DATAWEEK

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Data Spaces for eGovernment and Public Administration. Enabling the next generation of Digital Public Services

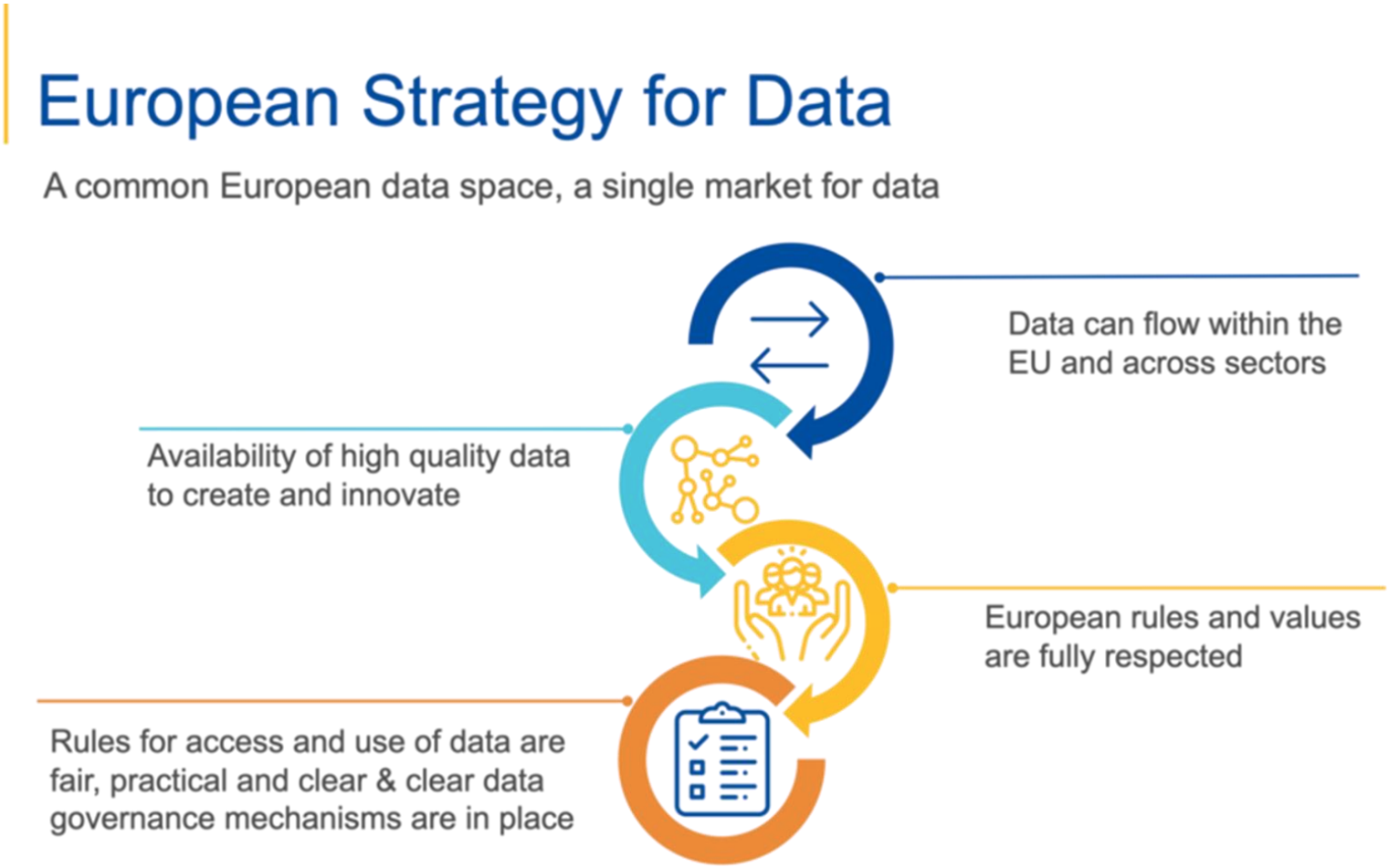
EUHUBS4DATA

BDV BIG DATA VALUE ASSOCIATION

Hello! My name is Aitor Corchero, and I will provide an introduction to DS in public administrations

I am Solutions Specific Knowledge Leader at NTT Data focused on bringing Semantic interoperability to public sector

European Strategy for Data



Some definitions of data spaces

OpenDEI

A data space is defined as a decentralized infrastructure for trustworthy data sharing and exchange in data ecosystems based on common agreed principles. Data spaces require the following elements:
» building blocks such as *data platforms*,
» building blocks such as *data marketplaces*,
» building blocks ensuring *data sovereignty*

Gaia-X

The term ‘data space’ refers to a type of data relationship between trusted partners who adhere to the same high-level standards and guidelines in relation to data storage and sharing within one or many Vertical Ecosystems. Data sovereignty and trust are essential for data spaces to work and support relationships between participants.

