

# IOTWeek

Dublin — June 20-23, 2022

## Enabling Data Exchange in AgriFood

22 June, 13:45 – 15:00

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**GLOBAL VISION:**

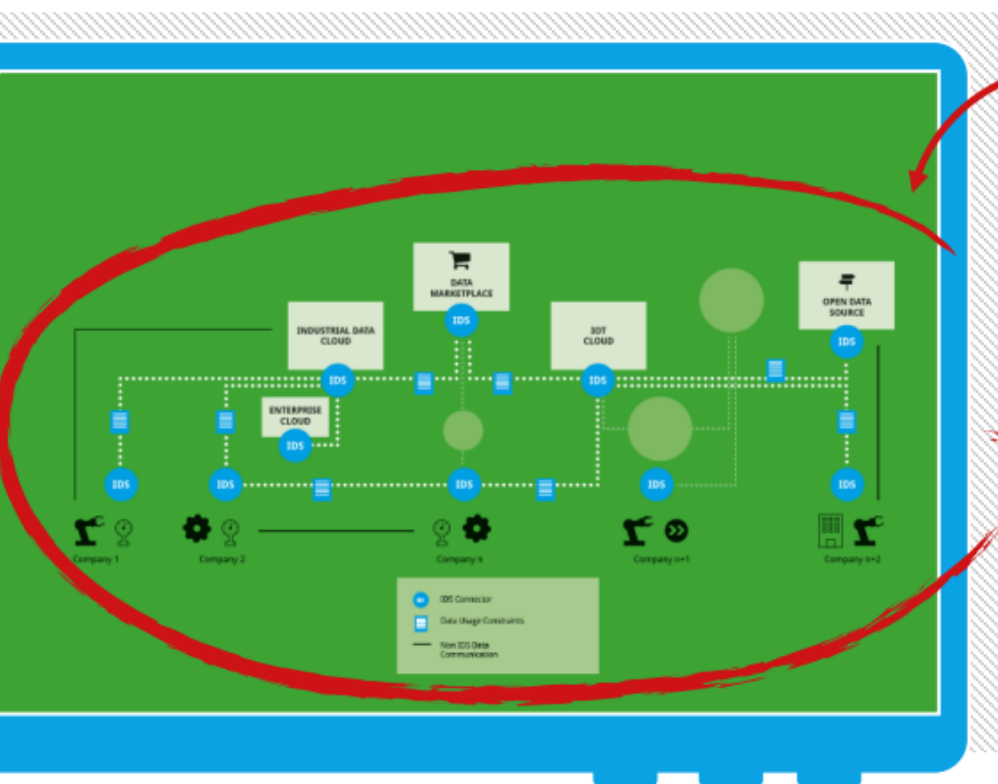
**IoT TODAY AND BEYOND**

IOTForum



# 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

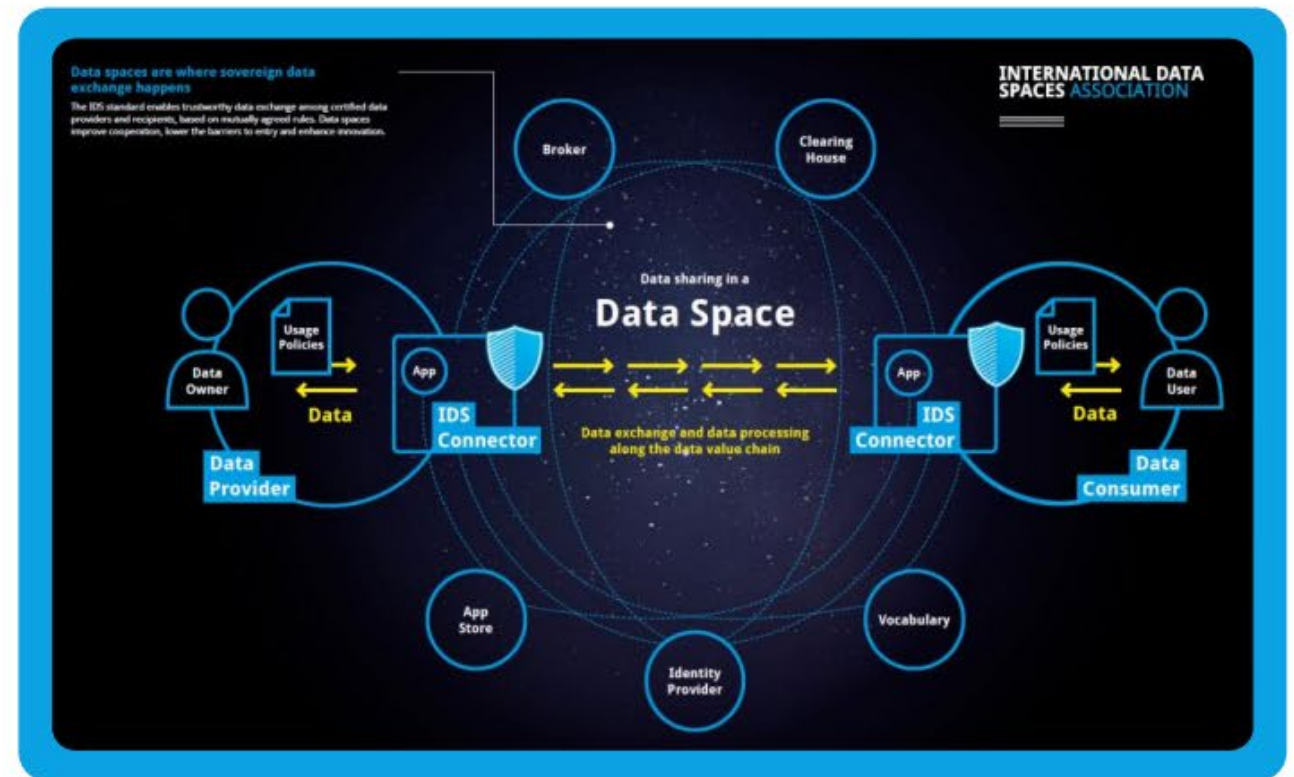
# Data spaces enables data exchange



## *Challenges of the data economy*

### What exactly does “data economy” call for?

- Secure end2end data exchange
- Trusted parties
- Make FAIR principle work
- Monetize data and usage policies
- Data models
