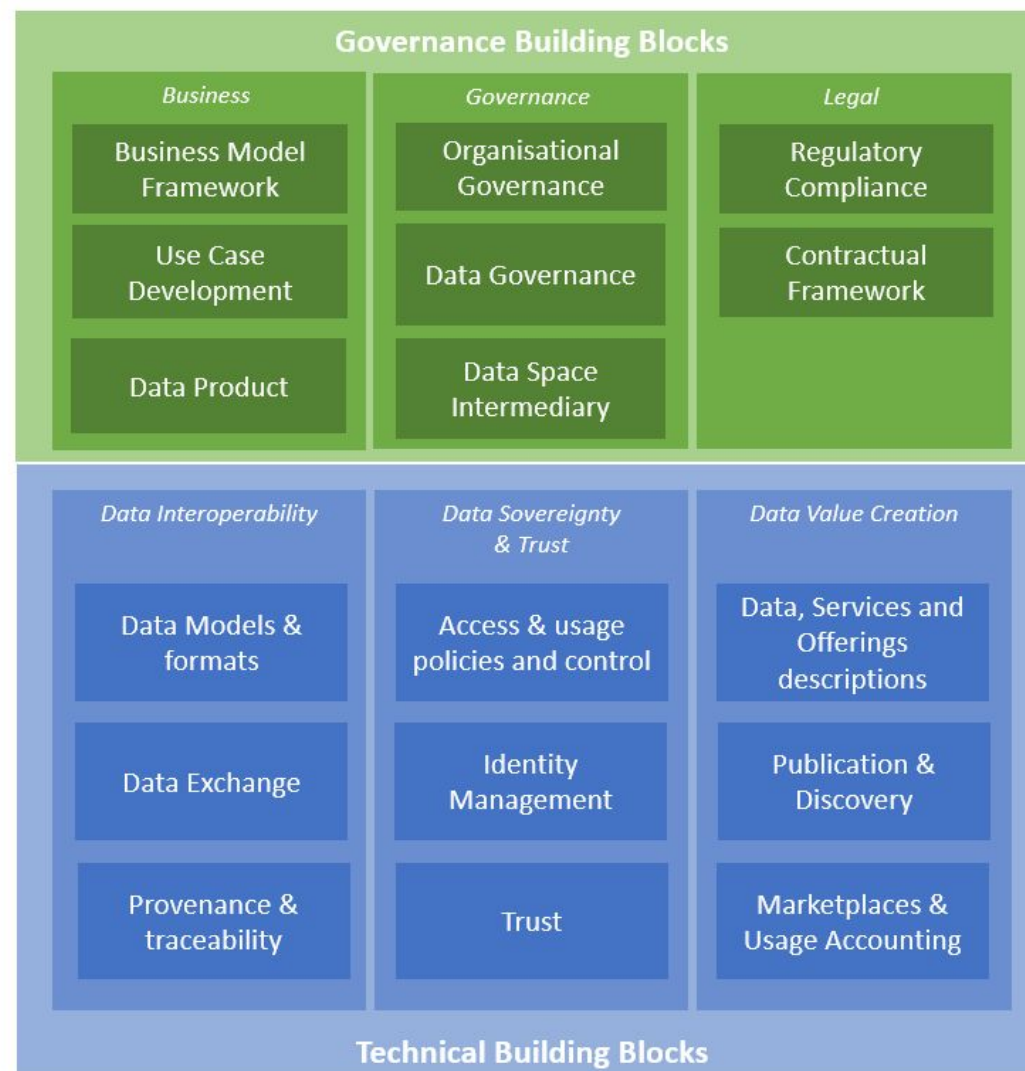
## 1. Governance building blocks

These describe capabilities needed on a business level.

