Companies Want to Link Data

Data ecosystems must preserve data sovereignty

**Interoperability
Data Exchange
"Sharing Economy"
Data Centric Services**

Data Sovereignty

is the ability of a natural or legal person to exclusively and sovereignly decide concerning the usage of data as an economic asset.

**Data Ownership
Data Security
Data Value**

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This is a Data Space

A concept for connecting all kinds of data endpoints
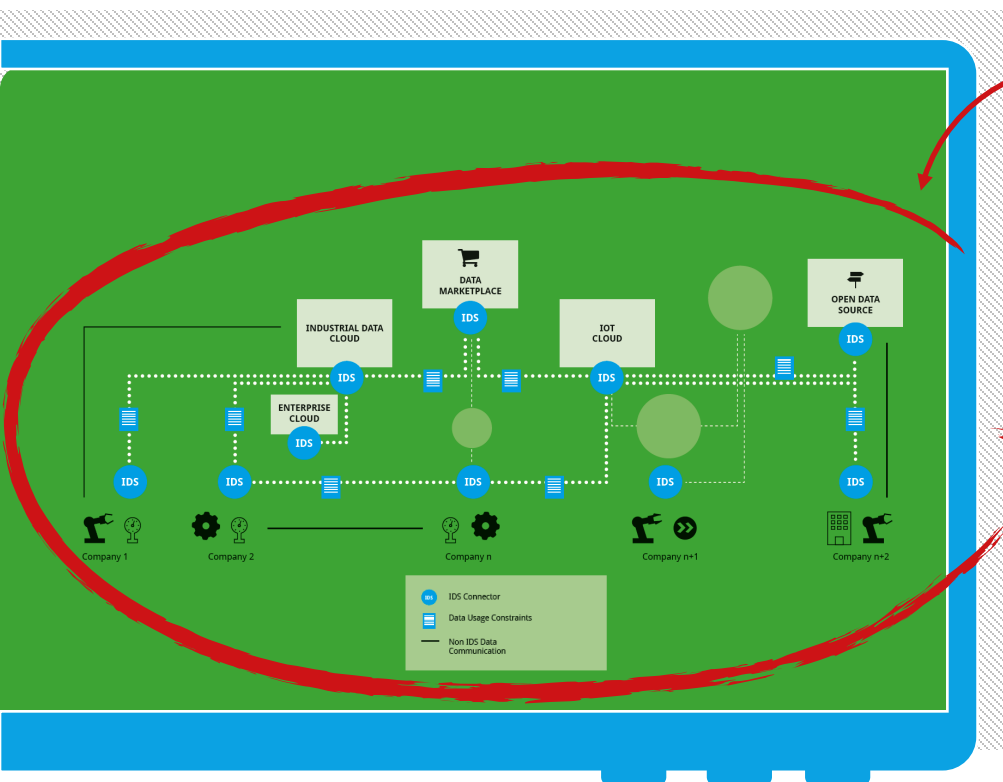
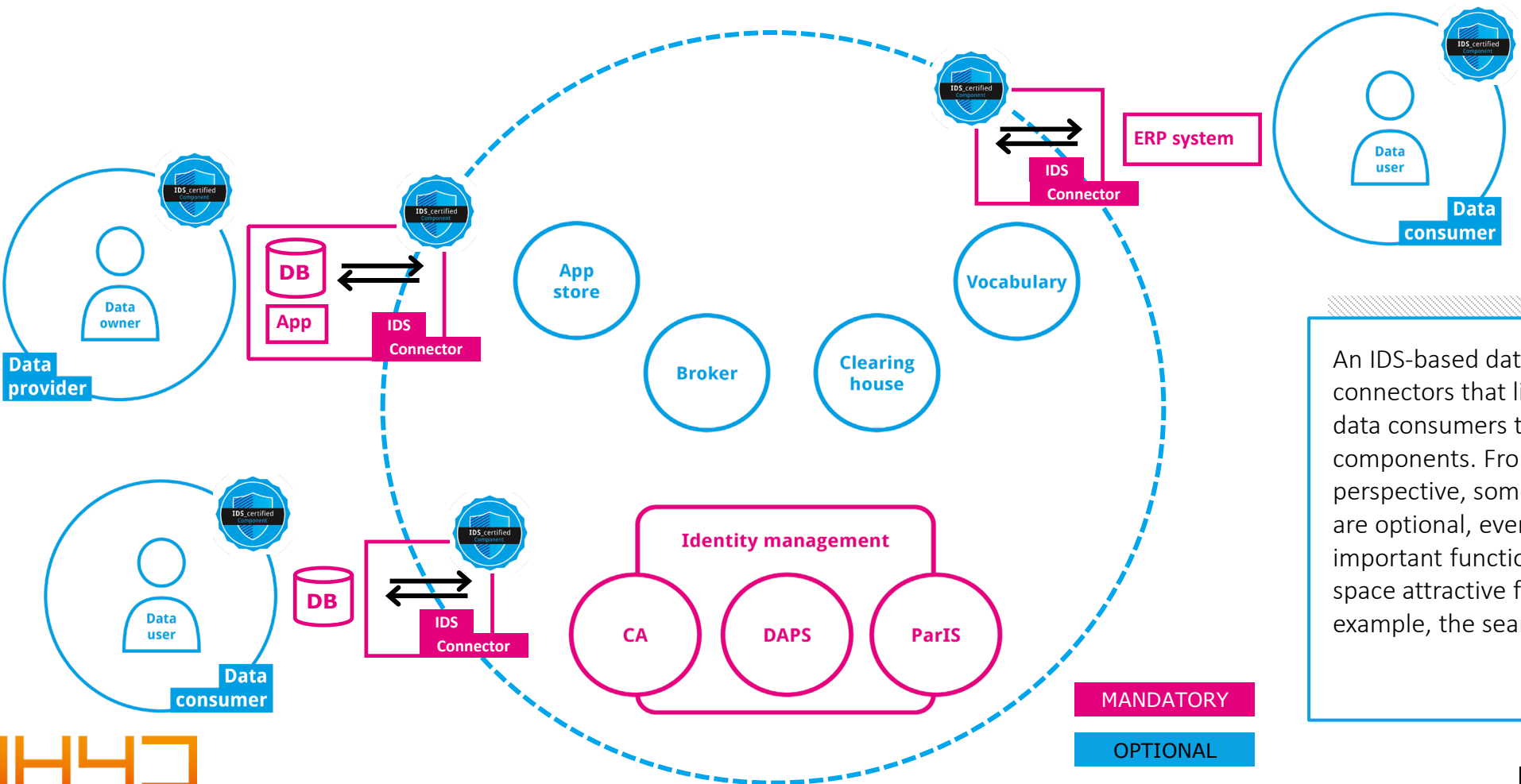A **data space** is the sum of all end points that are able to share data with each other.