IDSA

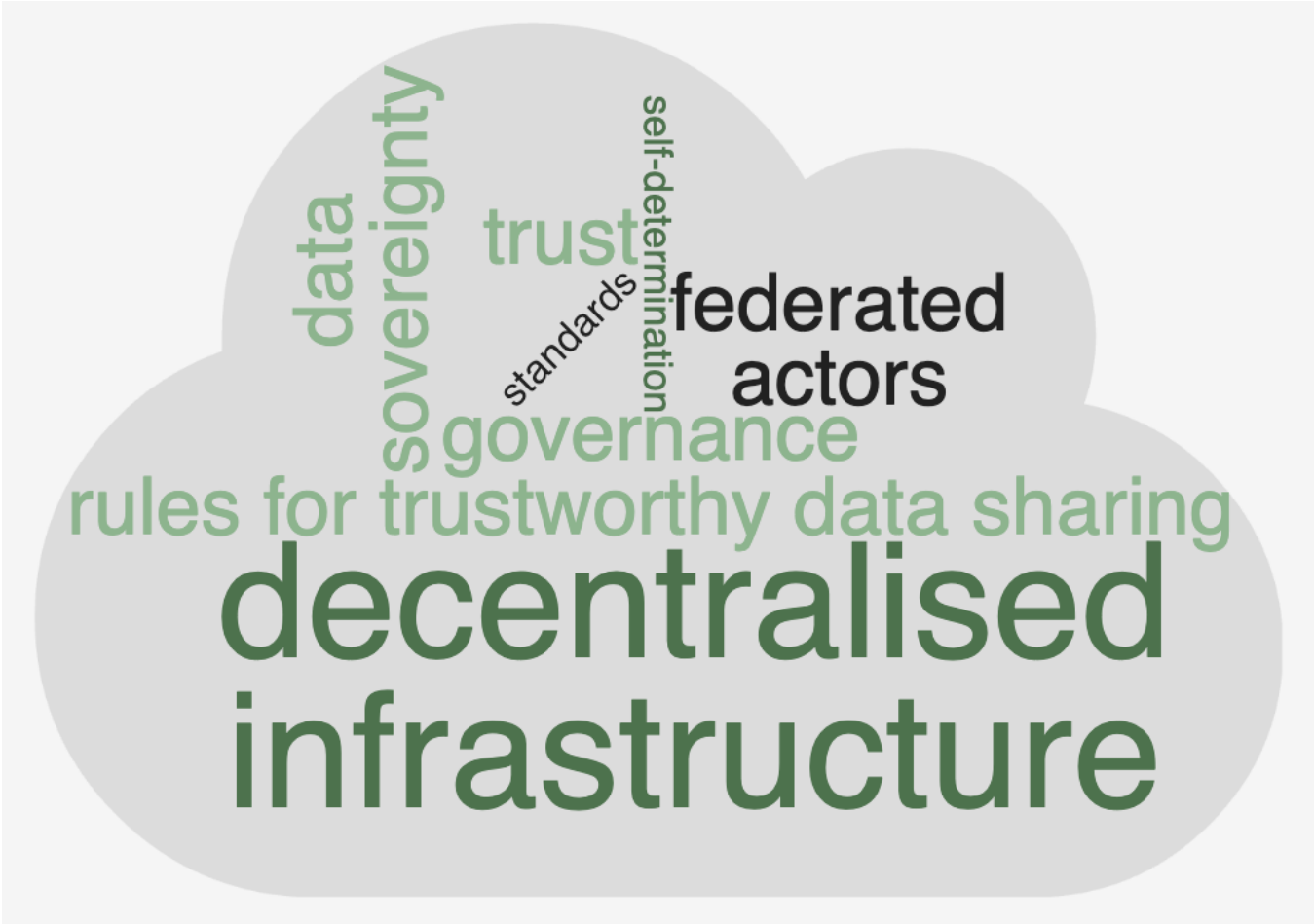
Relies on the definitions of OpenDEI and Gaia-X but focuses on the Sovereignty of the Data as the ultimate role of a data space: “Data sovereignty is a central aspect of the International Data Spaces. It can be defined as a natural person's or corporate entity's capability of being entirely self-determined with regard to its data.”

