

i4Trust - Overview

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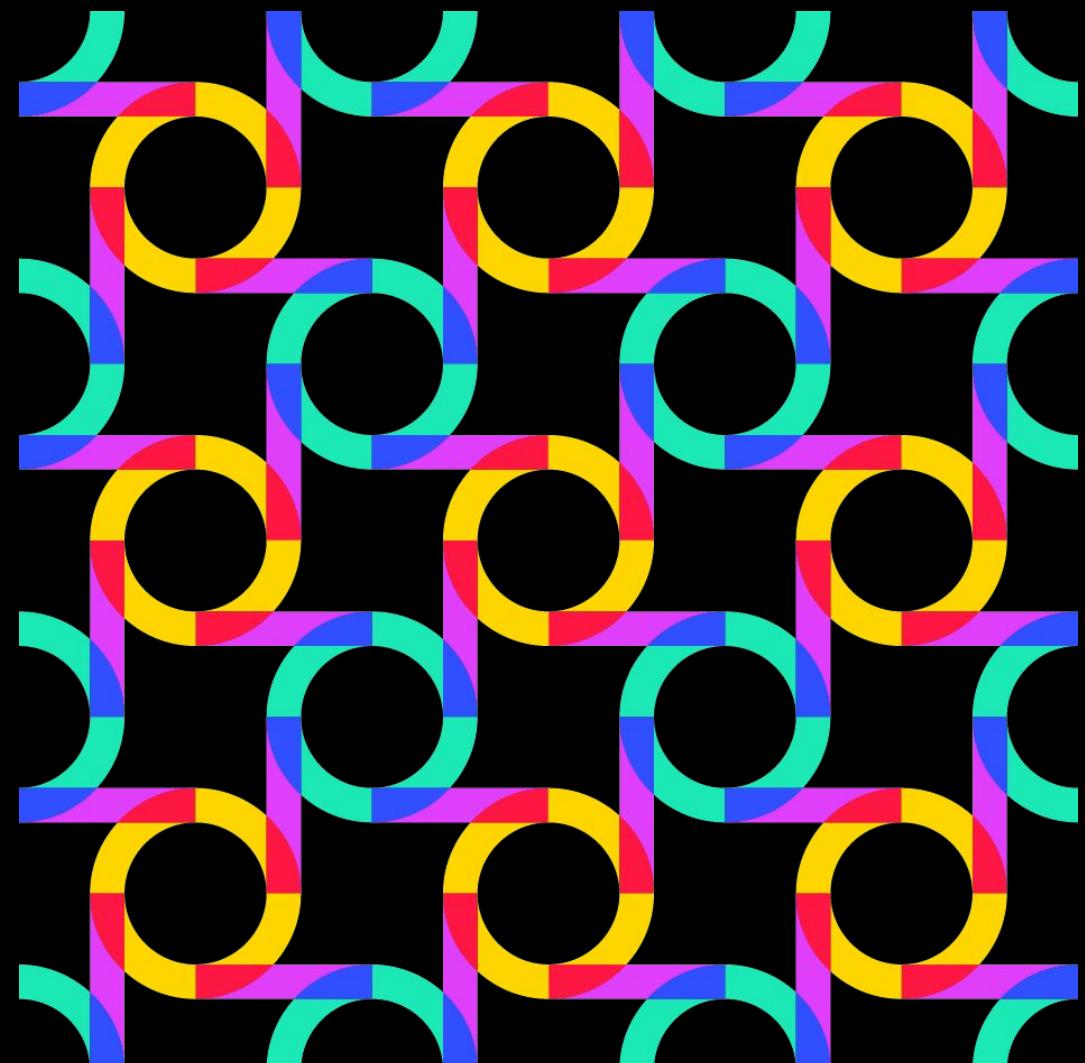
Dennis Wendland - Technical Lead/Architect FIWARE Foundation

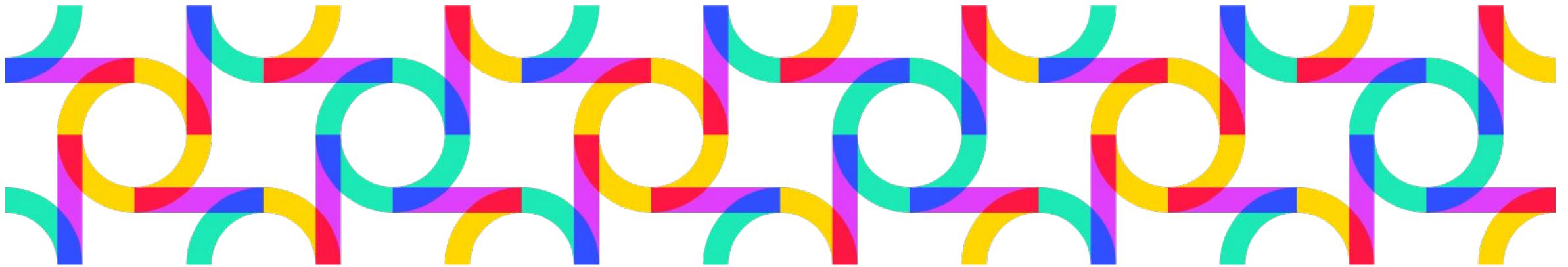
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Rajiv Rajani - CTO iSHARE Foundation

Xabier Chao - CIO Funding Box

Rosa Villaronga - Project Manager Funding Box





General introduction

i4Trust Goal, vision

i4Trust is breaking down barriers to data sharing

Our main goal is to boost the development of innovative services around new data value chains. We achieve this by providing the right tools, education, coaching and initial funding for the creation of Data Spaces enabling trustworthy and effective data sharing. Ecosystems of collaborating SMEs and supporting DIHs will emerge in a sustainable way around such Data Spaces.

A data space is an decentralized data ecosystem built by parties with a common purpose

- it can be defined as a decentralized data ecosystem built around commonly agreed building blocks for:
 - **Data Interoperability:** all participants exchange effectively because they speak the same language
 - **Sovereignty on Data and Trust:** trust of parties accessing data can be verified and access control policies enforced
 - **Data Value Creation:** Publication and Discovery of data service offerings and means for monetizing data services
 - **Governance:** adopted agreements for business, operational, and organizational (e.g., governance bodies) aspects
- At operation, data spaces involve actors in different roles:
 - Data providers and consumers
 - Trust Anchor service providers
 - Identity and Authorisation service providers
 - Marketplace/Broker providers



Examples of data spaces in real life

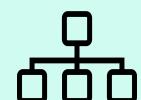
1. Data space logistics : saving CO2 and handling time for goods by working under the same trust framework and based on the same standards. And provide ad hoc access to the data of goods in case of emergencies.
2. Data space Energy : protecting data sovereignty while allowing energy saving services on the data generated by buildings.
3. Data space building : providing access to the detailed materials needed and on that basis provide a better planning, smoother building process and better insights in the circularity of the build.
4. Livestock farming: AI/ML service provider provides predictions on animal growth based on parameters from animals monitored by Smart Farm Management system as well as weather forecast services



Data Spaces Building Blocks

Making Data Spaces Happen ... Means to make choices

Data Interoperability



Data Models & formats

Data Sovereignty and Trust



Identity Management



Data Exchange API



Trusted Exchange



Provenance & Traceability



Access & Usage Control/Policies

Data Value Creation



Metadata & Discovery Services



Publication & Marketplace Services



Data Usage Accounting

Data Spaces Governance



Business Agreements



Operational Agreements

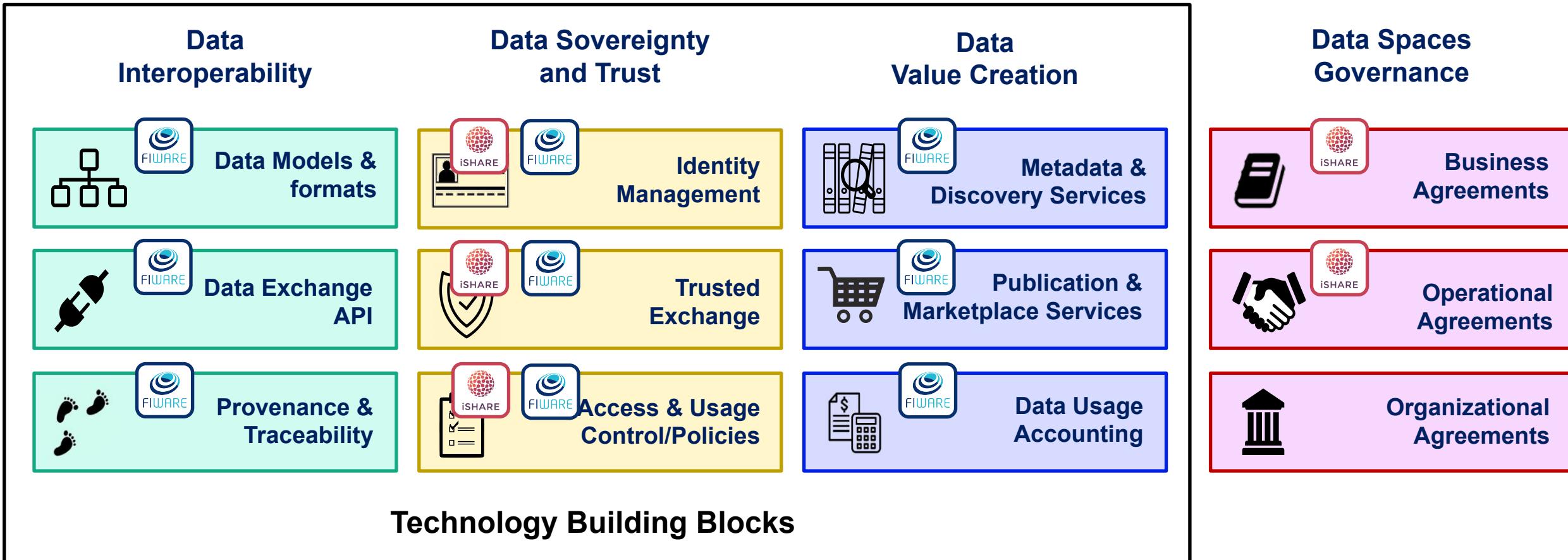


Organizational Agreements

Technology Building Blocks

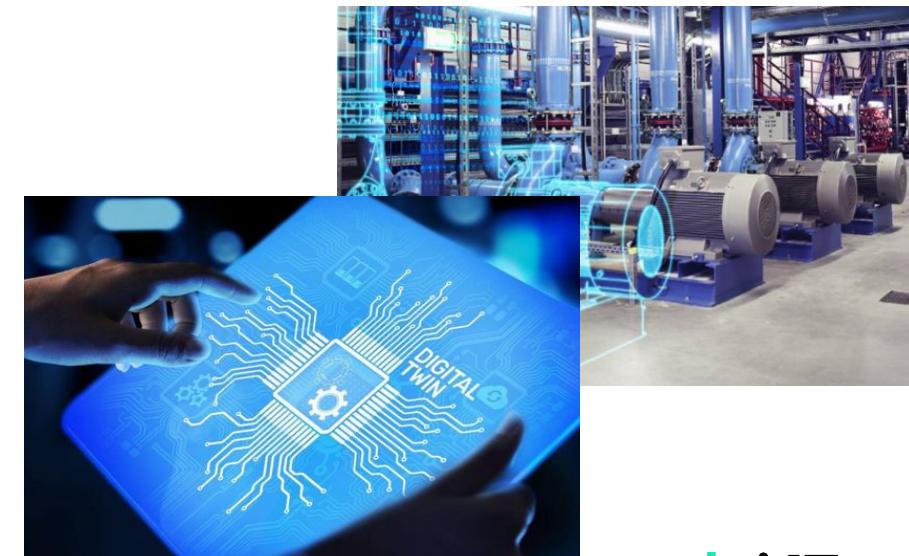
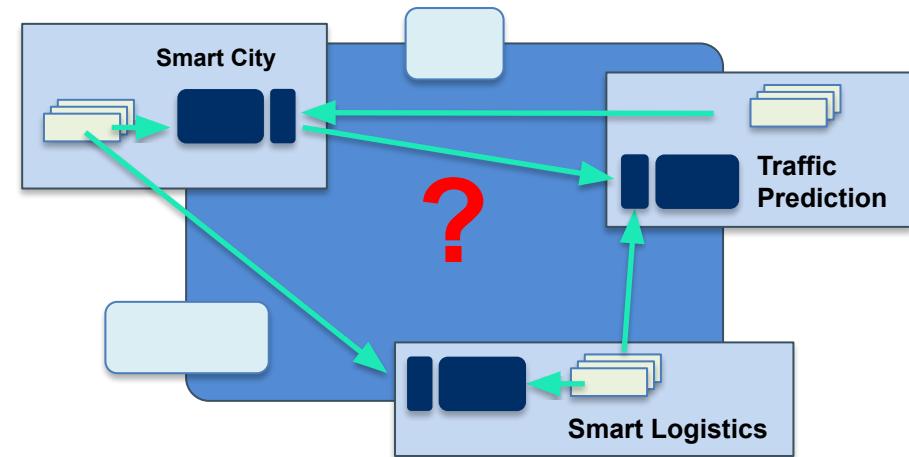
i4Trust: open source, mature technologies

iSHARE and FIWARE bring the necessary components along with basic governance structure to create **i4Trust data spaces**

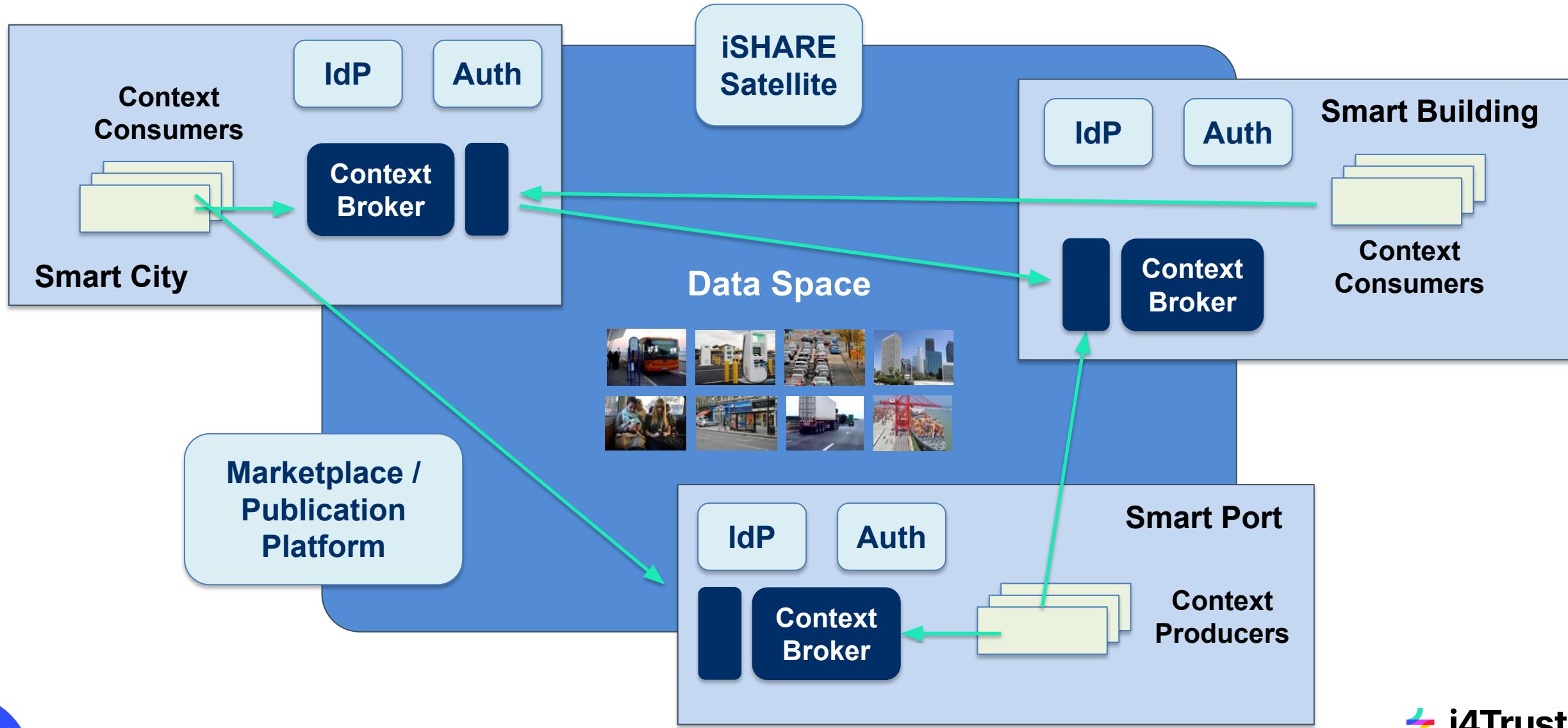


i4Trust: fundamental principles

- Fundamental principle in Data Spaces for a Data Economy:
 - Data providers publish data resources knowing that consumers, unknown “a priori”, know how to consume them
 - Data consumers know how to discover and consume data resources published by data providers
- This requires all participants to “speak the same language”:
 - Data exchange API (the sentences you construct)
 - Standard data models (what you speak about)
 - Common mechanisms for Identity and Access Management (IAM) (who speaks under what rules)
- Besides:
 - Means for verifying participants: Trust Anchor Services
 - Means for trading: Data Marketplace and Publication services
- i4Trust focuses on secure exchange between smart applications which exchange context / digital twin data:
 - Digital Twin = Digital representation of an real-world asset
 - Digital Twin data = Properties, Relationships
 - Context = Collection of Digital Twins