» Federated data architecture: no physical data integration, leave data where it is

» Interoperability: no silos, no vendor-dependency

» Data Sovereignty and traceability

» Trusted participants

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IDS-based data spaces
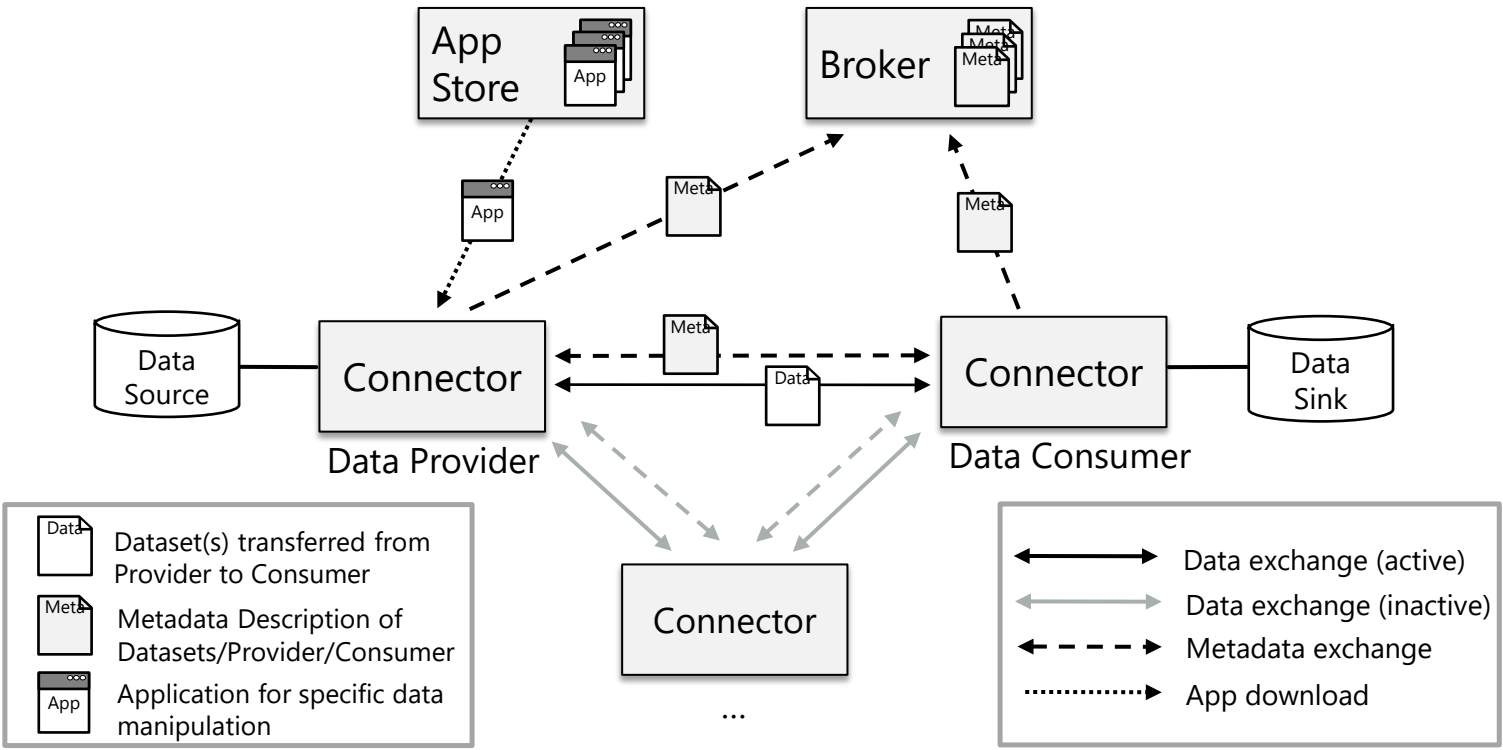
IDS connector is a trust anchor for data exchange

An IDS-based data space consists of connectors that link data providers and data consumers to infrastructure components. From a technical perspective, some of these components are optional, even though they provide important functions which make a data space attractive for its users. This is, for example, the search for data endpoints.