SiMPL

An open ecosystem of distributed, federated actors taht share data, applications, and infrastructure amongst each other.

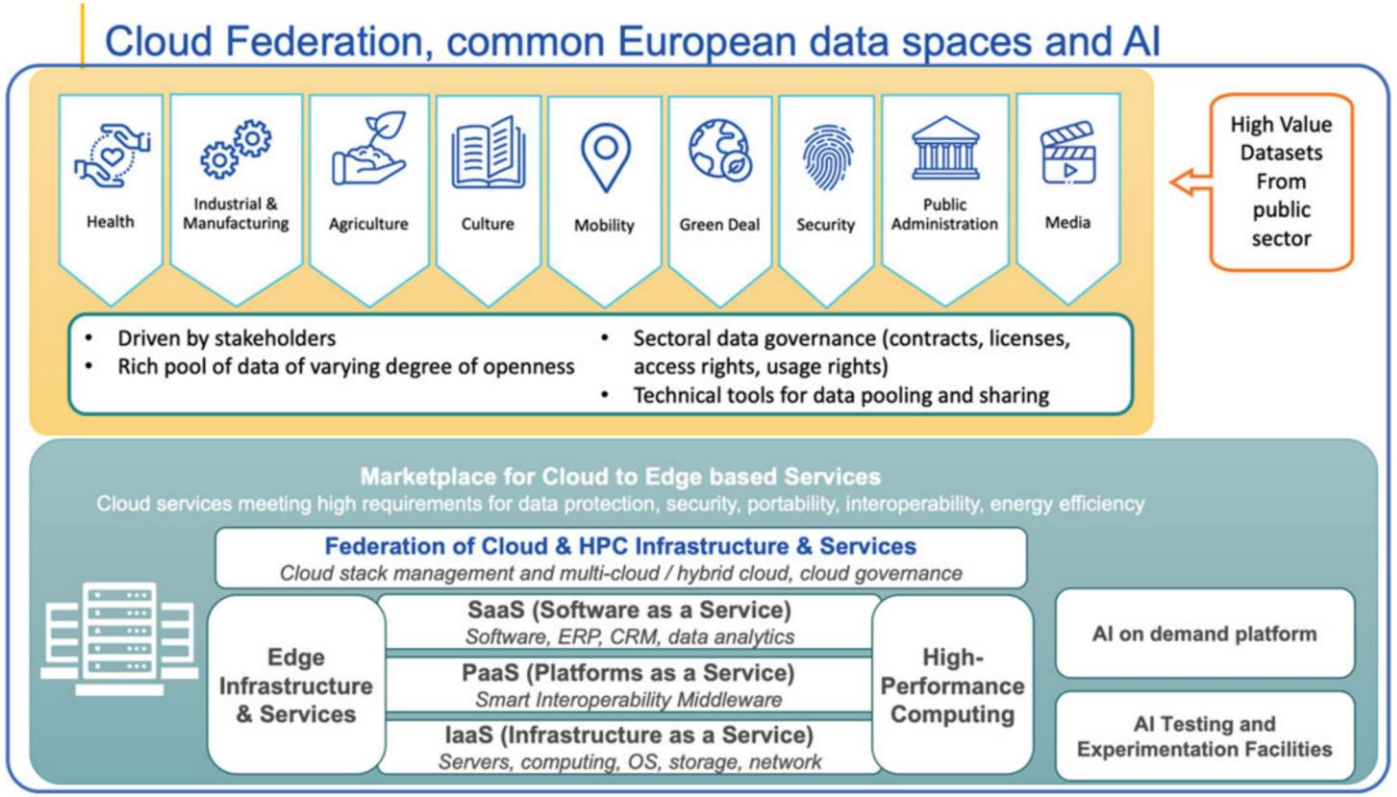
An ecosystem of trusted partners, each of whom apply the same standards and rules to the storage and sharing of their data.