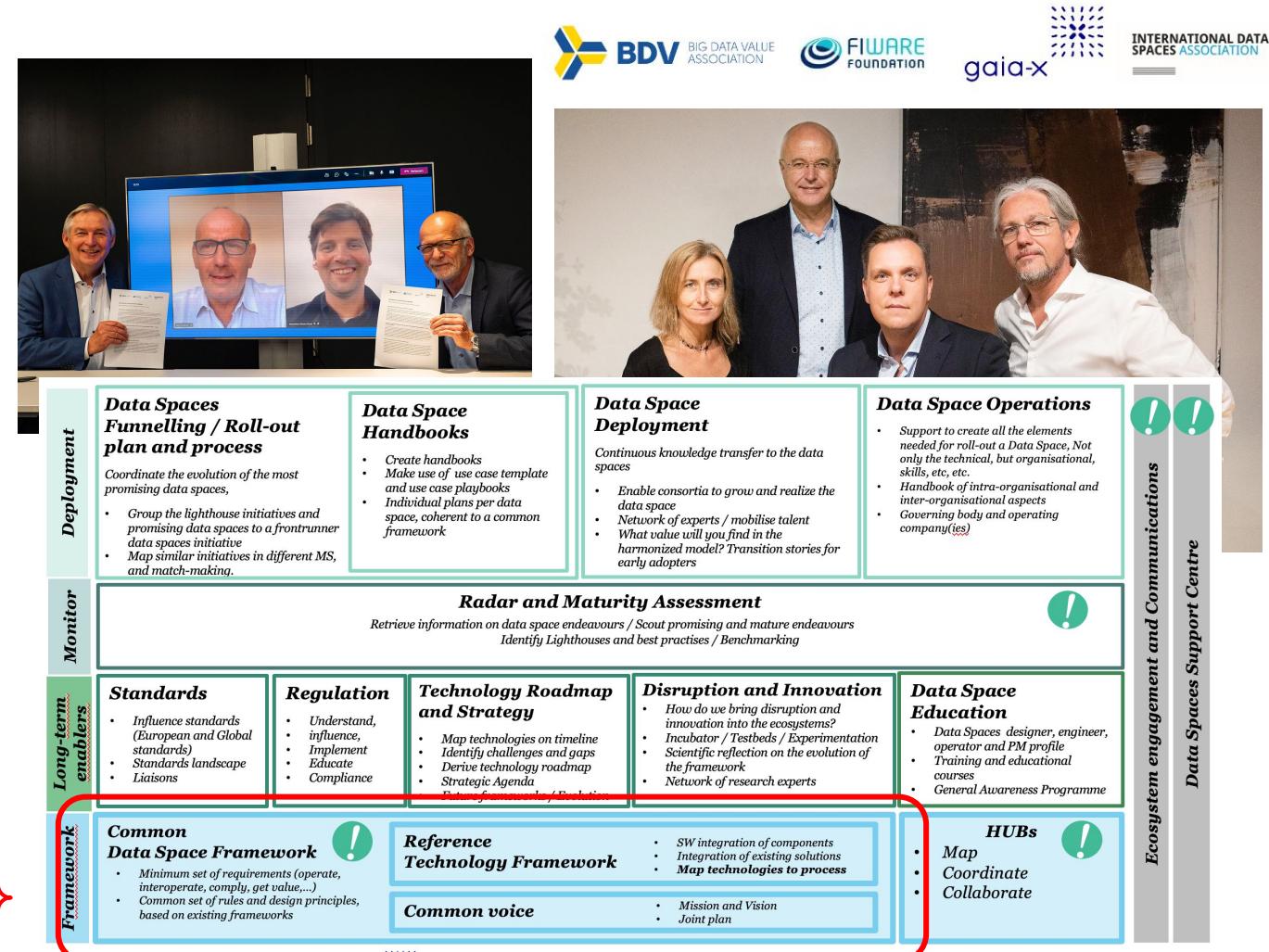
Effective and trusted data sharing



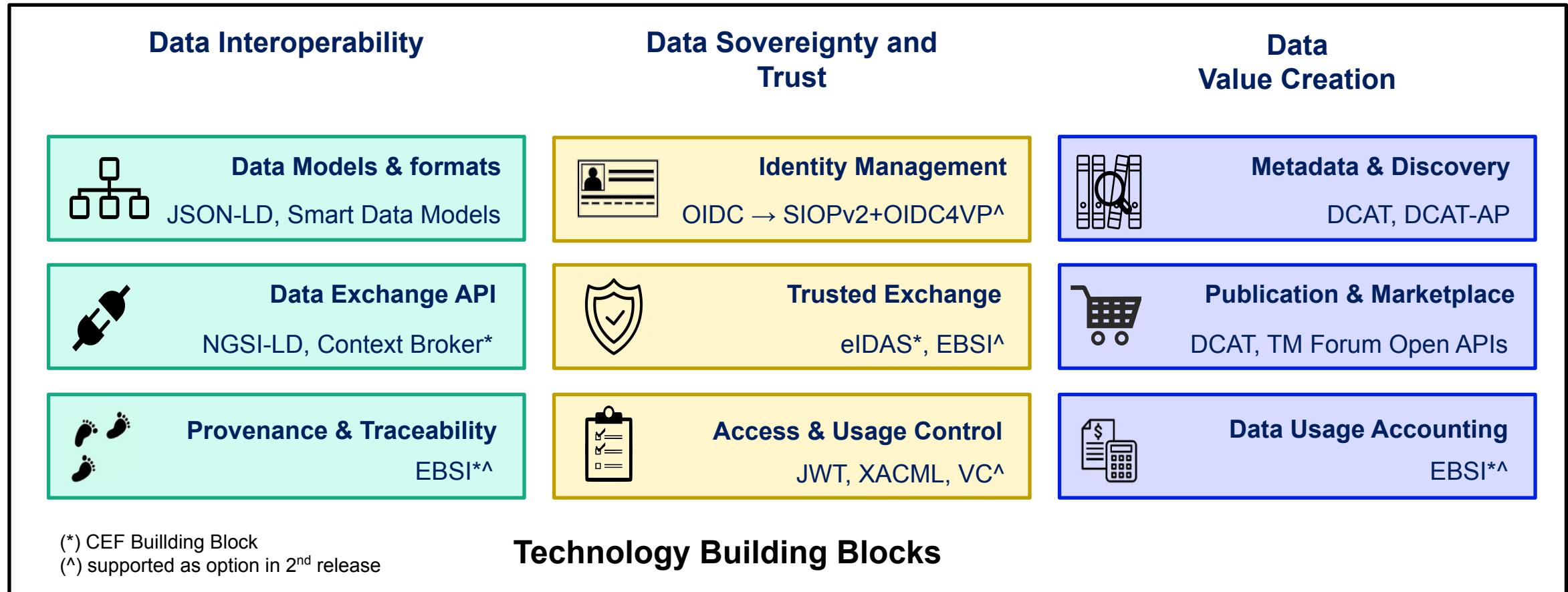
Data Spaces Business Alliance (DSBA): joining forces

BDVA, FIWARE, GAIA-X and IDSA launched the [Data Spaces Business Alliance \(DSBA\)](#) to accelerate Business Transformation in the Data Economy (Sep 23rd, 2021)

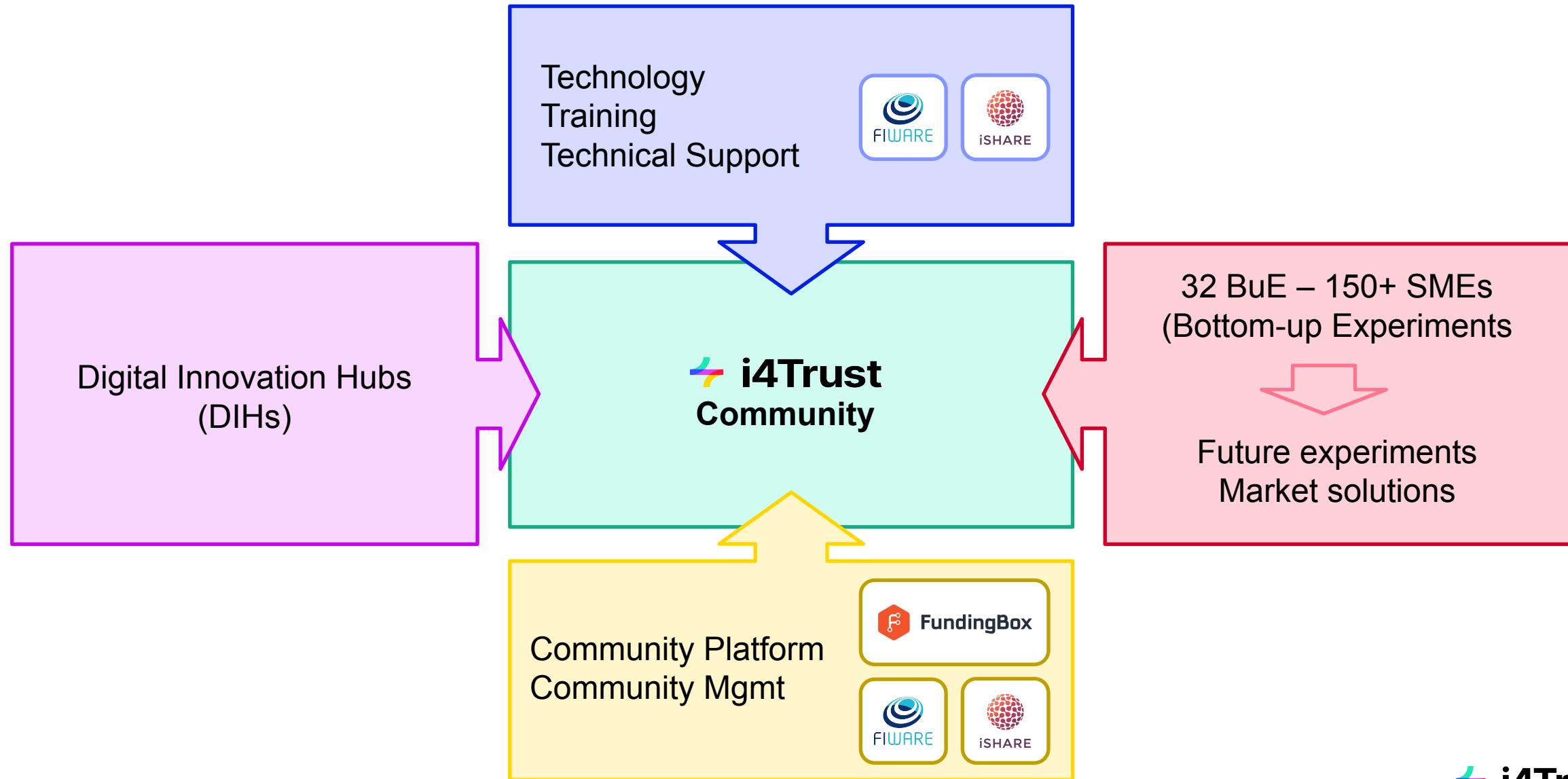
- One voice and a common framework to make interoperable Data Spaces happen;
- Together, the Alliance's founding organisations represent 1,000+ leading key industry players;
- With its combined cross-industry expertise, resources and know-how, the Alliance drives awareness and rely on more than 100 Hubs for dissemination
- [Technical Convergence discussions](#) towards common reference technology framework for creation of Data Spaces:
 - NGSI-LD + Smart Data Models for Data Interoperability
 - eIDAS and EBSI compatible Trust Anchor Services
 - Decentralized IAM based on W3C DID+VC/P standards (supporting OpenID and DIDcomm protocols)
 - Data Services Marketplaces connected to Gaia-X Catalogue of self-descriptions



i4Trust: standard-based, CEF Compatible technologies, evolved to support first DSBA Technology Convergence results



Going beyond the technology: a vibrant Community



i4Trust Values (our DNA)



TRUSTWORTHINESS

Thanks to the unified framework for identification and the robust legal frameworks that i4Trust brings, you can **trust the participants** you exchange data with.



SOVEREIGNTY

i4Trust brings the means for enforcing the data access and usage policies you want to define, bringing you the power to **be the sovereign of your data**.



EFFECTIVENESS

Designed for the exchange of data among Smart Solutions, i4Trust brings a standard data exchange API and data models guaranteeing you to **effectively share data**



OPENNESS

i4Trust is open, based on open-standard and implemented as Open Source, allowing you to **avoid vendor lock-in**, thus protecting your investment and reducing costs.



CROSS-DOMAIN

i4Trust unleashes the potential of data sharing among different participants in multiple domains, allowing you to **define cross-domain data value chains**.



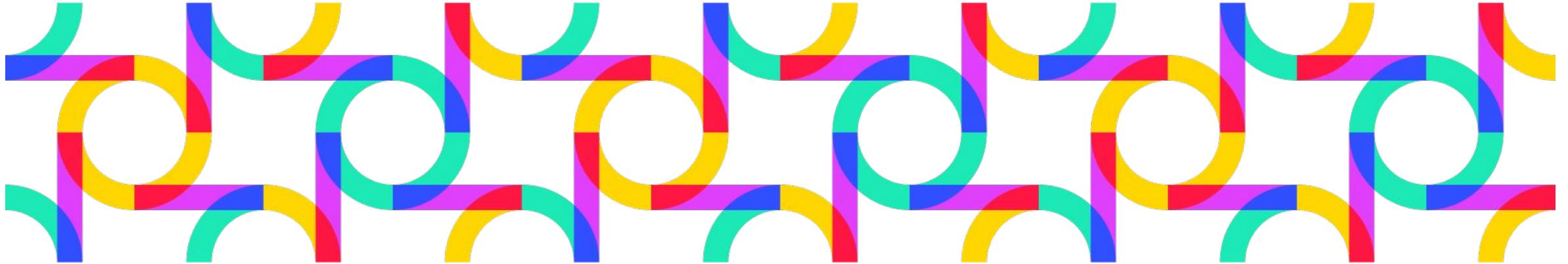
INNOVATION

By combining tools enabling multi-side markets and the ability to monetize data, i4Trust will bring you the opportunity to **create innovative business models**.

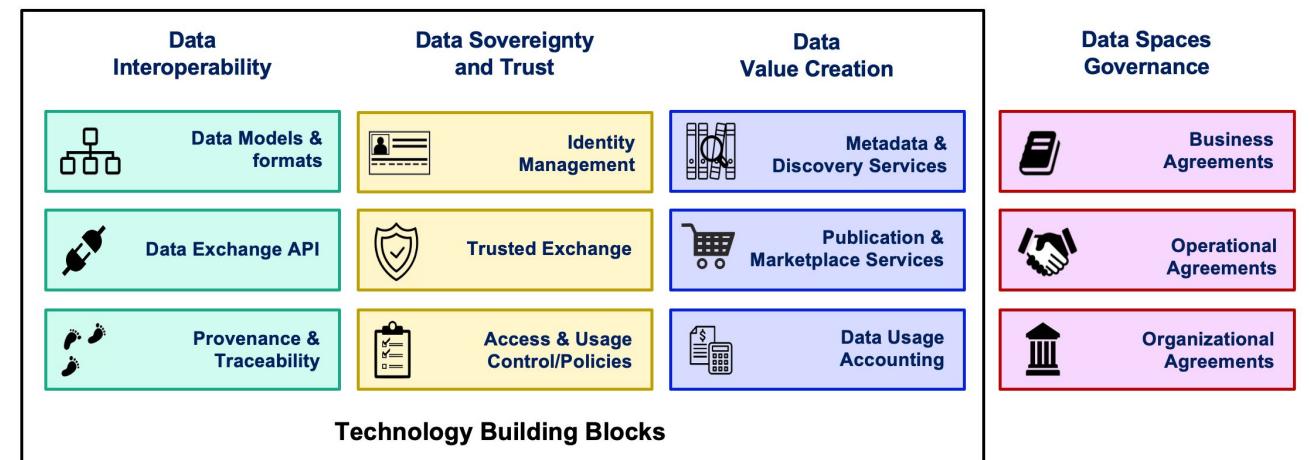


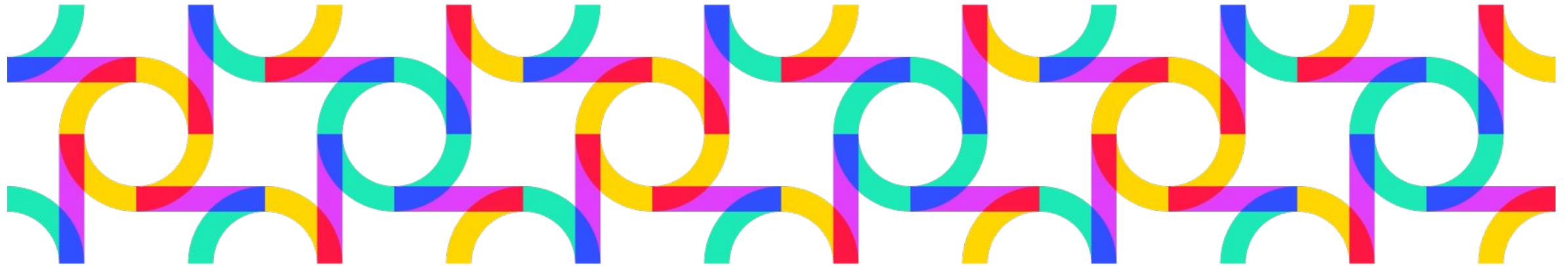
GROWTH

i4Trust Community is formed by experts engaged in a process of collective learning and human endeavor to **scale your business** and gain stronger position in the market.