MANDATORY

OPTIONAL

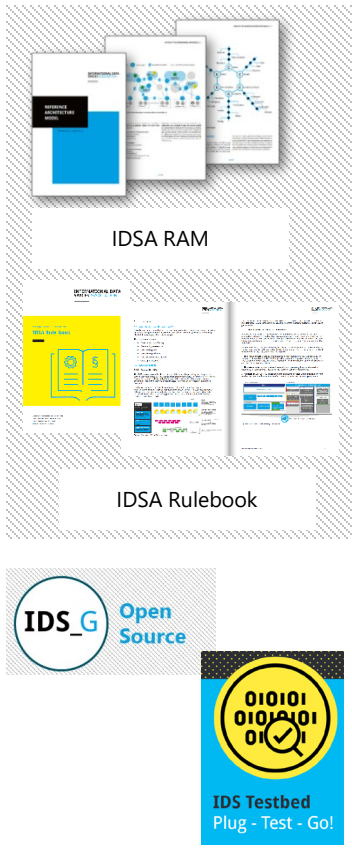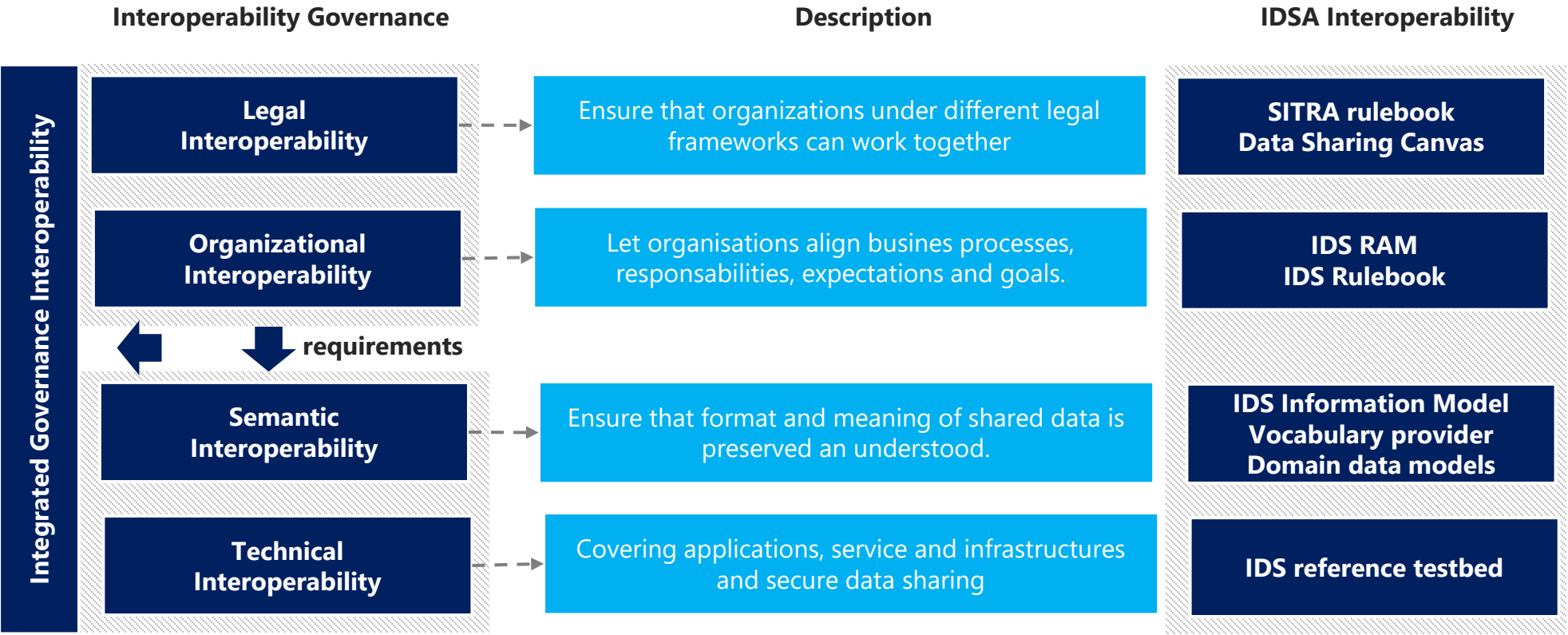*A success story on how to use IDSA connectors for data interoperability*

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IDS Reference Architecture

Interaction of Components

IDS-based data spaces

INTERNATIONAL DATA
SPACES ASSOCIATION

IDS connector is a trust anchor for data exchange

Interoperability Governance	Description	IDSA Interoperability
Legal Interoperability	Ensure that organizations under different legal frameworks can work together	**SITRA rulebook Data Sharing Canvas**
Organizational Interoperability	Let organisations align busines processes, responsabilities, expectations and goals.	**IDS RAM IDS Rulebook**
Semantic Interoperability	Ensure that format and meaning of shared data is preserved an understood.	**IDS Information Model Vocabulary provider Domain data models**
Technical Interoperability	Covering applications, service and infrastructures and secure data sharing	**IDS reference testbed**

Integrated Governance Interoperability

requirements

IDSA RAM

IDSA Rulebook

IDS_G Open Source

IDS Testbed
Plug - Test - Go!