Some key concepts

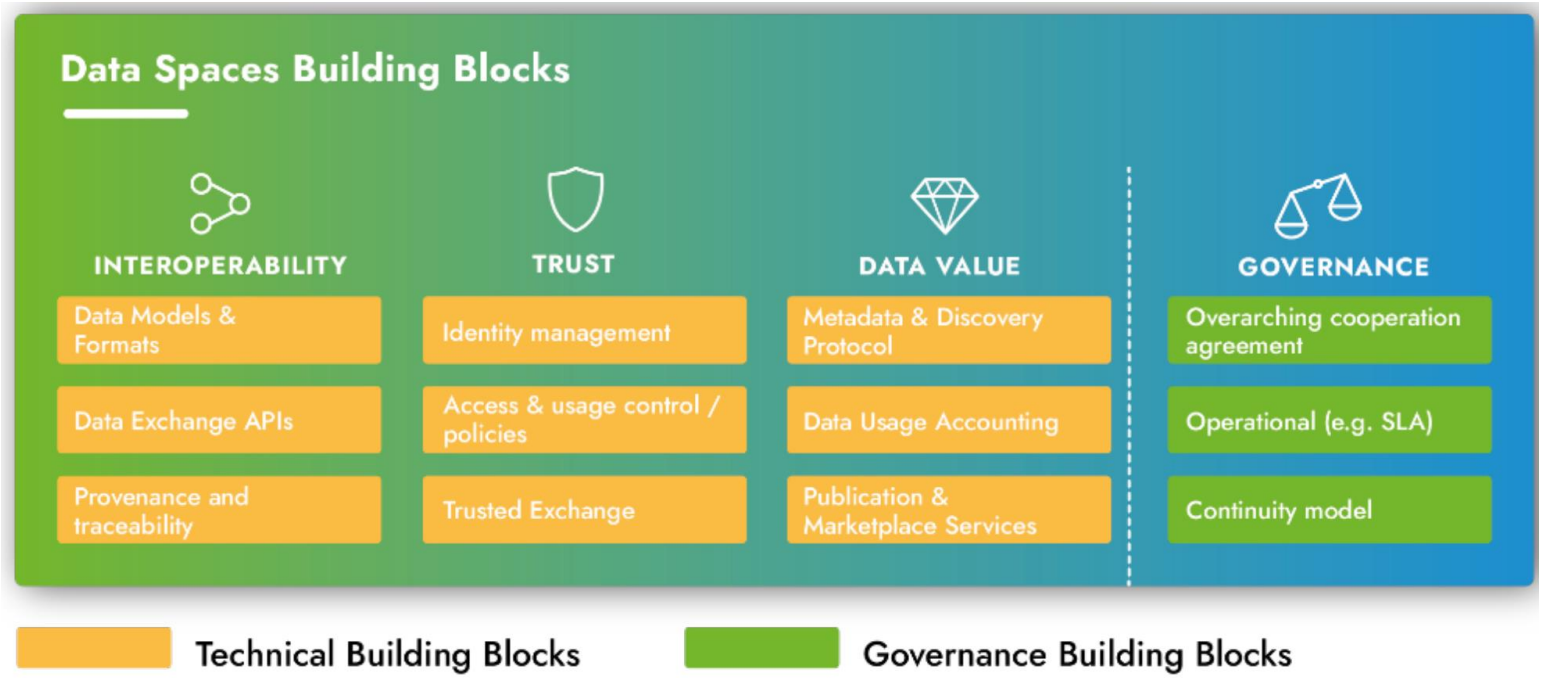


EU Mission towards data spaces

Data Spaces are currently focused on how unleash and [fairly and ethically] leverage the socio-economic power of the data held by private sector companies and public administrations.