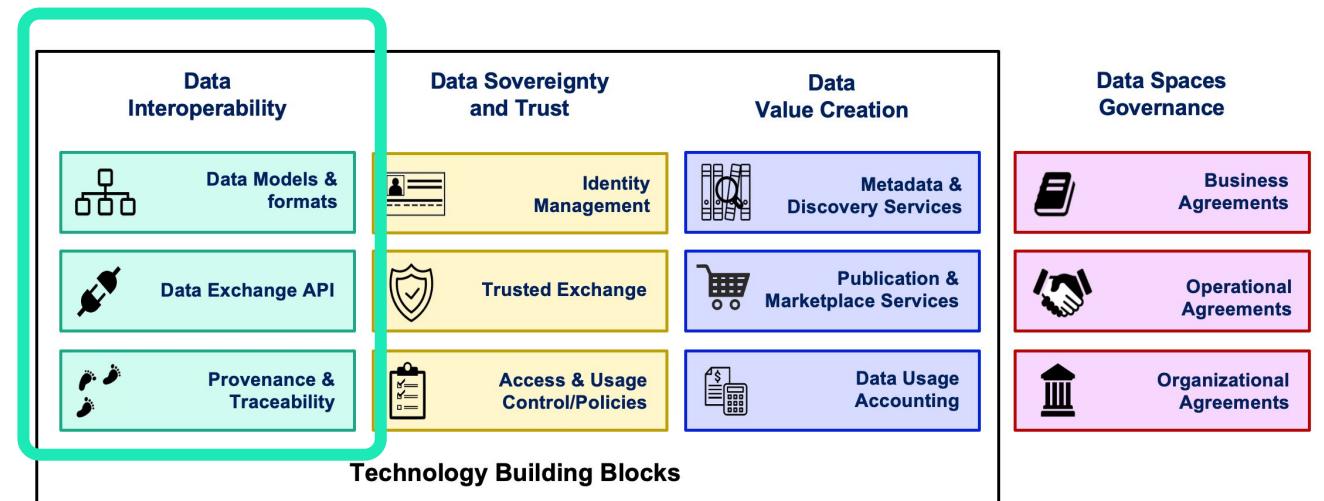


i4Trust Building Blocks

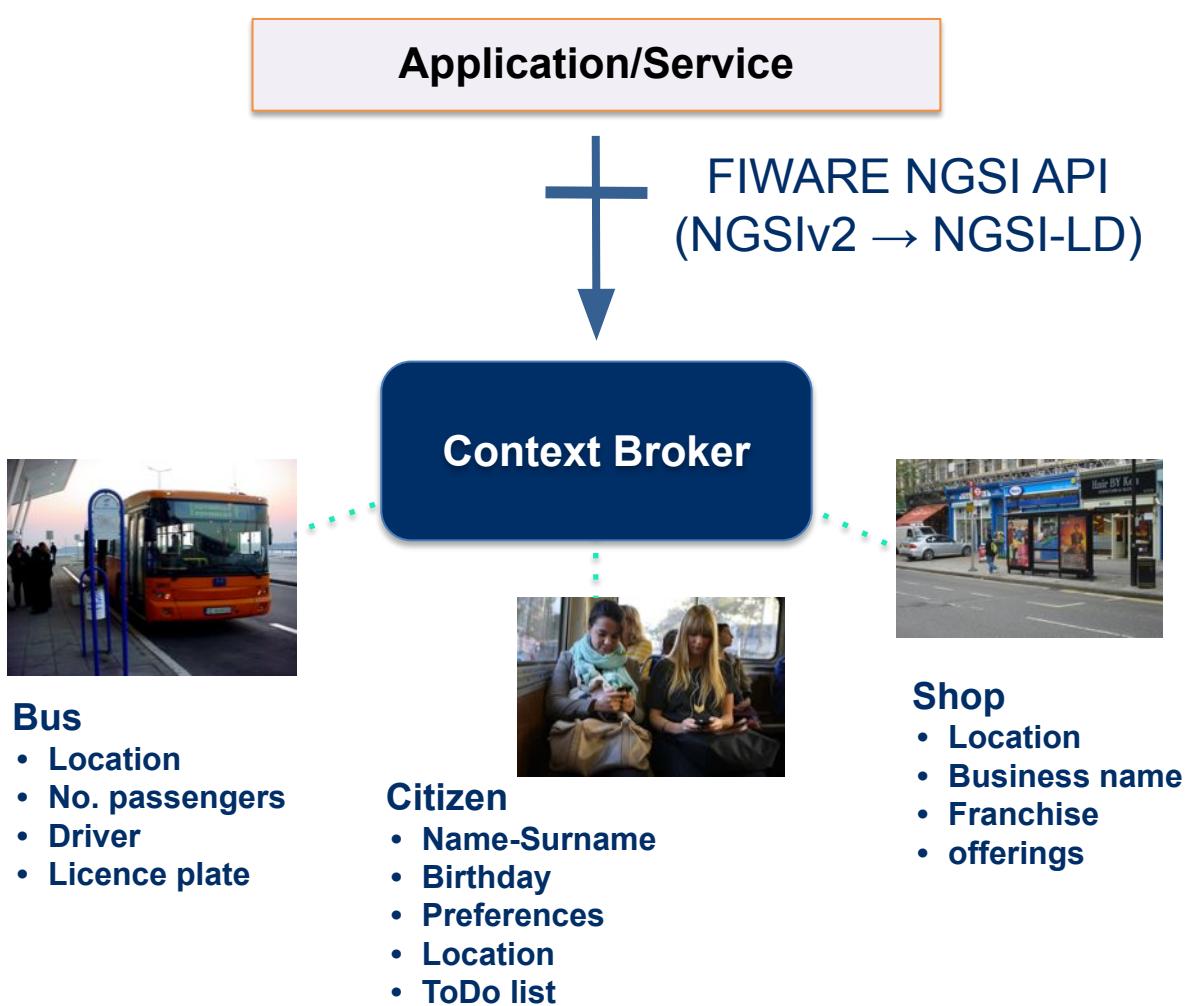




Data Interoperability

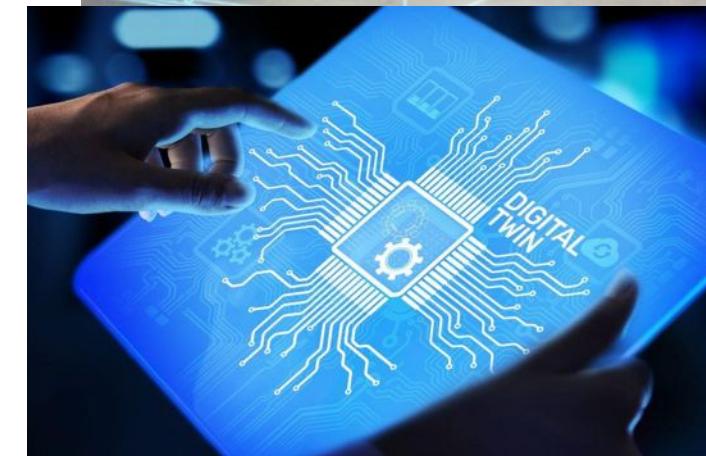


Data Exchange API: ETSI NGSI-LD

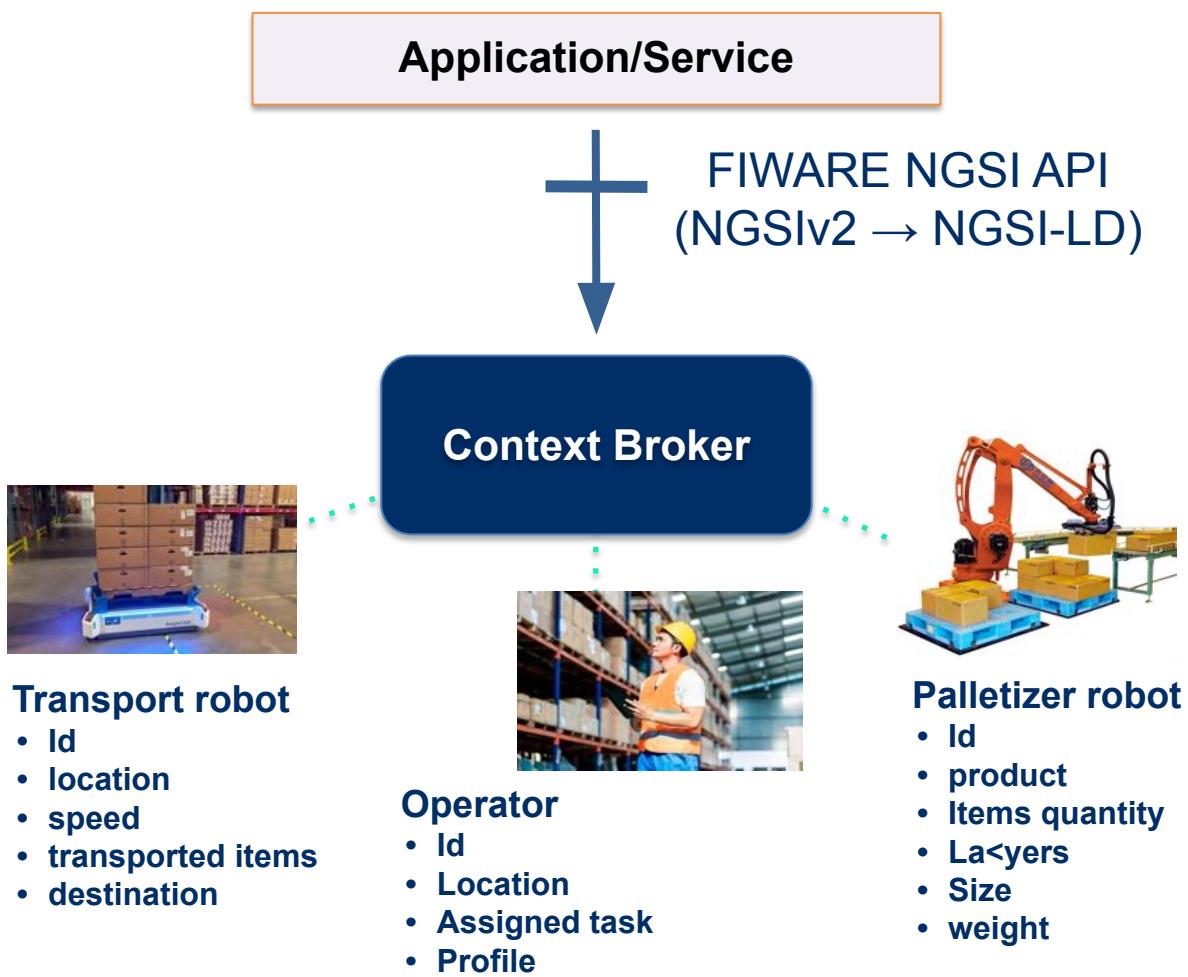


What are we referring to as Digital Twin?

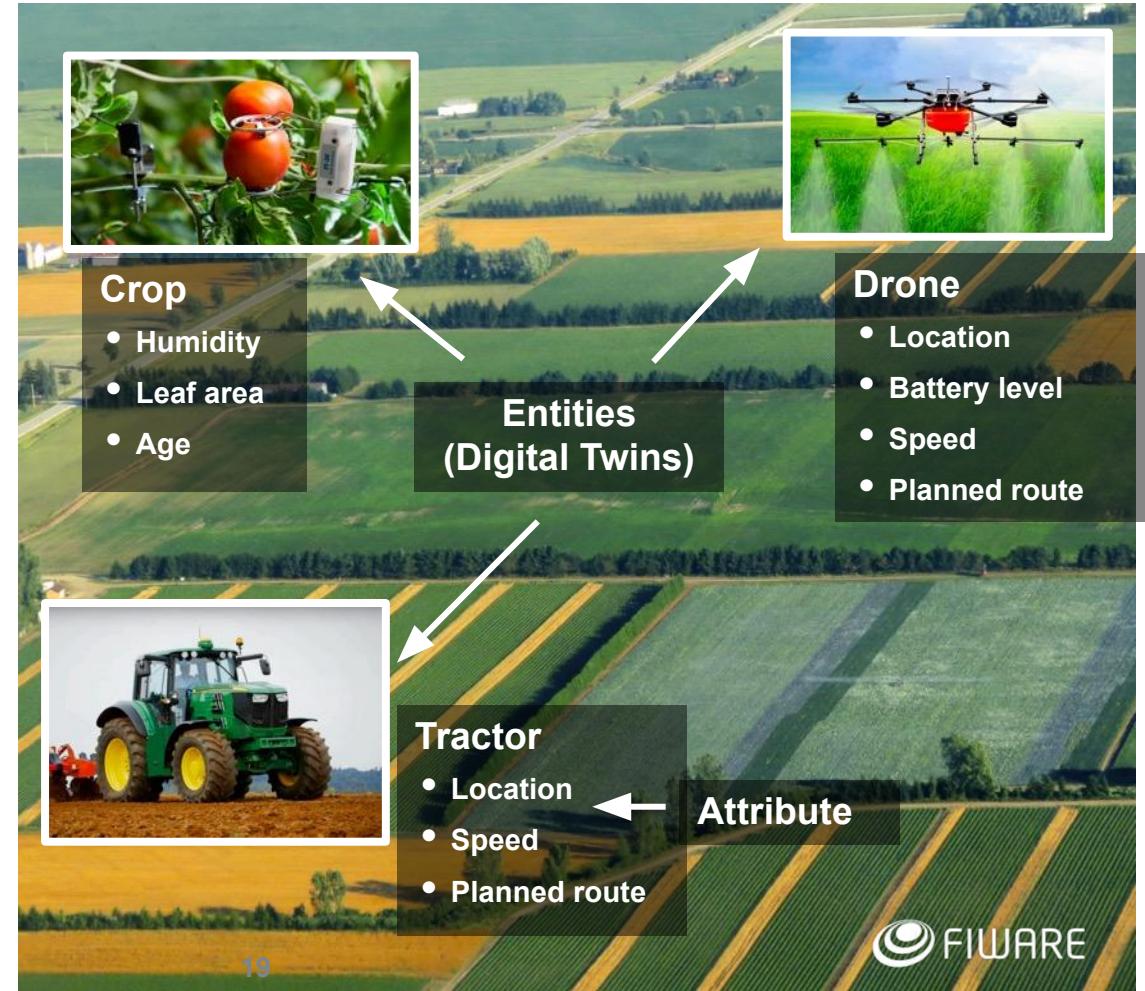
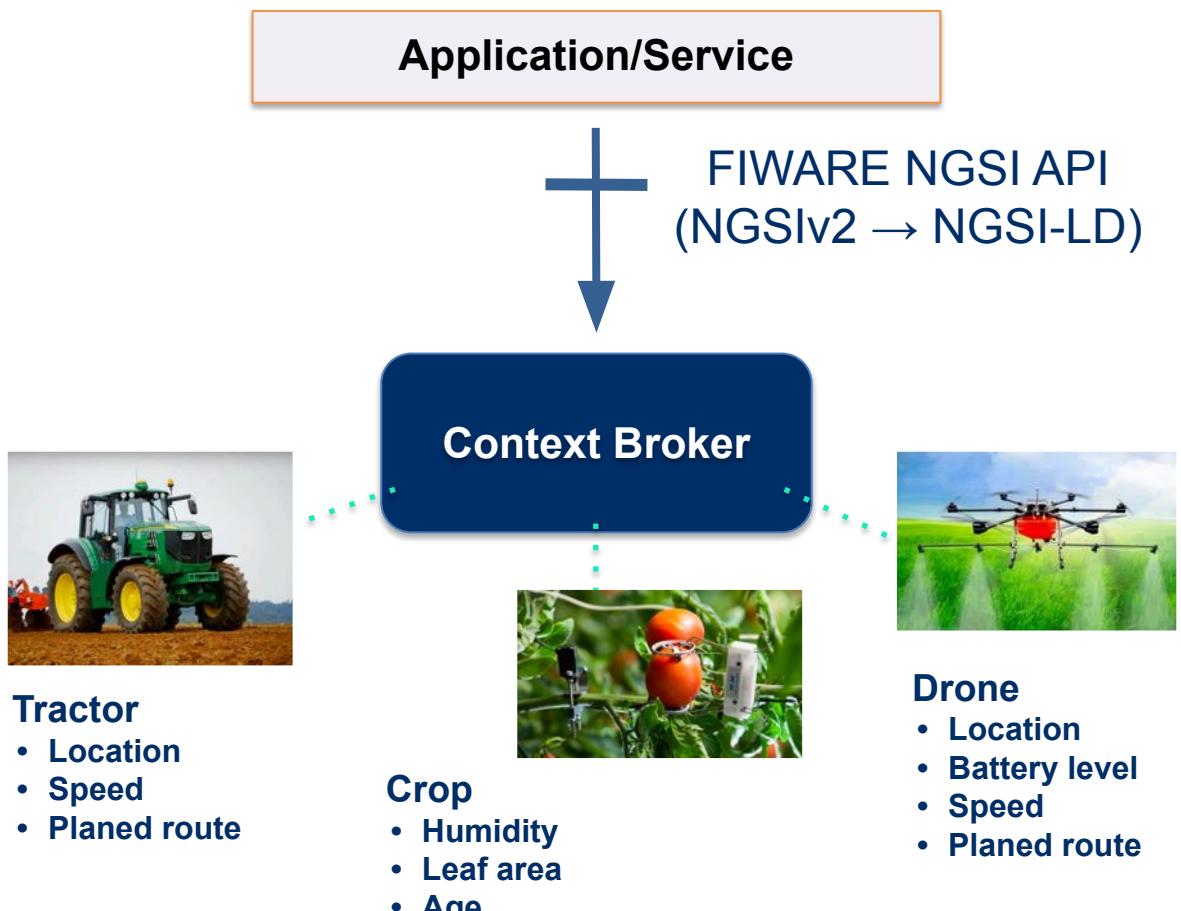
- **Digital Twin** = Digital representation of an asset
 - Characterized by attributes
 - Properties
 - Relationships (Linked Data)
 - Values of attributes may change over time (or not)
 - Typically have a location (but it is not a must requirement)
- (digital representation of) **Context** = Digital Twins Collection
- **Cornerstone for the development** of interoperable and replicable (portable) Smart Solutions:
 - **Standard API** for getting access to Digital Twin data (context)
 - **Common Data Models** associated to Digital Twin classes
- **FIWARE** has driven standardization+adoption:
 - **NGSI: ETSI NGSI-LD API** (based on initial NGSIv2)
 - **Smart Data Models initiative** (800+ data models)