Source: European Interoperability Framework & IDSA

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Information Model
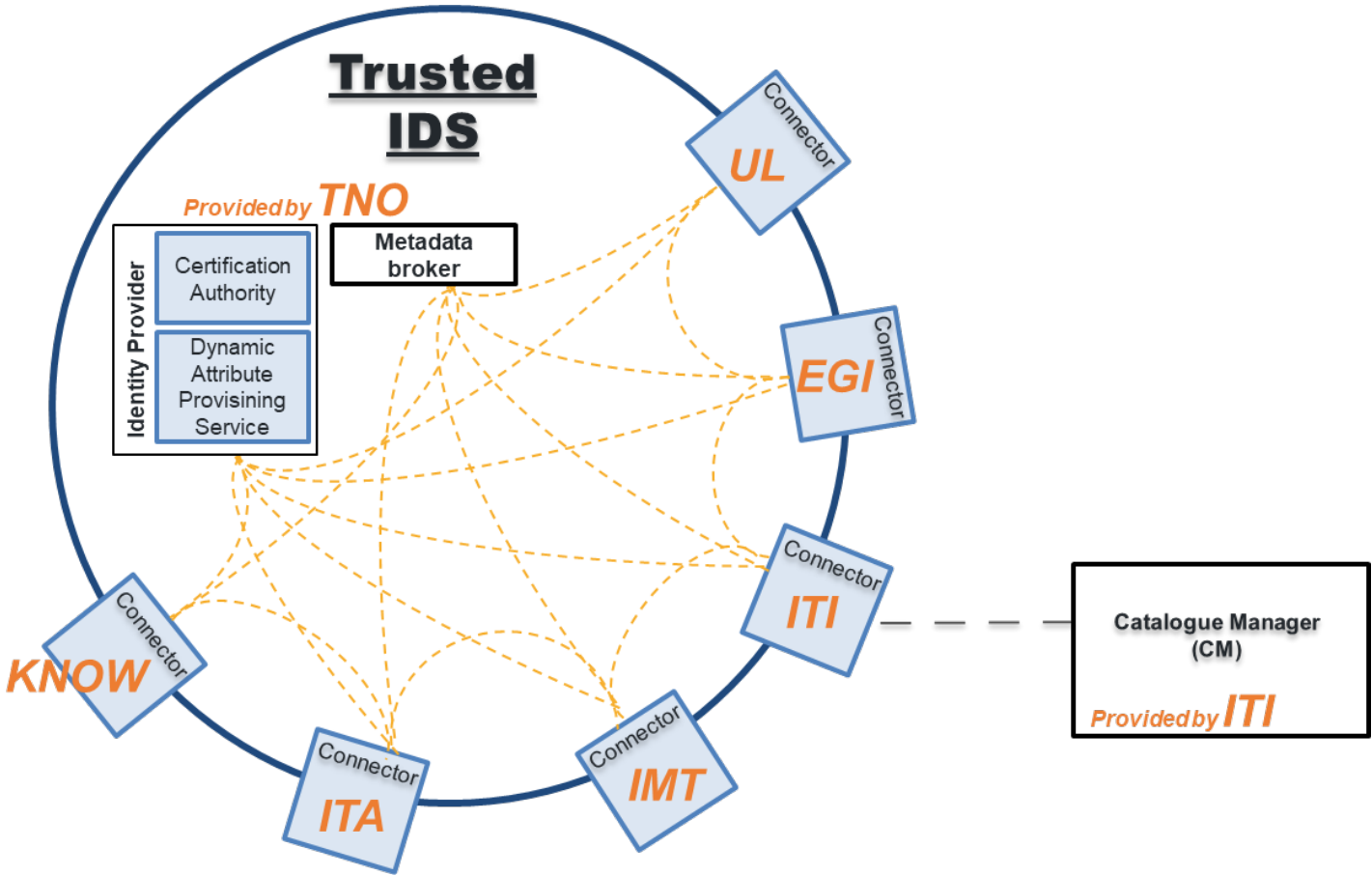
Describing Data Assets
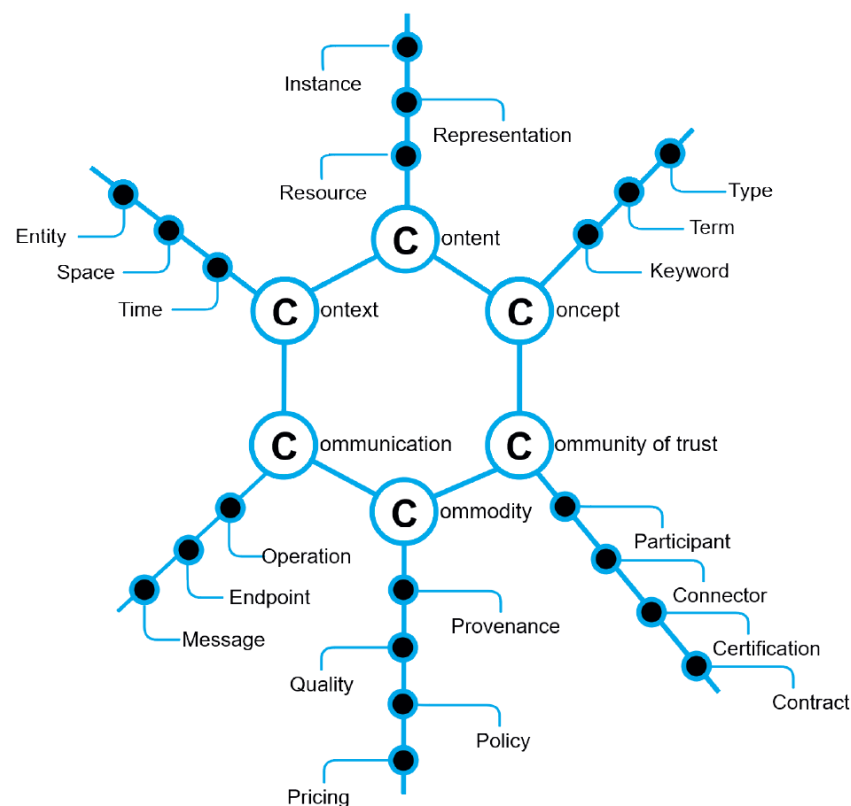
- The essential agreement shared by the participants and components of data ecosystems, facilitatIng compatibility and interoperability