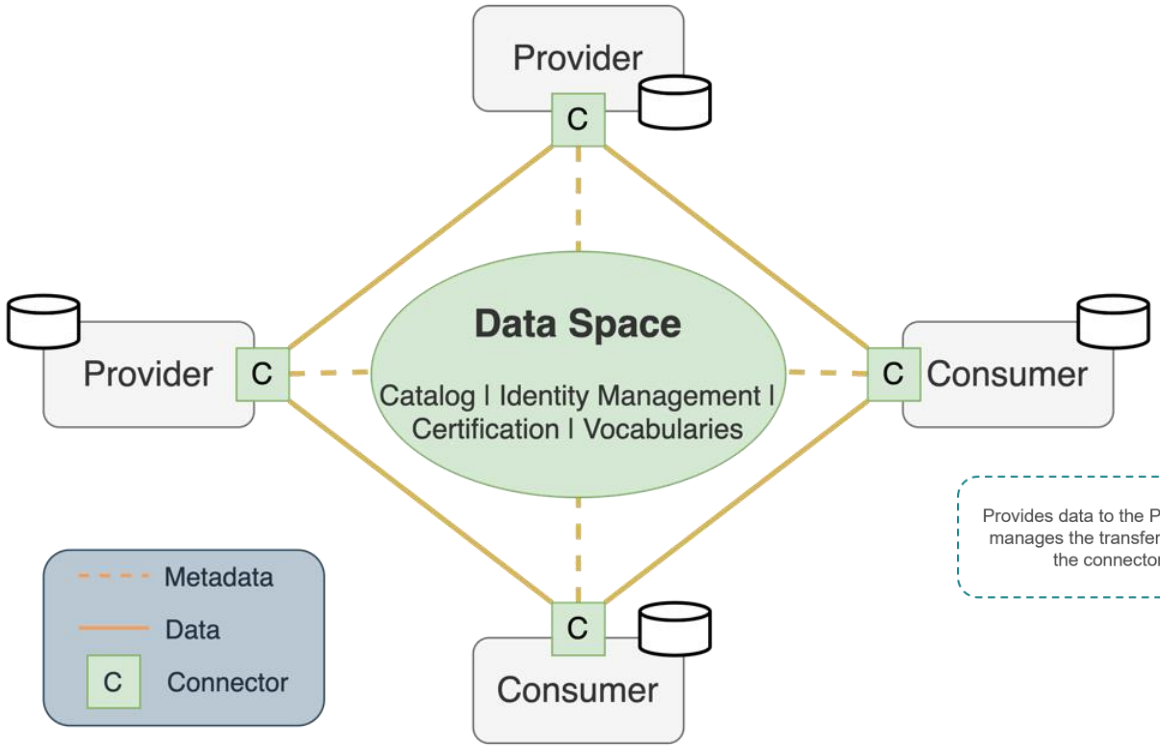


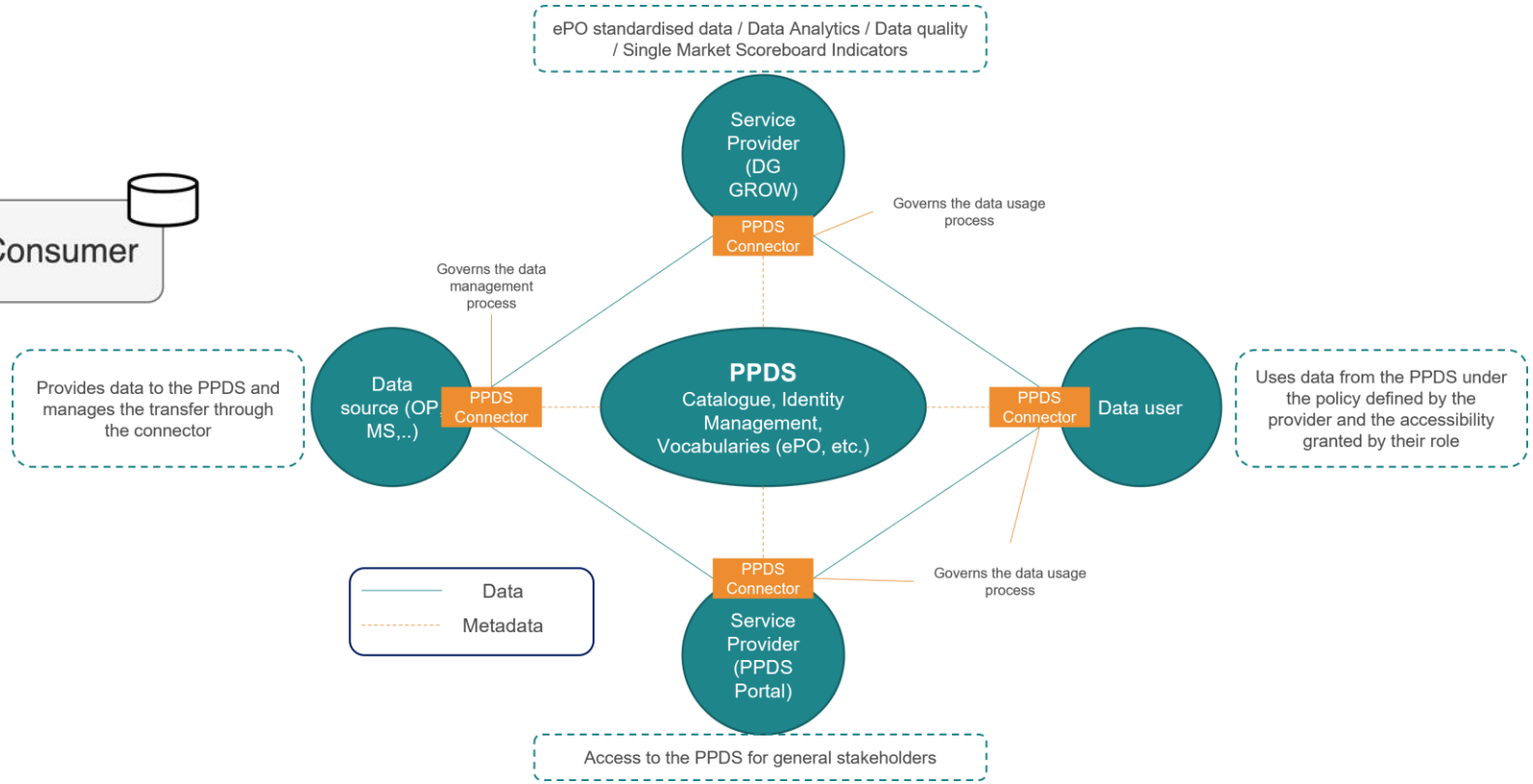
Main building blocks



Source: Data Space Support Center (DSS) "Starter Kit for Data Space Designers"