## 2. Technical Building Blocks

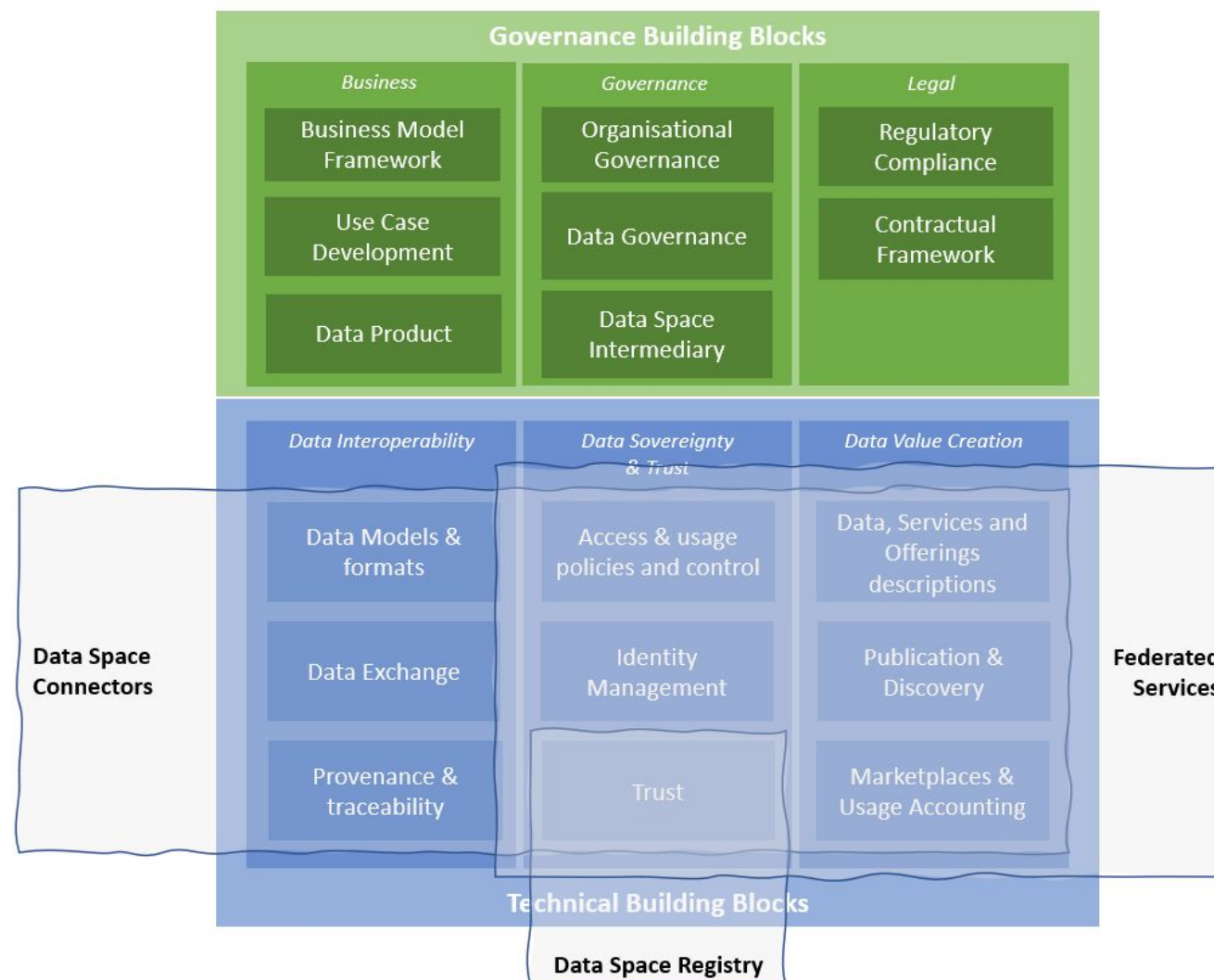
These describe capabilities needed on a technical level.

*Data Interoperability*  
*Data Sovereignty & Trust*  
*Data Value Creation*



# Services to implement (technical) capabilities

- Not to be confused with building blocks, but very relevant for implementing data spaces.
- **Data Space Connectors**
- **Data Space Registry**
- **Federated Services**



# On the Nature of Building Blocks

## Analogy from the Tangible World



## Interpretation/Examples

Concept Types	House	Data Space
Building Blocks	Windows Roof Walls Heating	Data exchange Usage control Identity management Publication & Discovery....
Roles	Owner Tenant Waterworks	DS authority DS participant App provider...
Tools	Water-level Crane Brick trowel	Legal compass Pilot procedures Use case design...
Context	Laws of physics Building regulations	DGA, DA Platform economics....

# Summary



- Demand on data sharing to address business and societal challenges
- Data Spaces as instruments to facilitate the data sharing
- Bringing an extra value to the existing ways of data sharing
- Different business models to create value out of data
- DSSC is here to support the understanding and development of data spaces
- Providing a set of assets, including a blueprint

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# How to keep posted

- News and publications at [dssc.eu](https://dssc.eu)
  - [Get support](#)
- Join the Thematic Groups
  - Knowledge base and periodic meetings
  - [Get involved](#)
- Monthly DSSC Insights Series
  - Next one about the Blueprint on 12th October at 16:00
- Data Spaces Symposium in March 2024



# Thanks!

More info at [contact@dssc.eu](mailto:contact@dssc.eu)

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