- Three formal levels of digital representation of the information model
  - » Conceptual (generic description in UML)
  - » Declarative (formal, machineinterpretable specification of IDS concept, semantic description)
  - » Programmatic (IDS Information model library in java)

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IDS Reference Architecture

Interaction of Components

EUHubs4Data interoperability

Data sharing between DIH

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ΞUH4Ɔ   DATASETS   SERVICES   TRAININGS   My Assets   Log in

My Assets > Add Asset

Service | Dataset

Title *

Languages *

Keywords *

Service Tier 1 *

Service Tier 2

Conditions

Prerequisites

Service short description *

Service long description *

Potential service combination

Use case example

Additional information

Links

Avaliable for open call

ΞUH4Ɔ   DATASETS   SERVICES   TRAININGS   My Assets   Log in

Filters

Datasets

Sample Dataset 2
Pending of ethical approval

Federated Asset

Population and Society
No license (available on demand)
EU-wide
https://idsaconnector.iti.es:8080/api/offers/c05452a7-00d9-4b2d-9227-9bb4bb2b8da1

IRIS Dataset
Pending of ethical approval

Federated Asset

Environment
No license (available on demand)
EU-wide
https://idsaconnector.iti.es:8080/api/offers/c05452a7-00d9-4b2d-9227-9bb4bb2b8da1

EGI Test
Pending of ethical approval

ΞUH4Ɔ   DATASETS   SERVICES   TRAININGS

My Assets

Filter Panel

Title	Type	Creation Date	Status	Enable	Publish	Visible		
Artificial Intelligence and Data Analysis	Service	10/02/2022	Pending of ethical approval				✏	🗑
Experimentation DataSpaces	Service	09/02/2022	Pending of ethical approval				✏	🗑
Earth Science Research Objects	Dataset	05/02/2022	Pending of ethical approval				✏	🗑
Electric Vehicle Charge Points	Dataset	08/02/2022	Pending of ethical approval				✏	🗑
Ireland Health Data	Dataset	01/02/2022	Pending of ethical approval				✏	🗑
Artificial Intelligence and Data Analysis	Service	10/02/2022	Pending of ethical approval				✏	🗑
Experimentation DataSpaces	Service	09/02/2022	Pending of ethical approval				✏	🗑
Earth Science Research Objects	Dataset	05/02/2022	Pending of ethical approval				✏	🗑
Electric Vehicle Charge Points	Dataset	08/02/2022	Pending of ethical approval				✏	🗑
Ireland Health Data	Dataset	01/02/2022	Pending of ethical approval				✏	🗑