Data Spaces in a nutshell



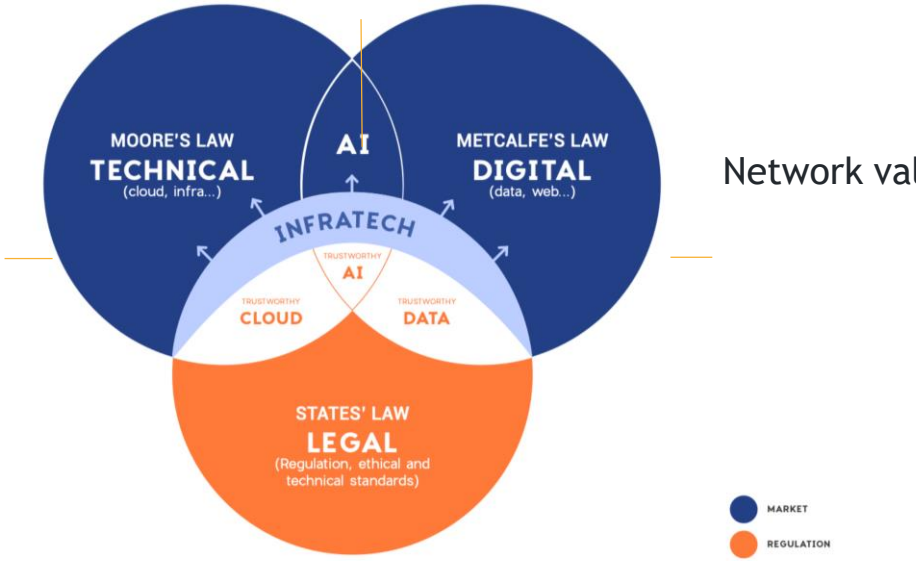


Data Spaces in a nutshell

The ultimate goal in Data Spaces is achieving the maximum degree of [automated/assisted] Digital Sovereignty (IDSA)