- Remote execution
- Usage control and enforcement





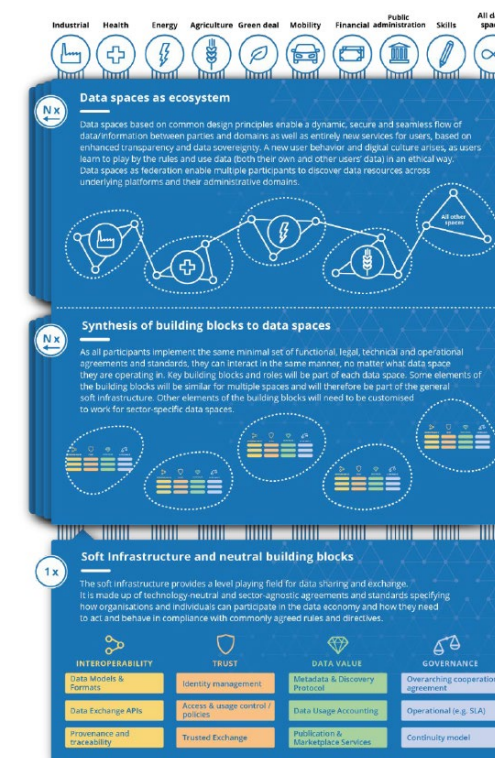
# The design principles propose

*A level playing field for data sharing and exchange build on a distributed soft infrastructure*



Design Principles for Data Spaces are the foundation for data spaces in Europe.

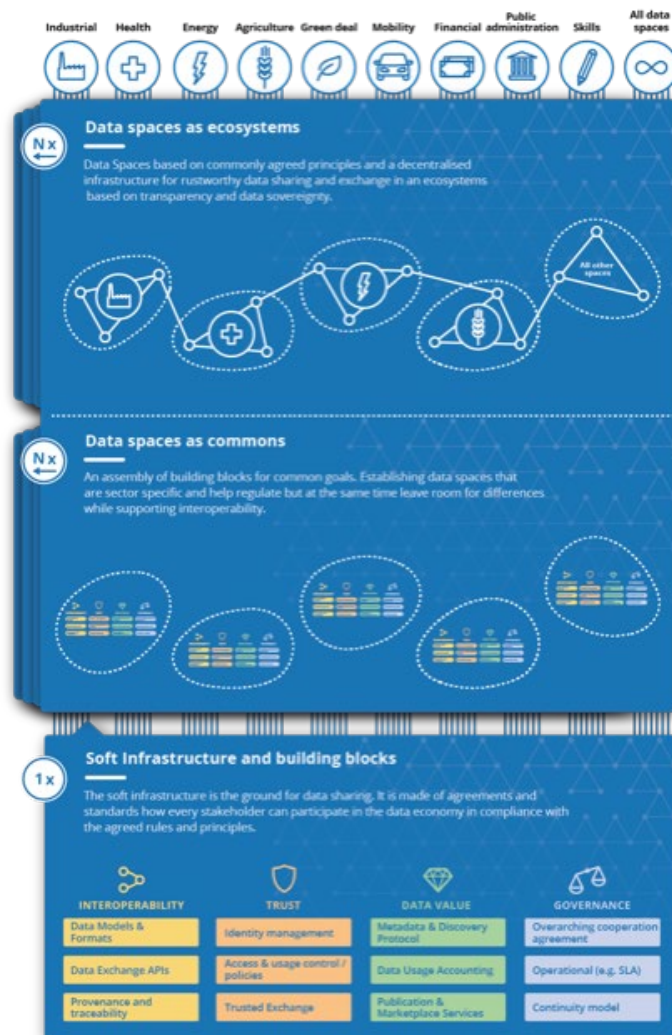
- Facilitate data sovereignty and interoperability
- Ensure mass adoption and scalability
- Sector-agnostic
- Coordinated development combining technological, functional, operational and legal process
- Agreements and standards aligned with building blocks