Data Exchange API: ETSI NGSI-LD



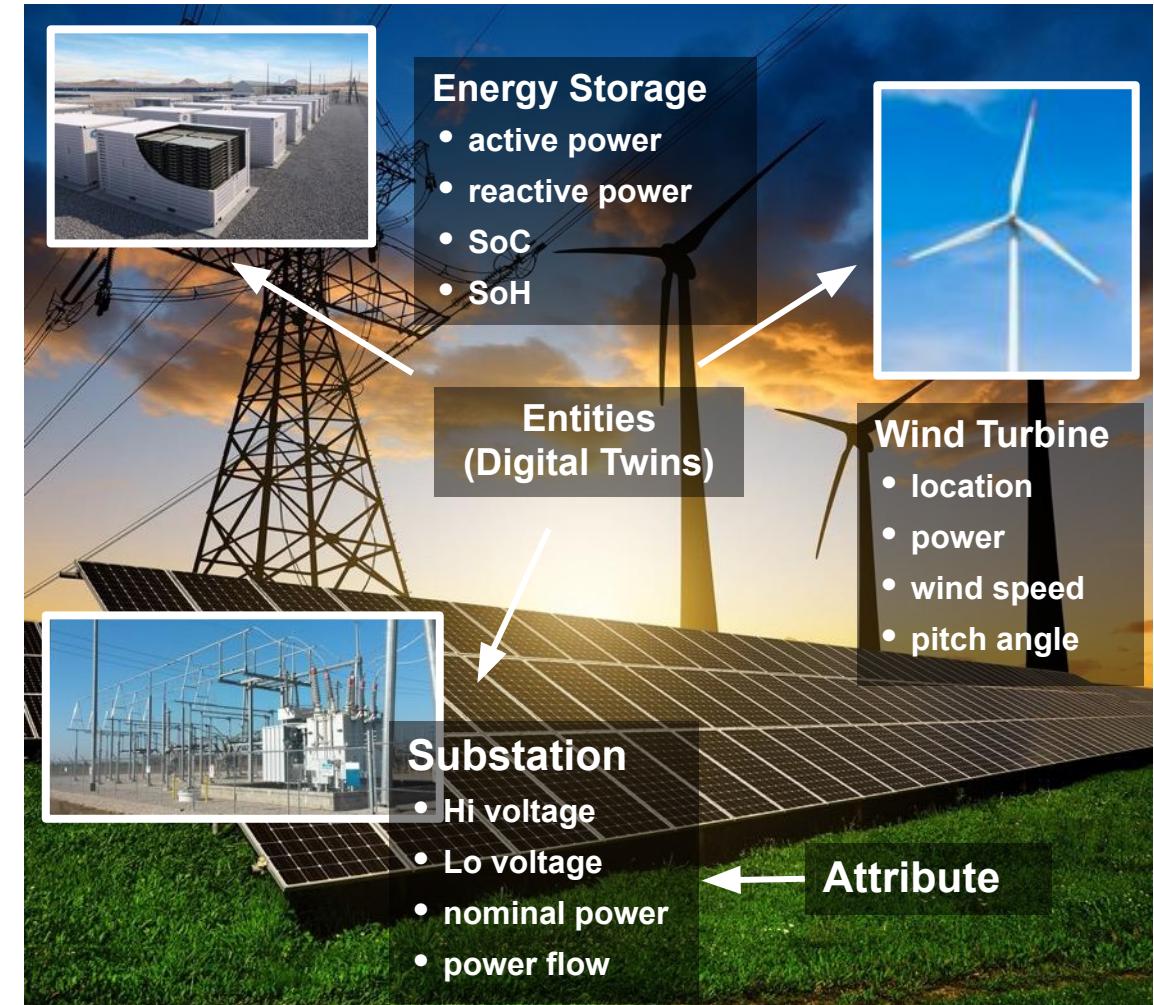
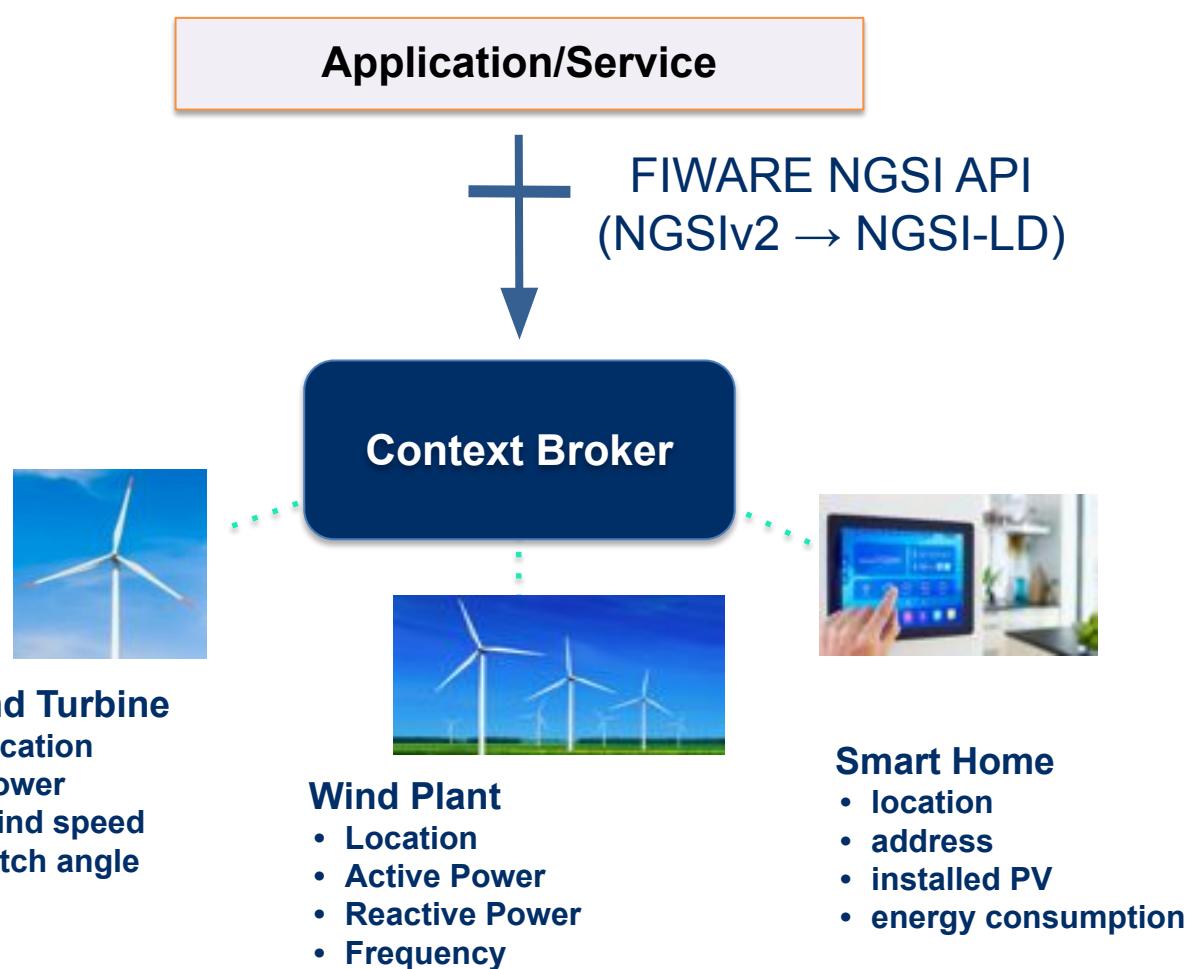
Data Exchange API: ETSI NGSI-LD



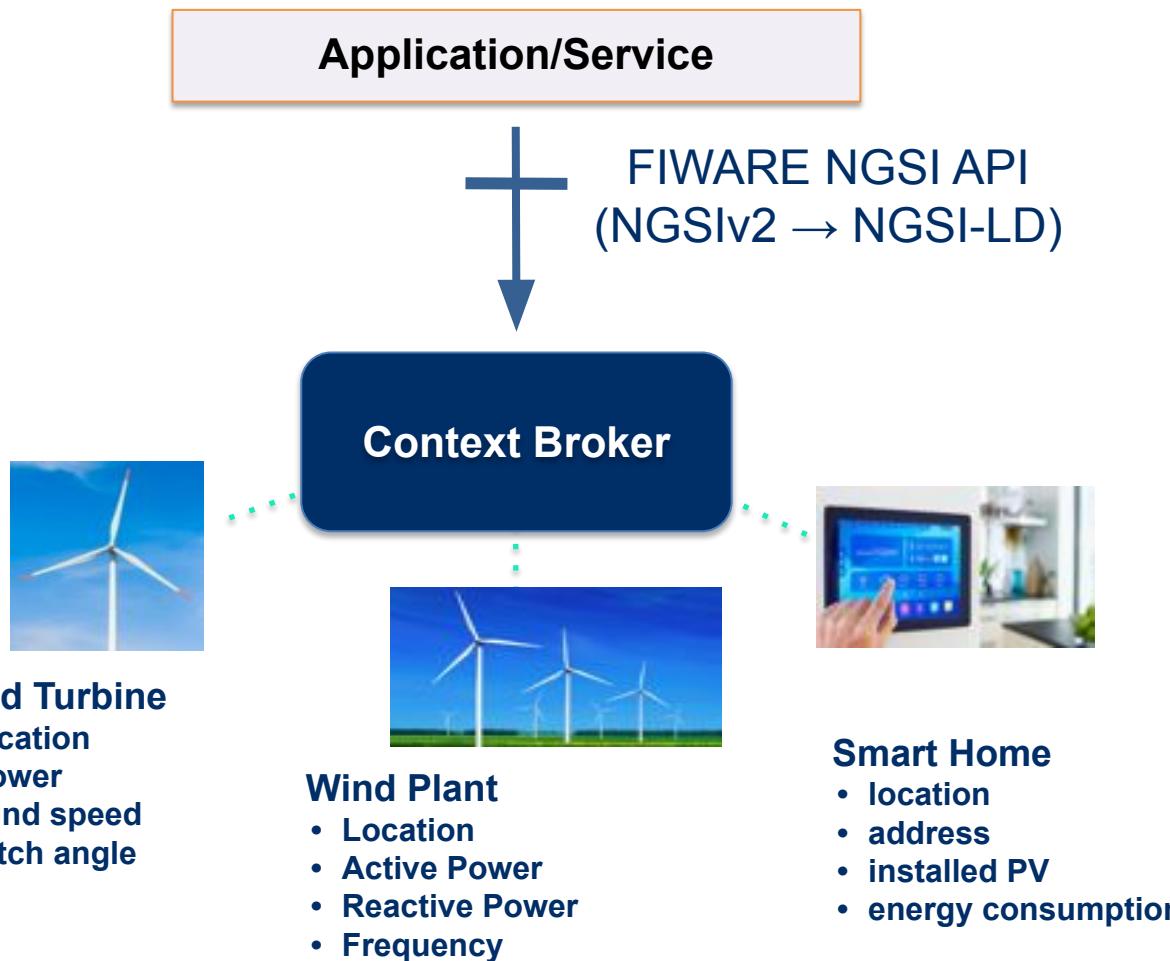
Data Exchange API: ETSI NGSI-LD



Data Exchange API: ETSI NGSI-LD



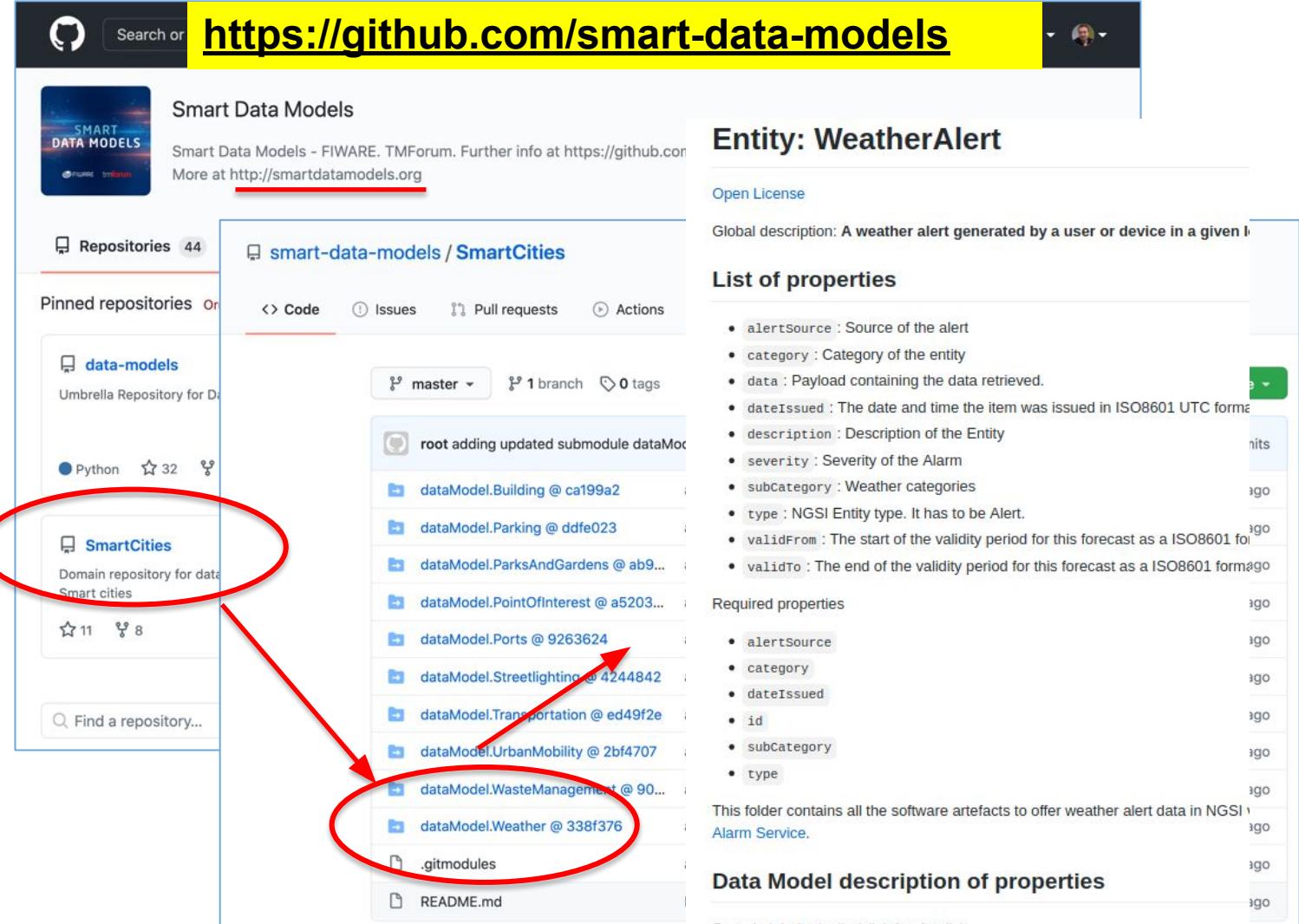
Data Exchange API: ETSI NGSI-LD



- NGSI-LD is a simple yet powerful REST API
- Simple: simple operations are rather simple, what you would expect in a RESTful API
 - Entity types, entities, attributes have a path
 - You perform standard GET, POST, PUT, PATCH, DELETE operations
- Yet powerful: powerful operations supported
 - Geo-queries
 - Subscription / Notification
 - Stream injection/forwarding/notification
 - Pull/Push styles for gathering data
 - Multiple data "renderings" (key value, normalized, GeoJSON)
 - Temporal operations
 - Federation mechanisms

Smart Data Models

- Goal: provide a useful global “resource library” for developers
- For each model:
 - documentation in 6 languages
 - mapping (with validation schemas and examples) to DTDL and 4 serialization formats: JSON, JSON-LD, CSV, GeoJSON feat.
- Principles:
 - Agile process (6 weeks)
 - Implementation-driven
 - Cross-sector
- Defined data models rely on relevantly adopted standards (e.g., schema.org, SAREF, IEC CIM in Energy or UNE 178503 for Tourism) and contributions from real projects by the Community

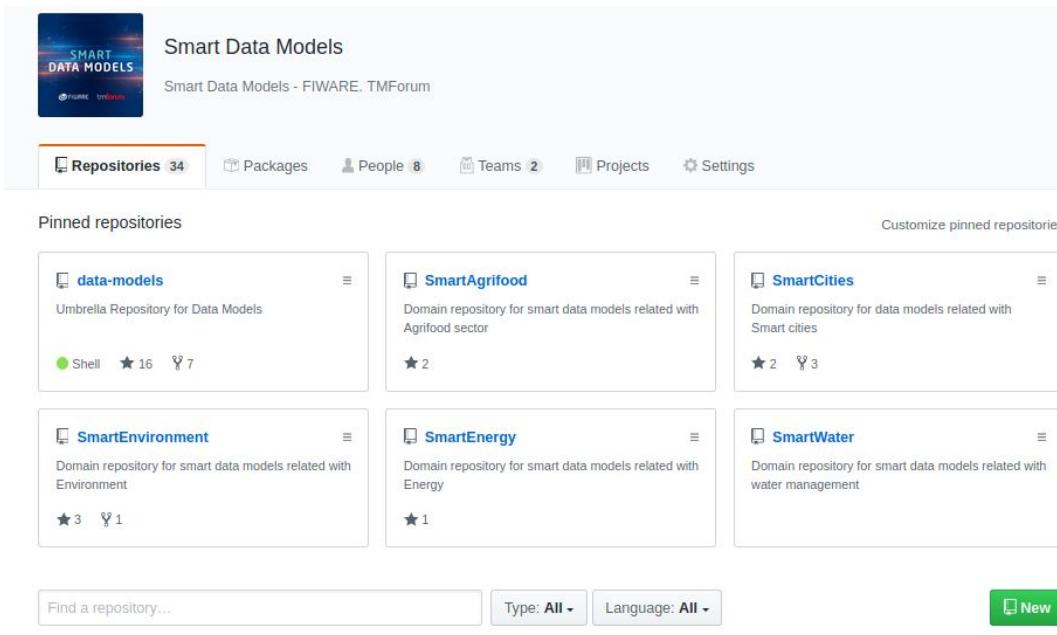


The screenshot shows a GitHub repository page for "smart-data-models / SmartCities". The URL in the address bar is <https://github.com/smart-data-models>. The repository has 44 repositories pinned. A red circle highlights the "SmartCities" repository under "Pinned repositories". An arrow points from this circle to another red circle highlighting the "dataModel.Weather" folder in the main repository's contents. This folder contains files like "dataModel.Building", "dataModel.Parking", "dataModel.ParksAndGardens", "dataModel.PointOfInterest", "dataModel.Ports", "dataModel.Streetlighting", "dataModel.Transportation", "dataModel.UrbanMobility", "dataModel.WasteManagement", and "dataModel.Weather". The "dataModel.Weather" folder is described as containing software artifacts for offering weather alert data in NGSI Alarm Service. The "Properties" section lists required properties: alertSource, category, dateIssued, id, subCategory, and type. The "Data Model description of properties" section indicates properties are sorted alphabetically, and there is a link to full YAML details. The "Example payloads" section is also present.