Automated governance increase rate

Computational power increase rate



Network value increase rate

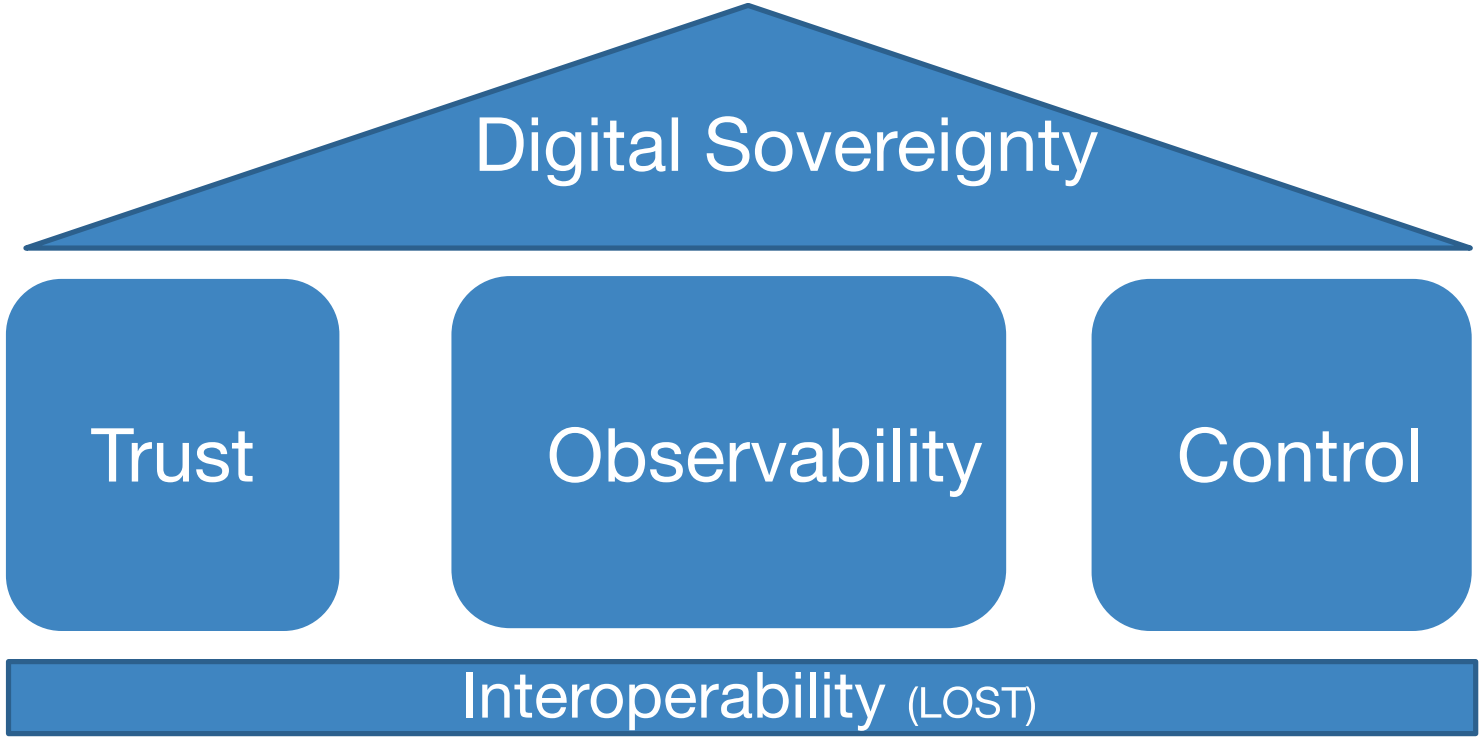
Trust enforcement rate

ECOSYSTEM OF TRUST (CLOUD + DATA + AI) = STRATEGIC AUTONOMY

Source: Trustworthy data sharing, key to our strategic autonomy

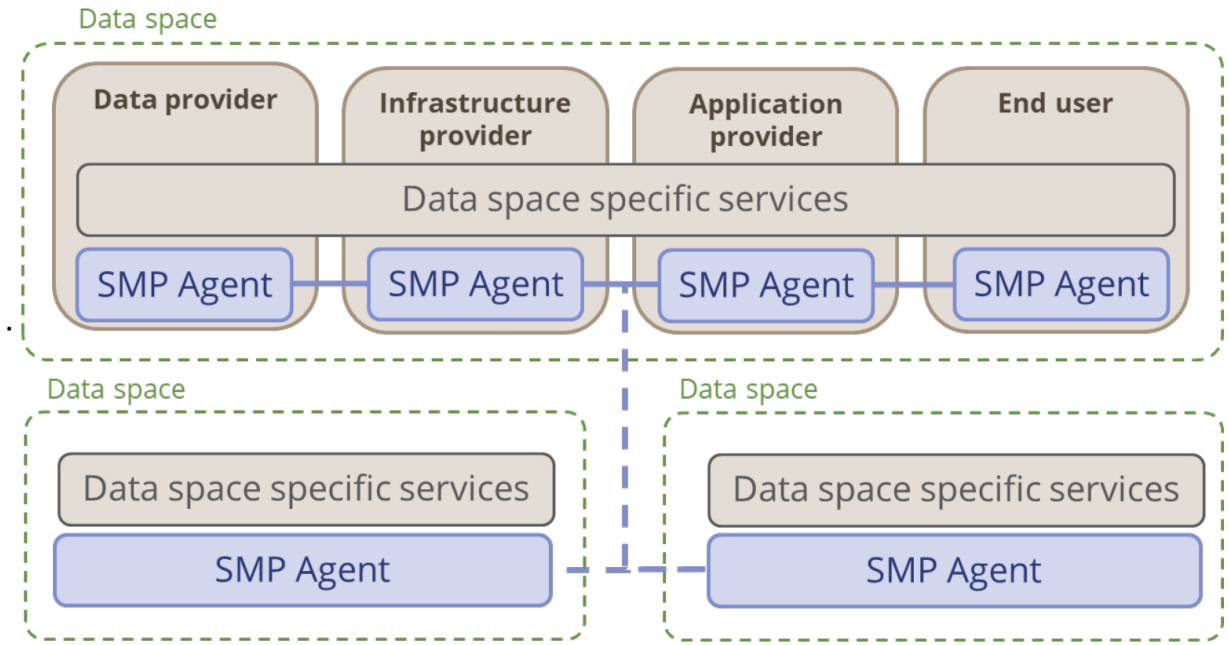
Our Vision of Data Spaces

A EU Federation of Public Administrations Data Spaces, focused on the objectives and functions assigned to Public Administrations (public policy and laws definition, implementation and enforcement).



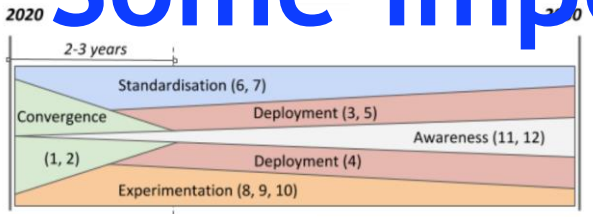
SIMPL As a Reference Architecture

SiMPL (or SMP, Smart Middleware Platform) will provide common services on which data spaces can be built. The middleware stays agnostic to the specifics of a particular data space, allowing additional data space specific services to be added on top of the Smart Middleware.



Source: Preparatory work in view of the procurement of an open source cloud-to-edge middleware platform. Architecture Vision Document

Some important deadlines



Towards a European-Governed Data Sharing Space 2020: Suggested timeframe for implementing the recommended actions over the next decade (x-axis) (Source: BDVA, 2020)

European Commission | **Personal Data Spaces**

SOLID MyData

2021 2026 ..

Experts & JRC to: Understand the policy and business challenges for **adoption of Personal Data Spaces**; Ensure **interoperability between Personal Data Space technologies**; Co-create a roadmap for the coming 5 years.

European Commission | **PPDS**

Aug. 2023 Dec. 2024 .2030