# Soft infrastructure

*Will enable thousand of data spaces*



- The infrastructure for European data spaces will not be a monolithic, centralised IT infrastructure.
- Instead, it will be made of the totality of interoperable implementations of data spaces complying with a set of agreements in terms of functional, technical, operational and legal aspects.
- Such a 'soft infrastructure' will be invisible to data space participants. It will entail functional and non-functional requirements regarding interoperability, portability, findability, security, privacy, and trustworthiness.



# BB assessment

## *Creation of a building blocks catalogue on GitHub*

### Building Blocks catalogue:

- Data Models & Formats
- Data Exchange APIs
- Provenance and traceability
- Identity Management
- Access & usage control
- Trusted Exchange
- Metadata & discovery
- Data usage accounting
- Publications & Marketplace
- Overarching cooperation agreements
- Operational
- Continuity Model

...

Data Interoperability	Data Sovereignty and Trust	Data Value Creation	Data Governance
<b>Data Models &amp; Formats</b> JSON-LD (others too → RDF), Smart Data Models, Vocabulary Provider	<b>Identity Management</b> Level 1: eIDAS, X509, VC/VP, OAuth2, XACML, Paris, ISHARE Satellites, Verifiable Registry Level 2: X.509, DAPS/DAT, VC/V, ODRL, IDS Connector Level3: User/password, VC/VP, OpenID, OAuth2, XACML	<b>Metadata &amp; Discovery</b> IDS Info model, Gaia-X Ontology, NGSI-LD, DCAT	<b>Cooperation agreements</b> SITRA rulebook IDSA rulebook
<b>Data Exchange API</b> ETSI NGSI-LD, Context Broker, IDS-Handshake, OpenAPI, EDC, Ocean Protocol	<b>Trusted Exchange</b> IDS Certification, Remote Attestation, VC/VP, iSHARE Satellite, EDC, TRUE Connector, Keyrock	<b>Publication &amp; Marketplace</b> TMForum APIs, FIWARE Business API Ecosystem, IDS Meta Data Broker, IDS Clearing House, Federated Catalog, Data Sovereignty Services, CKAN, Portal	<b>Operational agreements</b> SITRA rulebook IDSA rulebook
<b>Provenance &amp; Traceability</b> DLT, Data Provenance Tracking	<b>Access &amp; Usage Control</b> XACML Scheme, ODRL Policies, distributed PIP	<b>Data Usage Accounting</b> TMForum APIs, FIWARE Business API Ecosystem, IDS Clearing House, Data Contracting Service, Contract negotiation sequence	<b>Continuity model</b> IDSA rulebook

# PARTICIPATE IN THE OPEN DEI BUILDING BLOCKS SURVEY

Contribute to the success of OPEN DEI in designing the future of data spaces



## Objective

To evaluate building blocks of data spaces and work on the harmonization of data spaces.

## How to participate?

Fill out a [form](#) to share your thoughts and experiences us.

This information will be shared and commented within experts in three workshops.



## Workshops

- Kickoff meeting: 30<sup>th</sup> June, 14:00 - 15:00 (GMT+2)
- BB assessment
  - 1<sup>st</sup> meeting: 21<sup>st</sup> July 14:00 - 15:30 (GMT+2)
  - 2nd meeting: 1<sup>st</sup> September 14:00 - 15:30 (GMT+2)
- OPEN DEI TF1-IT2 Webinar: 16th September

The **final results** extracted from the meetings will be published under the **IDSA's Github page**.

The logo for IoT Week, featuring the letters 'IoT' in a stylized font with a blue-to-orange gradient, followed by the word 'Week' in white. The background of the slide is a dark, dimly lit conference hall with rows of chairs and a large screen at the front displaying the IoT Week logo.

# IoT Week

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# Thank you!

Find more:

[www.internationaldataspaces.org](http://www.internationaldataspaces.org)

M13 IoT Week exhibition

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[iotweek.org](http://iotweek.org)