Smart Data Models: Webs

GITHUB

<http://github.com/smart-data-models>

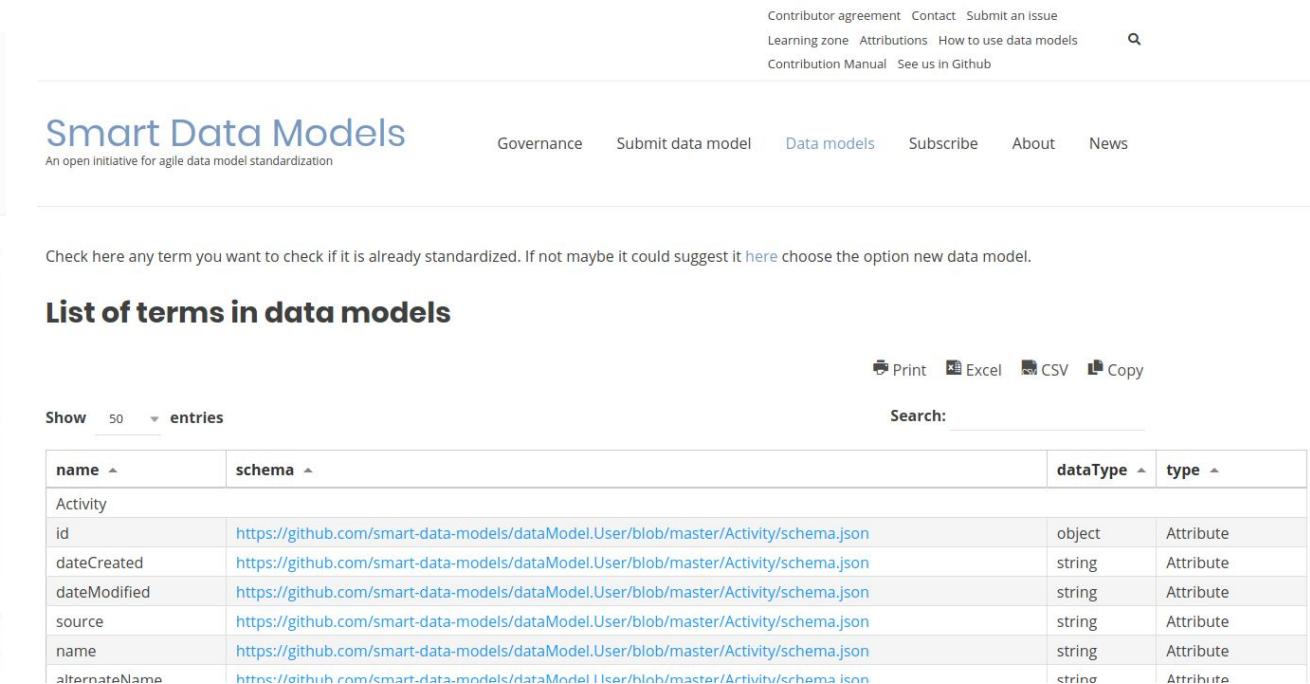


The screenshot shows the GitHub repository page for "Smart Data Models". It features a header with the repository name and a "Smart Data Models - FIWARE, TMForum" badge. Below the header, there are tabs for "Repositories 34", "Packages", "People 8", "Teams 2", "Projects", and "Settings". A section titled "Pinned repositories" displays six repositories: "data-models" (Umbrella Repository for Data Models), "SmartAgrifood" (Domain repository for smart data models related with Agrifood sector), "SmartCities" (Domain repository for data models related with Smart cities), "SmartEnvironment" (Domain repository for smart data models related with Environment), "SmartEnergy" (Domain repository for smart data models related with Energy), and "SmartWater" (Domain repository for smart data models related with water management). Each pinned repository card includes a star rating, a green "Shell" icon, and a "New" button.

- Oriented to **developers**
- All resources available
- Contribution by PR
- Issues on data models

WEBSITE (Wordpress)

<http://smartdatamodels.org>

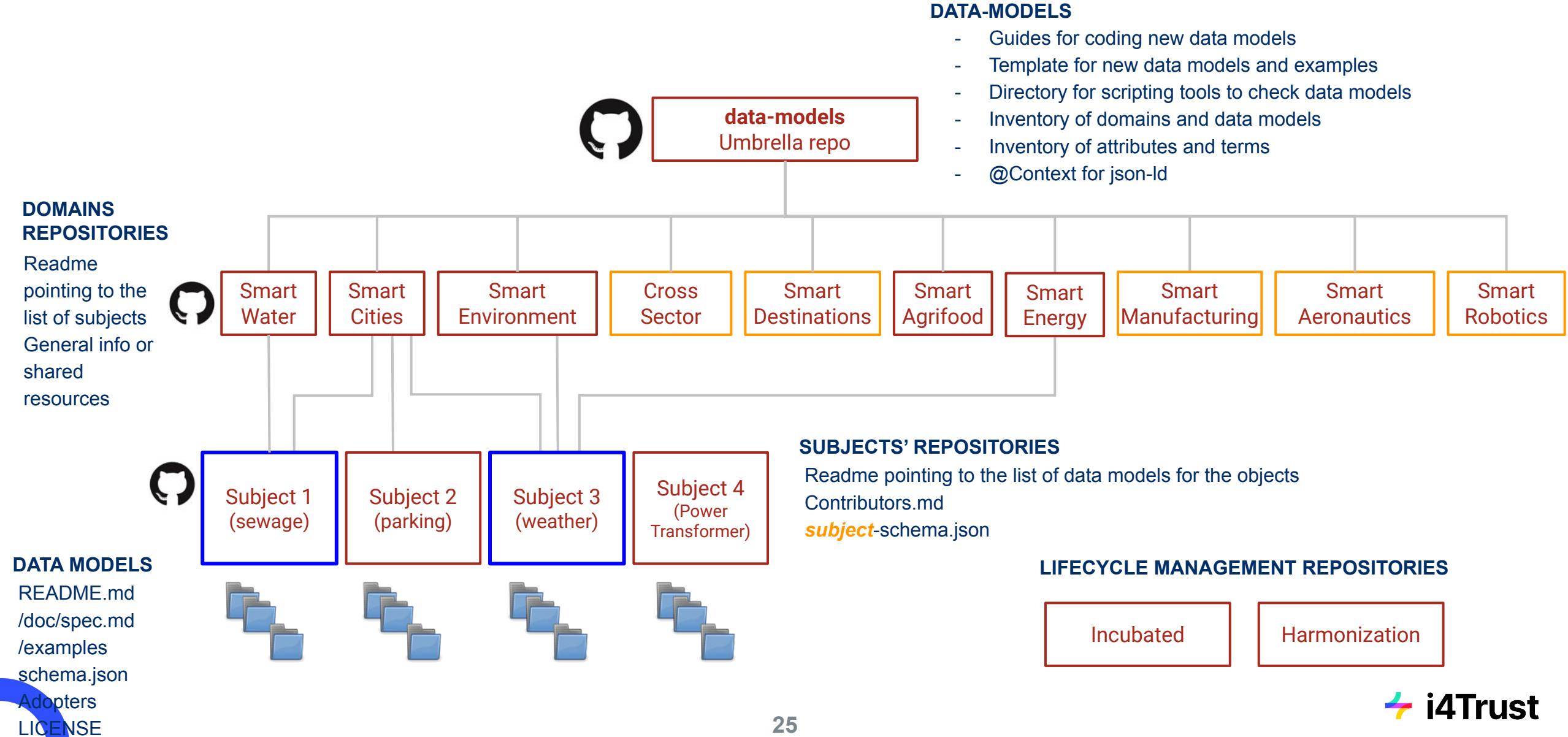


The screenshot shows the "Smart Data Models" website, which is an open initiative for agile data model standardization. The header includes links for "Governance", "Submit data model", "Data models", "Subscribe", "About", and "News". Below the header, a message encourages users to check standardized terms or suggest new ones. A section titled "List of terms in data models" displays a table of terms with columns for "name", "schema", "dataType", and "type". The table lists attributes for the "Activity" schema, such as "id", "dateCreated", "dateModified", "source", "name", and "alternateName", each with its corresponding URL and data type. At the bottom of the table are "Print", "Excel", "CSV", and "Copy" buttons, along with a "Search:" input field.

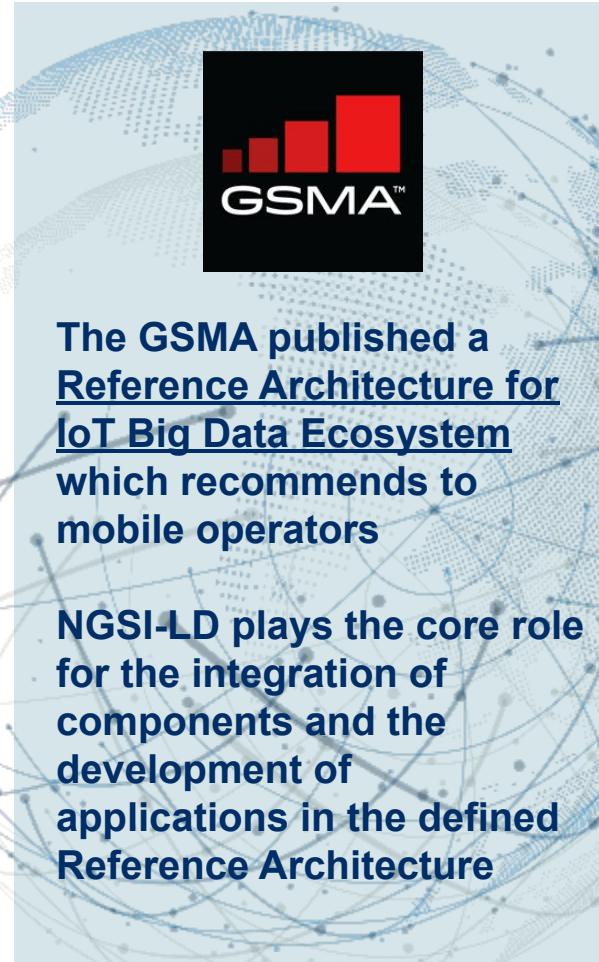
name	schema	dataType	type
Activity			
id	https://github.com/smart-data-models/dataModel.User/blob/master/Activity/schema.json	object	Attribute
dateCreated	https://github.com/smart-data-models/dataModel.User/blob/master/Activity/schema.json	string	Attribute
dateModified	https://github.com/smart-data-models/dataModel.User/blob/master/Activity/schema.json	string	Attribute
source	https://github.com/smart-data-models/dataModel.User/blob/master/Activity/schema.json	string	Attribute
name	https://github.com/smart-data-models/dataModel.User/blob/master/Activity/schema.json	string	Attribute
alternateName	https://github.com/smart-data-models/dataModel.User/blob/master/Activity/schema.json	string	Attribute

- Oriented to **end users**
- News on updates (subscription)
- Check attributes and enumerations

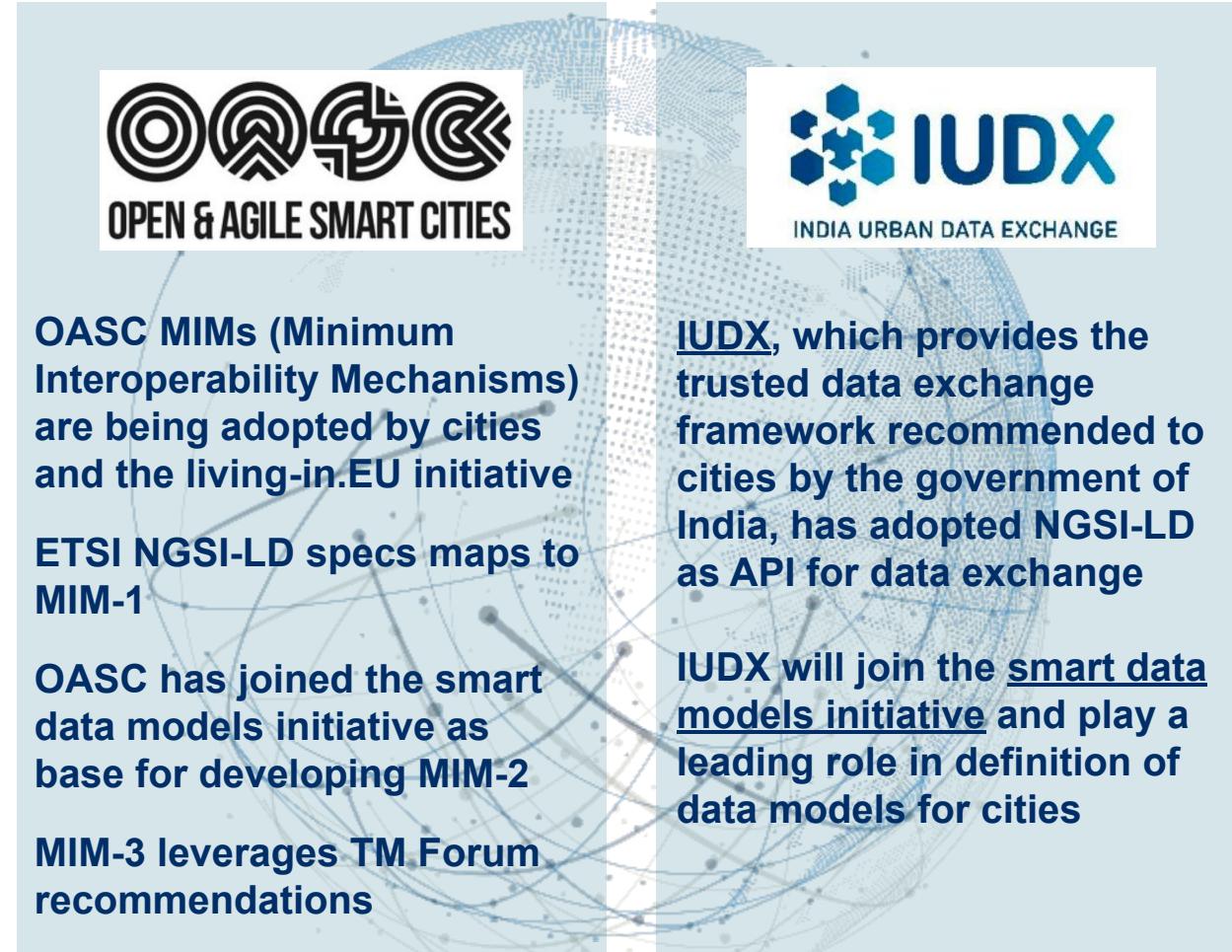
Smart Data Models: domains and subjects



Why NGSI-LD, Smart Data Models: endorsement at global level



Why NGSI-LD, Smart Data Models: endorsement at global level





OPEN & AGILE SMART CITIES

OASC MIMs (Minimum Interoperability Mechanisms) are being adopted by cities and the living-in.EU initiative

ETSI NGSI-LD specs maps to MIM-1

OASC has joined the smart data models initiative as base for developing MIM-2

MIM-3 leverages TM Forum recommendations

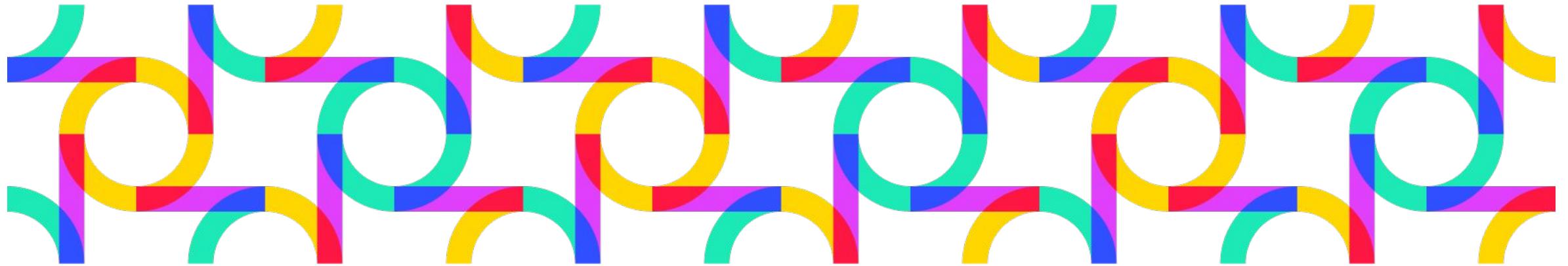


IUDX

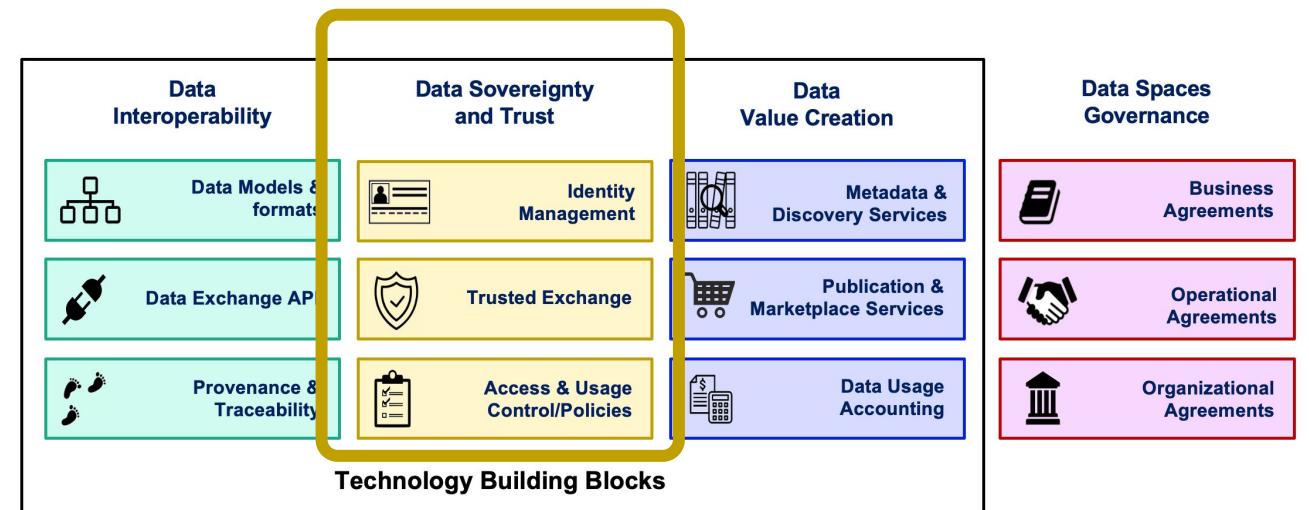
INDIA URBAN DATA EXCHANGE

IUDX, which provides the trusted data exchange framework recommended to cities by the government of India, has adopted NGSI-LD as API for data exchange