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Data Space Radar

Mapping and monitoring IDS use cases

Domains

Inspiring Success Stories from different domains supported by our experts

Maturity Levels

Covering use cases from **business case generation to real-life data spaces**
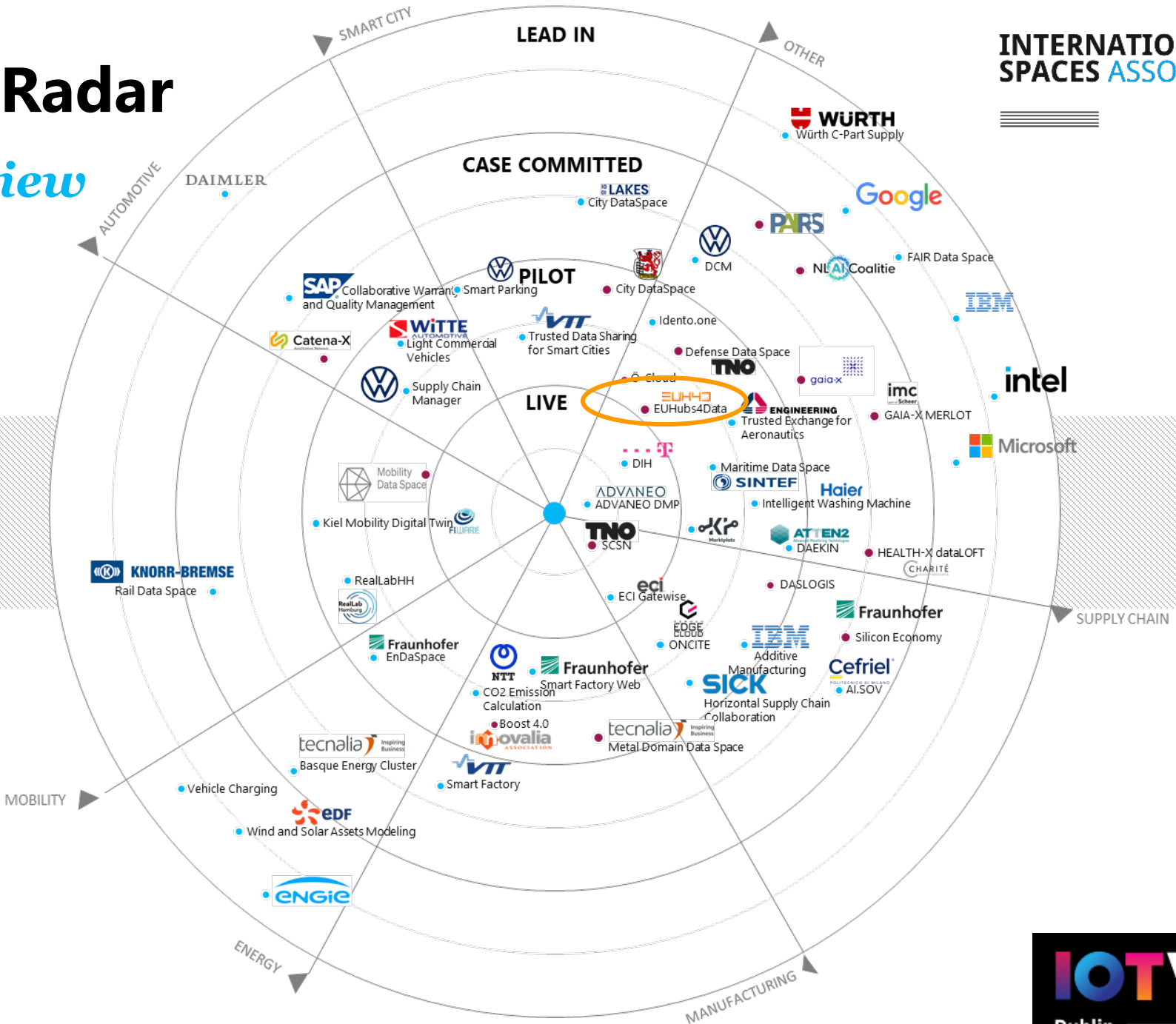
Progress Monitoring

Forward looking radar. We make room for new items and highlight moving data spaces

https://internationaldataspaces.org/adopt/data-space-radar/

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Thank you!

Find more:

www.internationaldataspaces.org

M13 IoT Week exhibition

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iotweek.org