An integrated space for **public procurement** data above and below the EU thresholds, combined with an analytics toolset using emerging technologies that will benefit public buyers, policy-makers at the EU and national levels, companies, researchers, and taxpayers alike.

European Commission | **SiMPL**

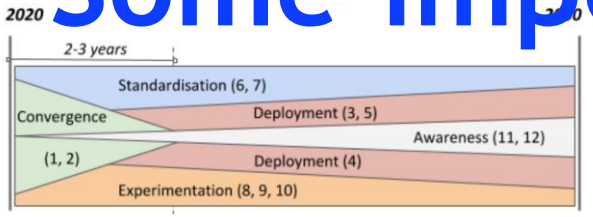
SiMPL is the **smart middleware** that will enable cloud-to-edge federations and support all major data initiatives funded by the European Commission, such as common European data spaces.

European Commission | **OOTS**

2022 2023 ..

Once-Only Technical System (SDG, Single Digital Gateway). The OOTS is the first EU-wide cross-sectorial and cross-domain Data Space for secure government-to-government data exchange.

Some important deadlines



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Key Messages

1. **New paradigm**: Data Spaces for Public Administration to perform their objectives & functions: public policy and laws definition, implementation and enforcement

2. **Digital Transformation**: Digital Public Services will be Data Space-enabled and new solutions Data Space-oriented

3. **Data [Event] Streaming:** linked replication, history and traceability of data and models, retention policies (e.g., LDES).

4. **Data Sharing:** Privacy-Enhancing Technologies (PETS & SMPC)

5. **Data Exchange:** Standard interoperability protocol (e.g., IDSA's) on top of *ad hoc* protocol (e.g., eDelivery)

THE DATA IS OUT THERE

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Thank you!

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