IUDX will join the smart data models initiative and play a leading role in definition of data models for cities

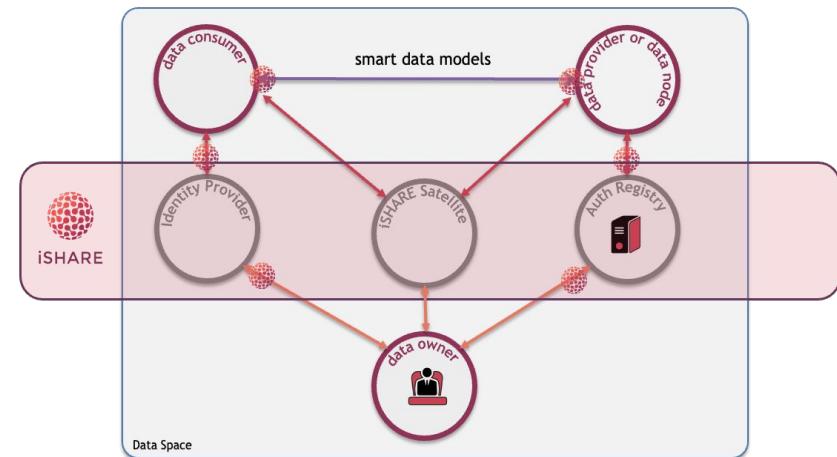


Data Sovereignty and Trust



Data sovereignty and trust: principles

- Identity and access/control policies should be handled:
 - At organization level (participants)
 - At the level of users of data services within each organization
- Identity, Authentication and Authorization based on standards:
 - OpenId Connect (OIDC) and DID+VC/VP, SIOPv2 + OIDC4VP
 - XACML-like architecture: PEP - PDP - PMP (AR) - PAP - PIP
- There will be a trust authority that certifies what organizations are considered trusted parties in a data space
- Model should work assuming there is no single global Identity Provider and Authorization Registry (PMP role in XACML), each organization may have:
 - Its own certified Identity Provider (IdP) for managing identity of users
 - Its own Authorization Registry (and PAP):
 - Its own XACML PEP proxy and PDP server



Trustworthy Identification, Authentication and Authorisations

Interaction



Machine-to-Machine (M2M)

Communication between machines,
without interference by a human



Human-to-Machine (H2M)

Communication between a human and (a) machine(s).
Requires a user interface

Facilitate



Flexible authorizations

- Coarse-grained: broad authorization
- Fine-grained: specific authorization
- Flexibility on where to store authorizations



Portable identities

Identities can be spread out and recognised, i.e.
portable, across multiple, independent systems

Enable



Delegations

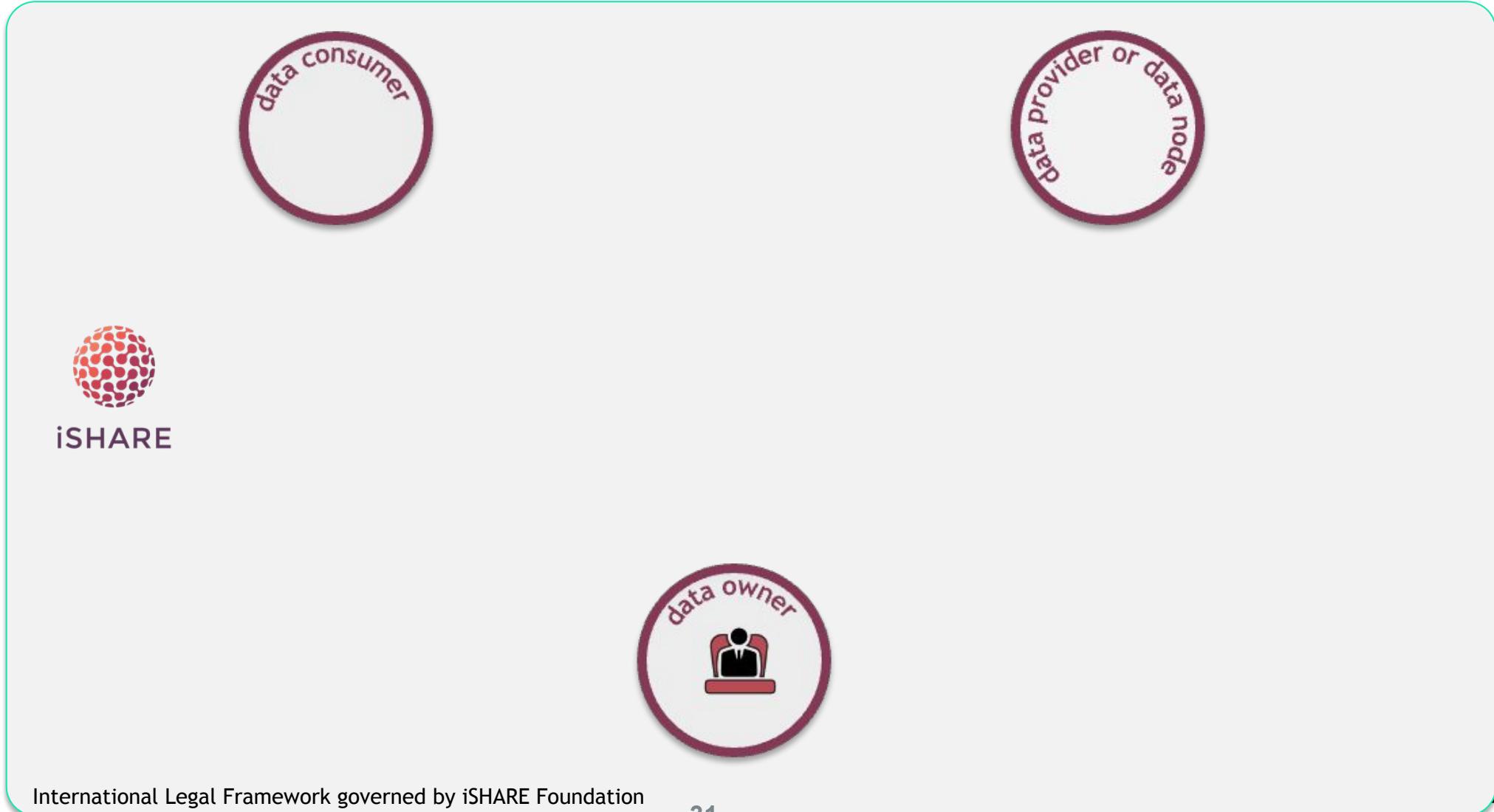
Functions as evidence that a party is
directly or indirectly operating on behalf
of a known party



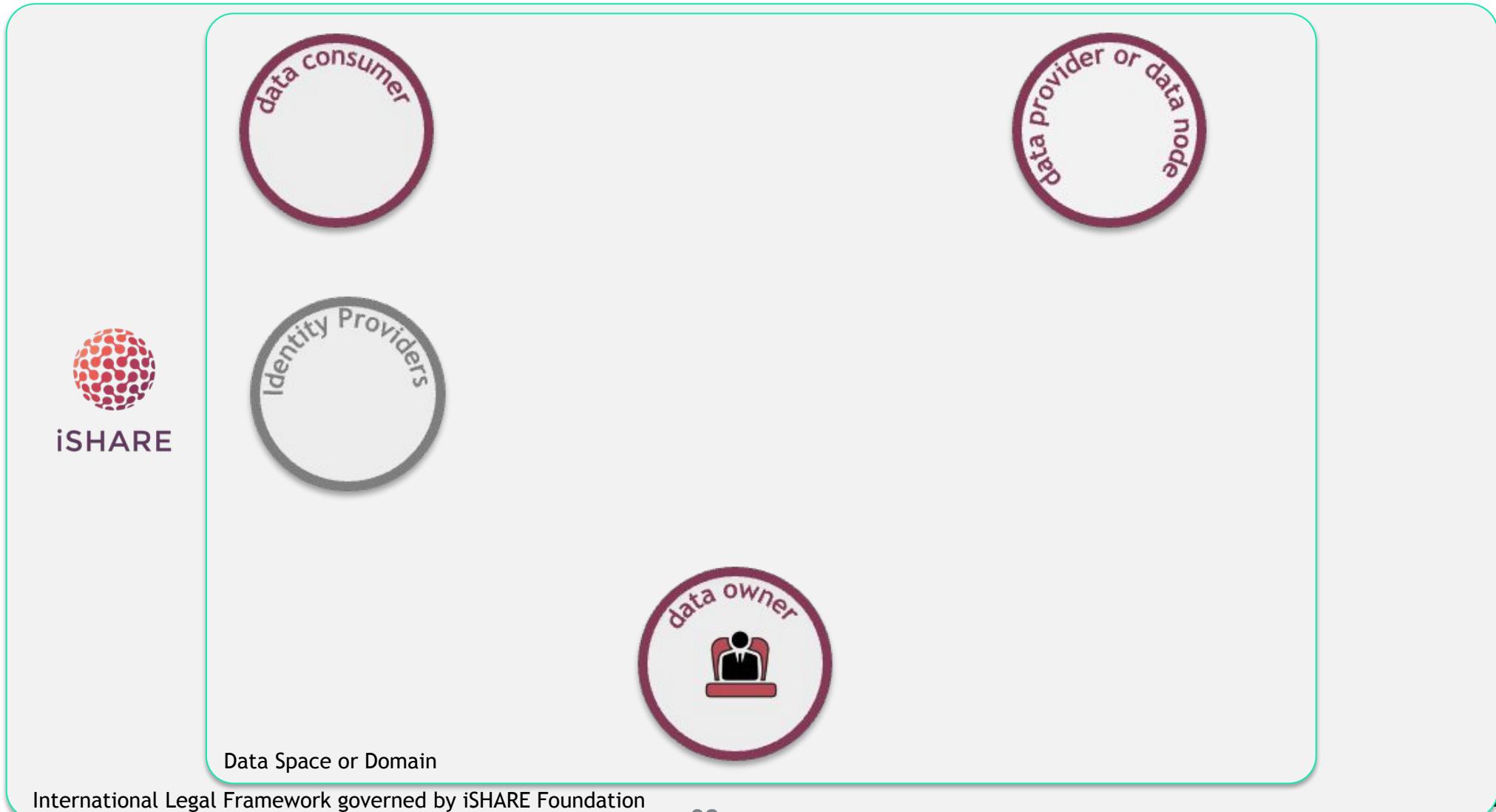
Customer in control

parties are allowed to modify or withdraw access
rights to their data or services, whenever they wish

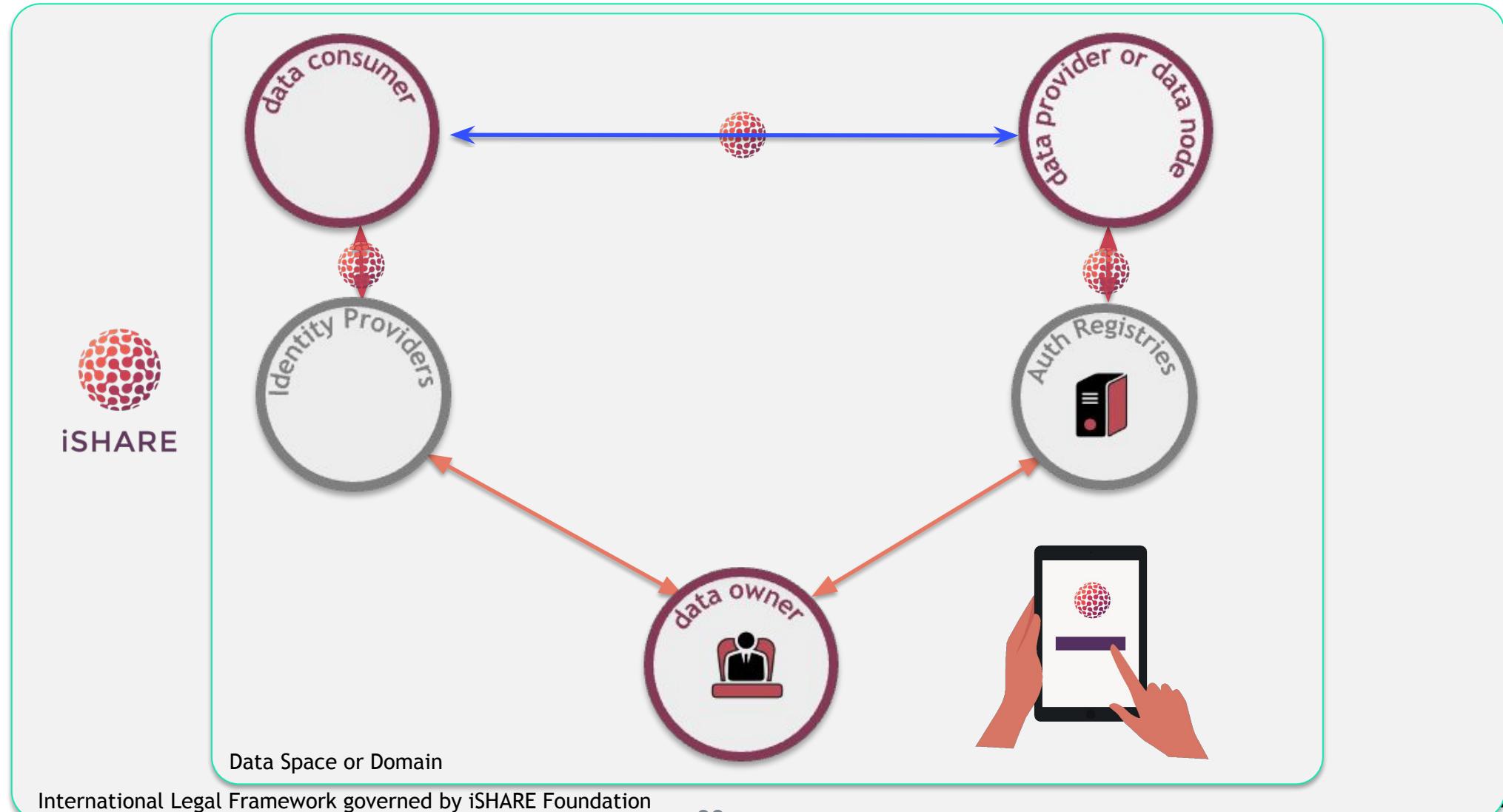
iSHARE is a legal framework providing legal assurance....



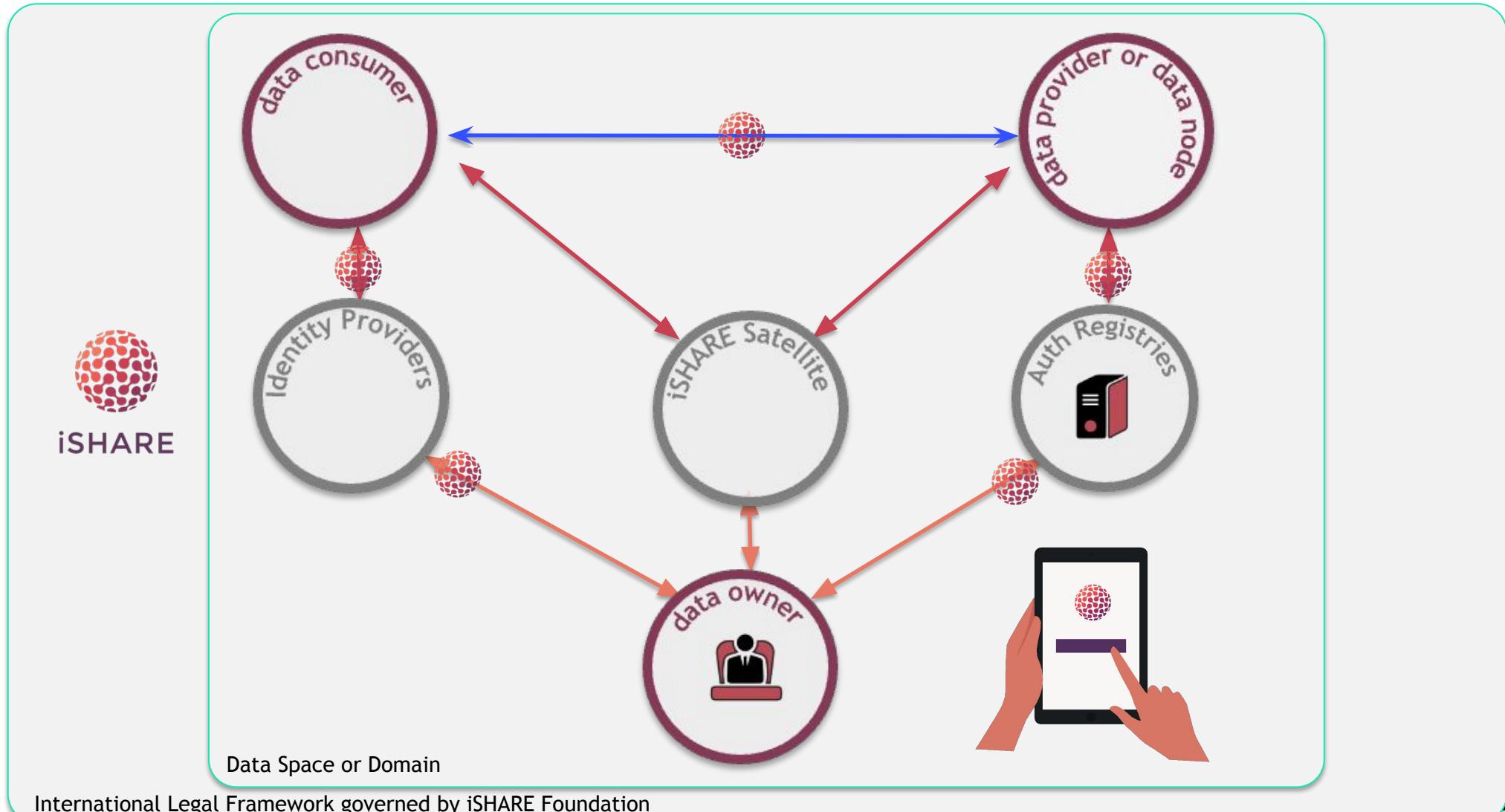
...utilising existing identities that are available in a dataspace...



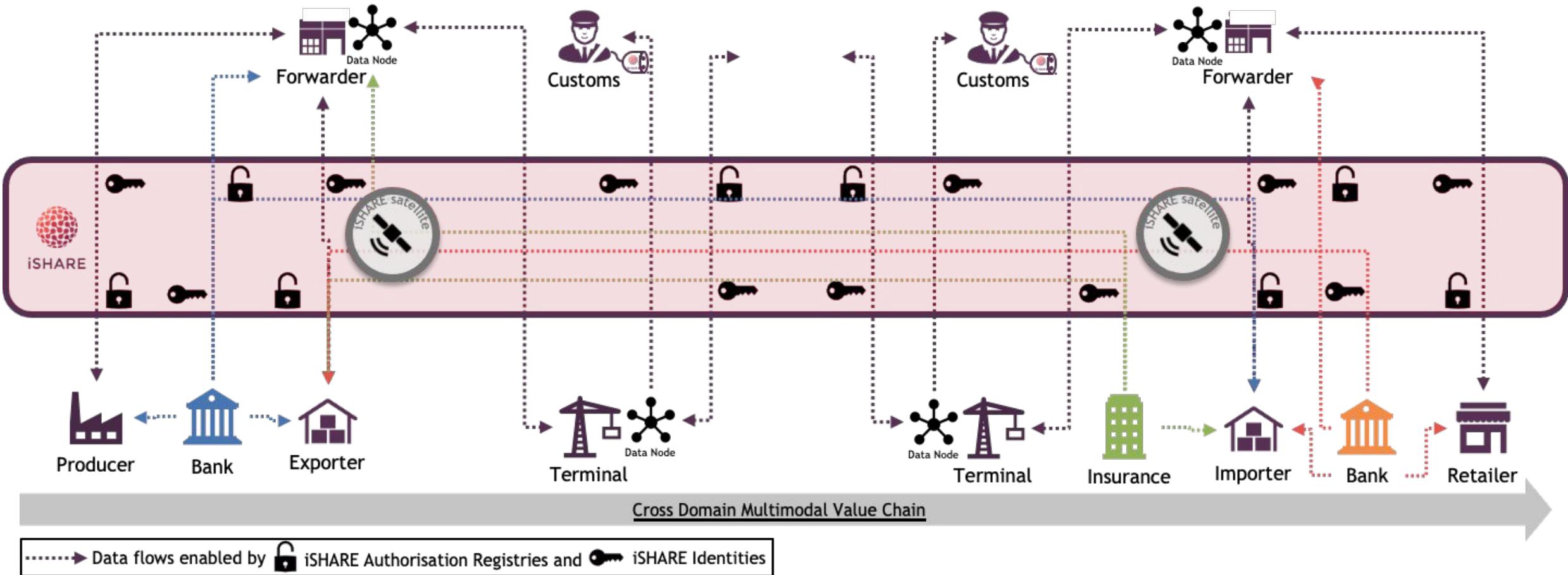
..and iSHARE standards allowing data owners to authorise other to access their data fields



.. and iSHARE satellites guarding the trust in the dataspace.

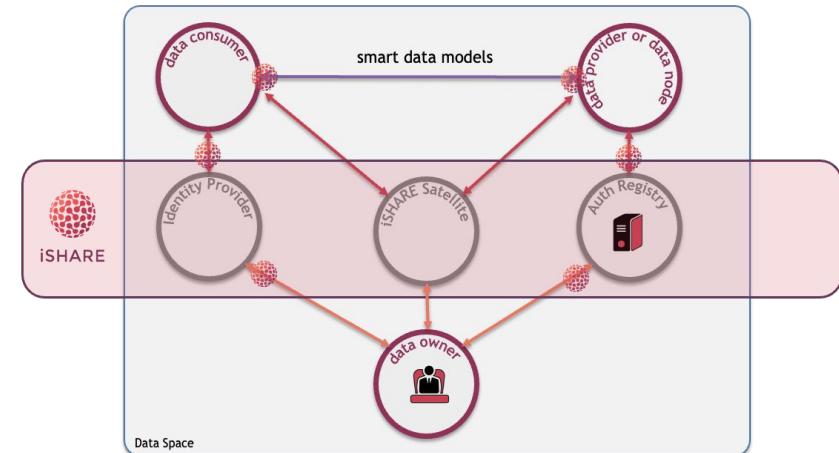


...thus enabling Cross Domain trusted data sharing



Data sovereignty and trust: components

- FIWARE security components comply with standard-based iSHARE specifications and can be hosted locally to each participant for a better performance:
 - FIWARE Keyrock can serve both as Identity Provider and Authorization Registry (XACML PMP server)
 - FIWARE Kong+ plugin can serve as XACML PEP proxy and PDP server
 - when using DID and VC/VP, FIWARE components implementing SIOPv2/OIDC4VP server and wallet functions
- Alternatively, participants may rely on any certified iSHARE Identity Provider and Authorization Registry service
- The certified iSHARE Satellite service acts a Trust Authority for verifying trust of participants



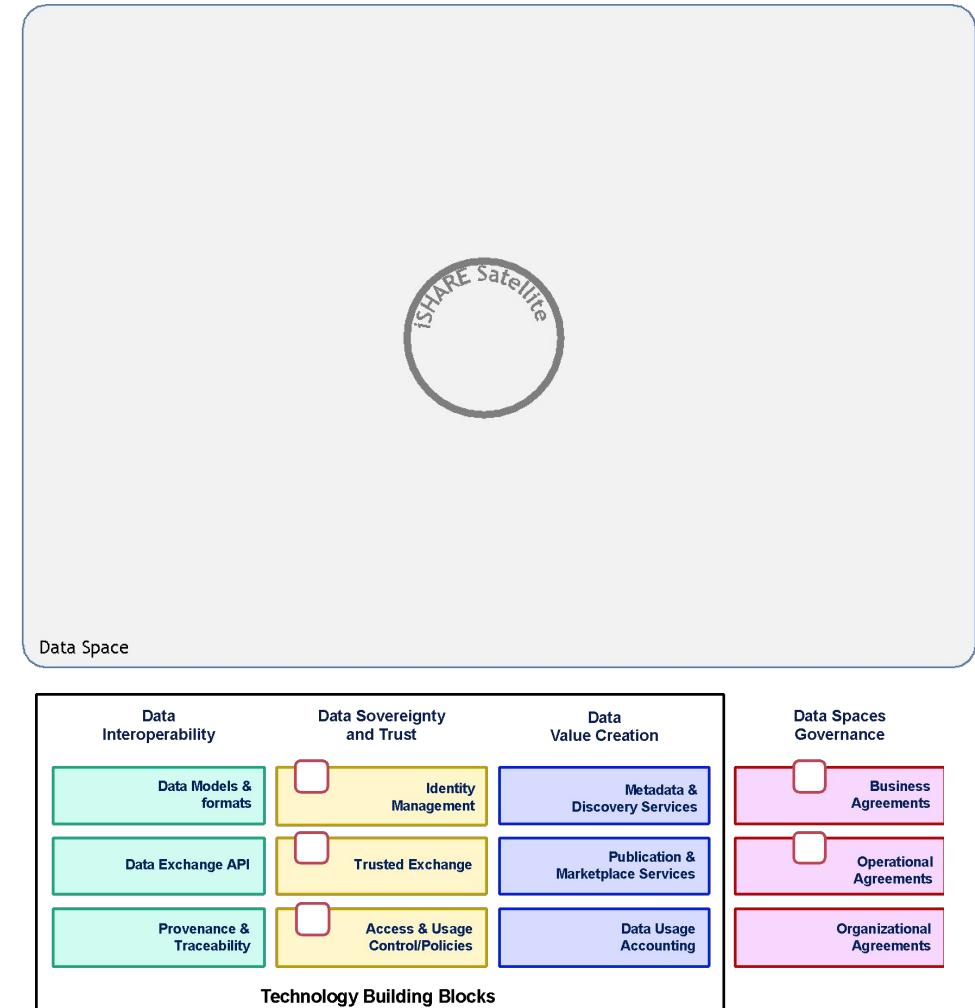
Because iSHARE is an open and federated trust framework and standard ..

...anyone within the trust requirements can setup an iSHARE Satellite to have Data Sovereignty and Trust covered for a new dataspace and/or domain.

iSHARE satellites allow to define operational agreements and governance within the dataspace for

- Data Interoperability
- Data Value Creation
- Governance

Hence, great building block for i4Trust participants setting up new dataspaces!



Why iSHARE

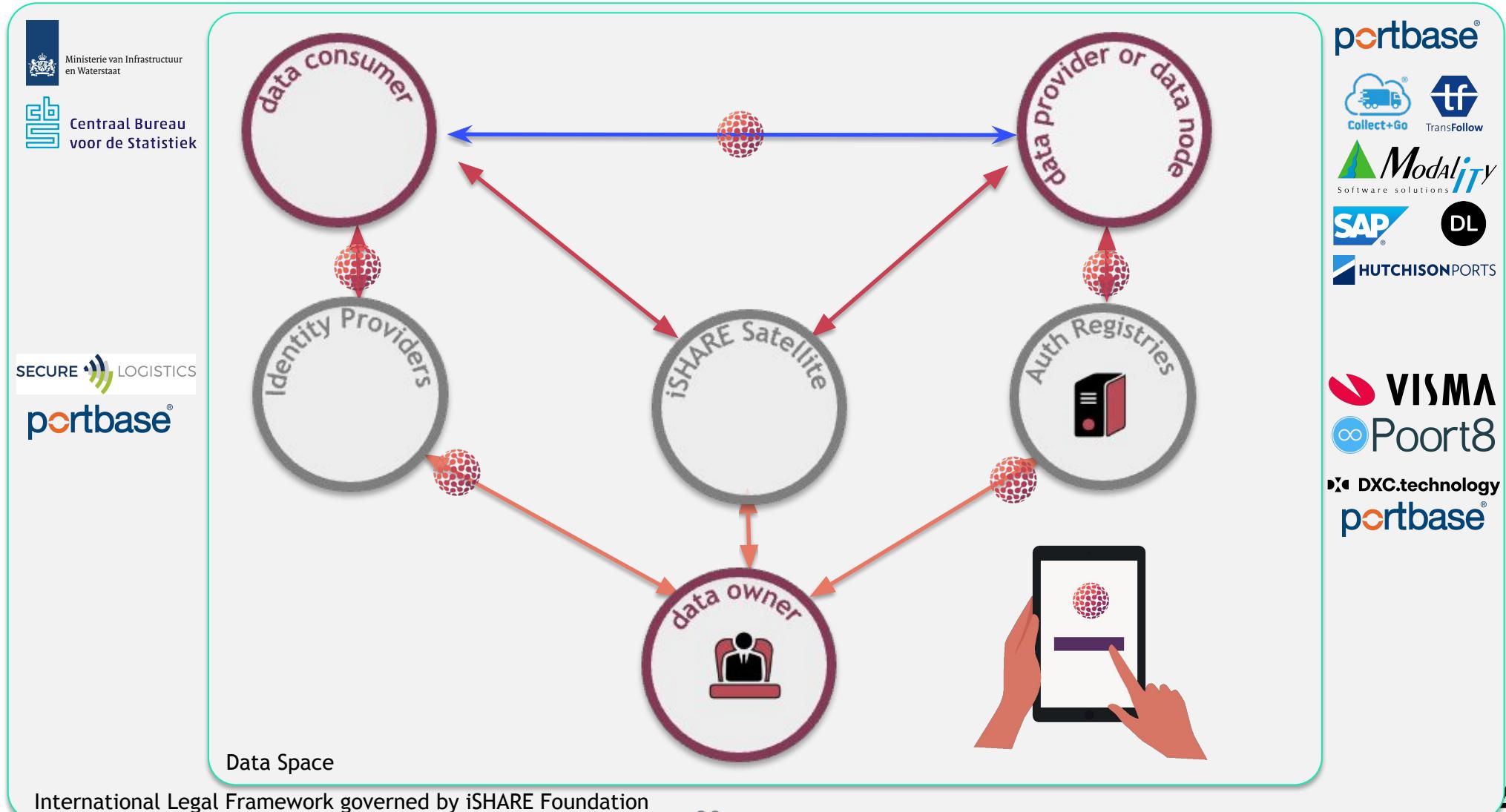
- Data Sovereignty and trust start with data ownership and knowing the actors in the data space.
- iSHARE is the standard for b2b data sharing trust frameworks, allowing cross domain interoperability.
- iSHARE is acknowledged by IDSA as the trust framework and Participant registration (PaRIS)
- Gaia-X and iSHARE signed an agreement to collaborate where the iSHARE trust framework and Gaia-X trust framework interlock and converge together.
- Identities in the framework are based upon CEF building block eIDAS
- The Data Sharing Coalition acknowledged iSHARE as the trust framework for data sharing.
- iSHARE is totally federated and hence encourages more parties to start a data space on this basis.



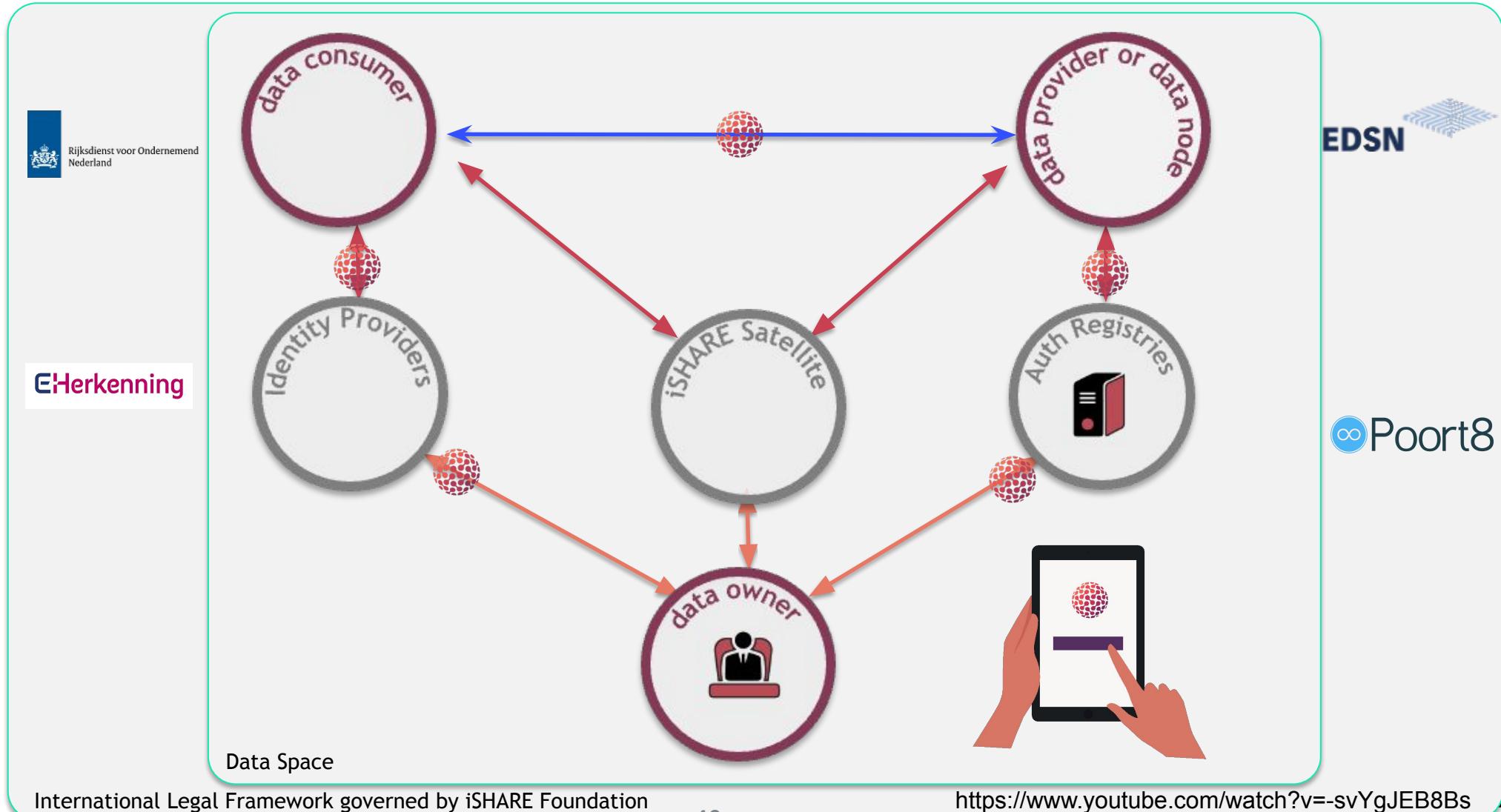
INTERNATIONAL DATA SPACES ASSOCIATION



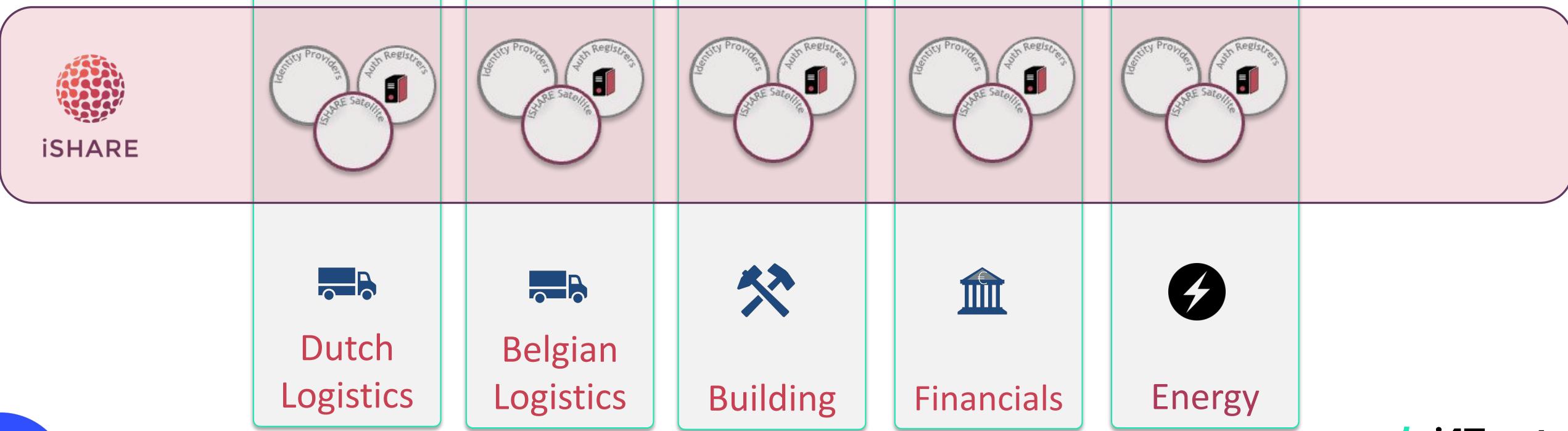
Currently operational in the Dutch Logistics Data space
which in 2021 it already covers the data of over 100.000 companies

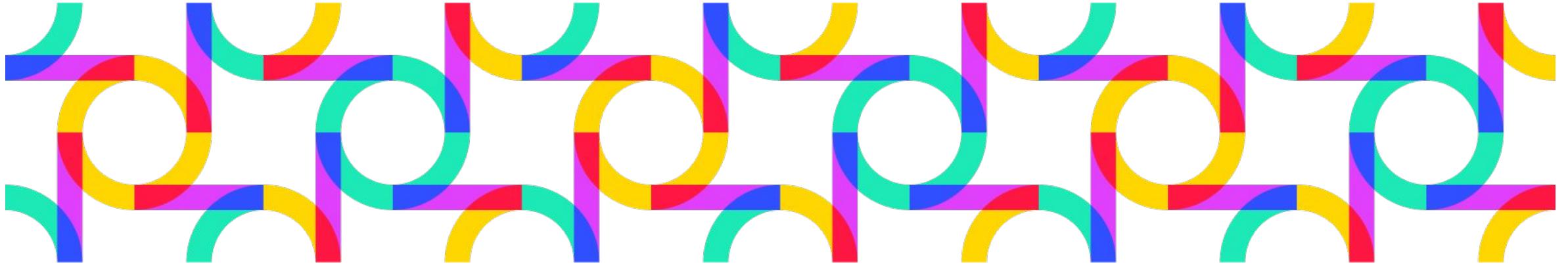


The Dutch Energy Data space it is cover the data of over 1.5mn companies

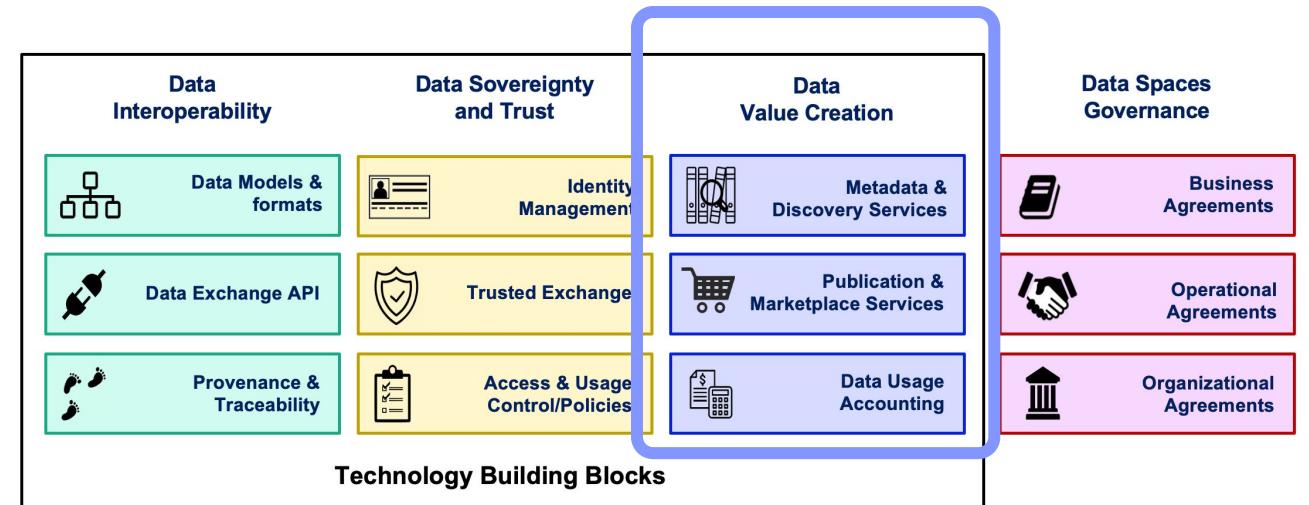


Other data spaces are live or being formed, form a good starting point for experiments



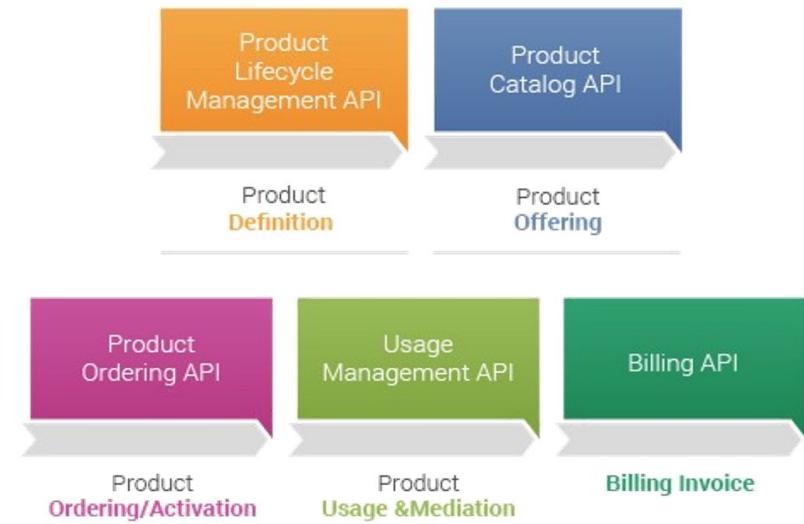
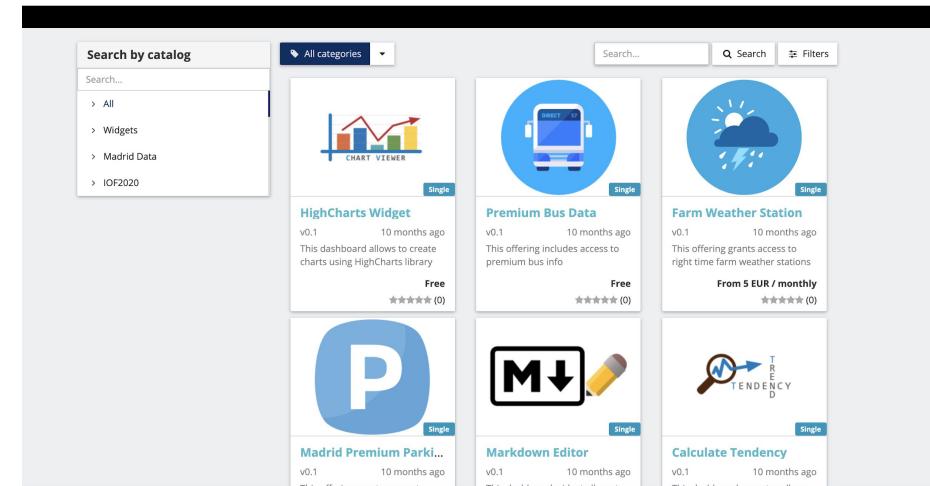


Data Value Creation



Data Marketplace Services

- Data Marketplace Services:
 - Supports the definition of offerings around digital assets (data files, right-time data access/processing services are handled as such)
 - Integrated with Identity Management and Data Usage Policy Management frameworks
 - Relying on TM Forum Business Ecosystem Open APIs to manage lifecycle of digital assets and monetization
 - Data providers can instantiate their own marketplace or rely on global independent Marketplace services
- Advanced pricing and revenue sharing support:
 - Basic models: free, one-time, recurring, pay-per-use
 - Dynamic pricing: fees, discounts
- Product terms and conditions:
 - Licenses, terms and conditions
 - Service Level Agreements (SLAs) metrics



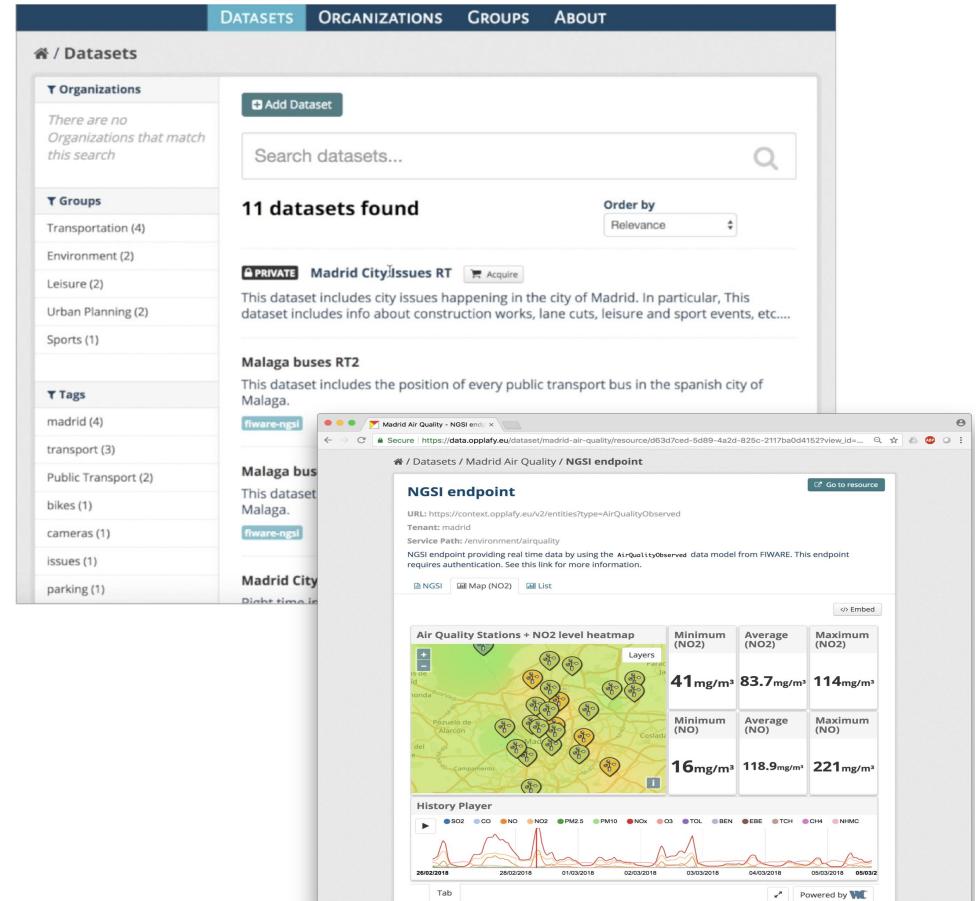
Data Publication and Discovery/Brokering Services

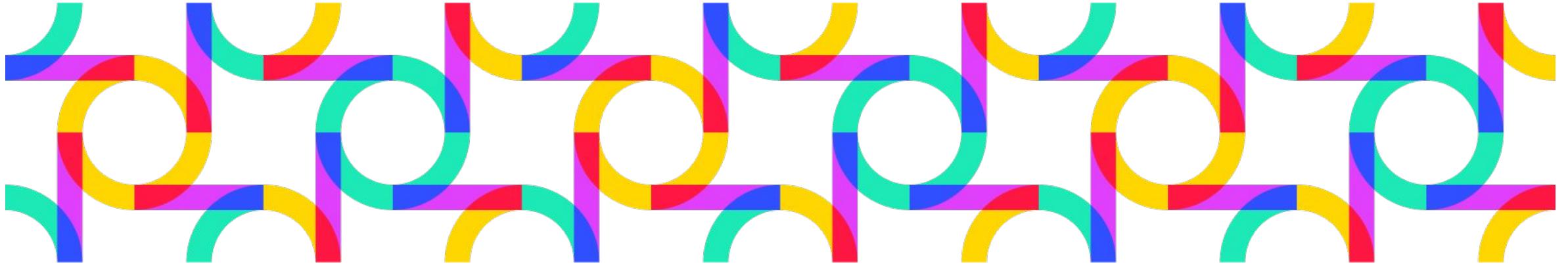
■ Data Publication Services:

- Data portal supporting DCAT-AP and publication of data resources linked to offerings in the Marketplace
- Harvesting of data from Open Data Portals

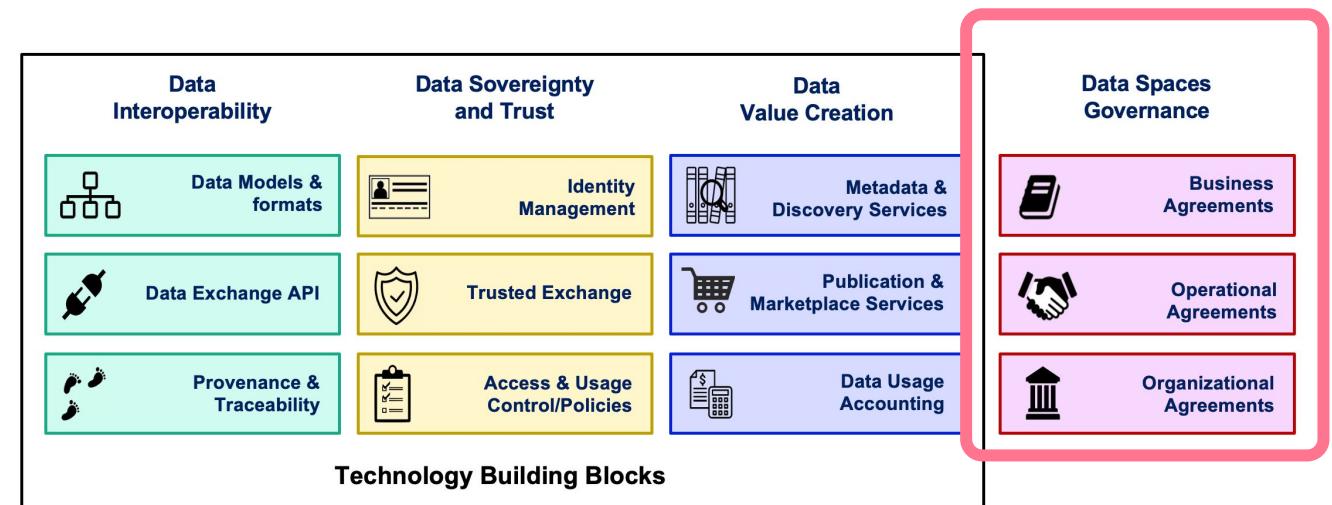
■ Data Discovery/Brokering services:

- Metadata linked to description of data resources based on DCAT-AP standard
- NGSI-LD as basis for discovery of data resources (modeled as entities with DCAT-AP properties)





Data Spaces Governance



Data licenses in iSHARE legal framework create trust about who does what with data after it has been shared

Under iSHARE, it is possible to provide explicit instructions about the **conditions** under which data can be exchanged



iSHARE Participants can hold each other to licenses because they have all signed the same agreement with the iSHARE satellite – thus creating a **network of trust**

For example: *you, as the recipient of my data, may only make use of this data for one month and may NOT share it with others*

iSHARE provides operational agreements, onboarding procedures and service levels for all its certified roles as foundation

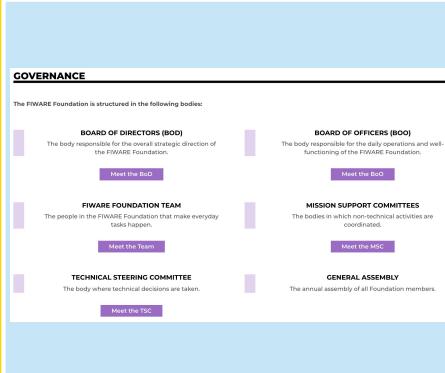
Operational agreements determine how the data space will be operated and what service levels can be expected. This is necessary for parties to trust the ecosystem to commit and be part of.



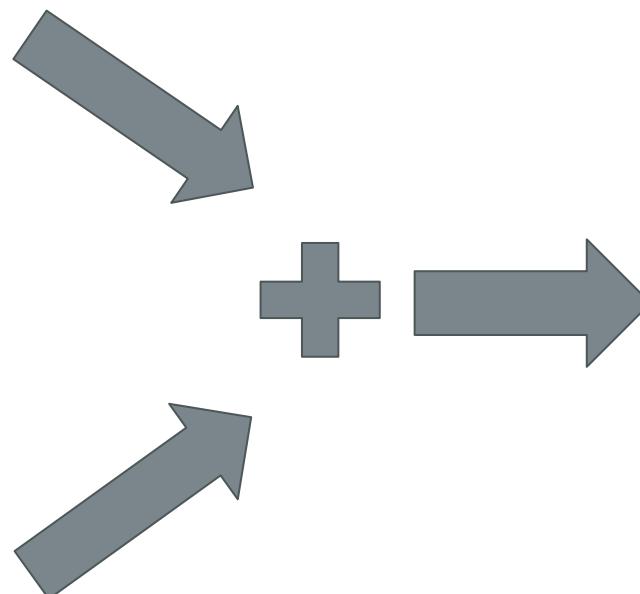
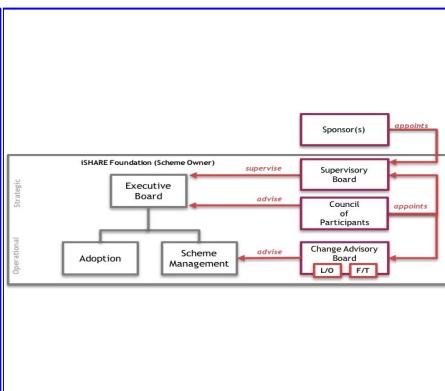
Operational agreements include but are not limited to agreements like which parties are responsible for providing which services and their corresponding levels.

Governance is key for optimum operation and future sustainability of both i4Trust and data spaces it creates

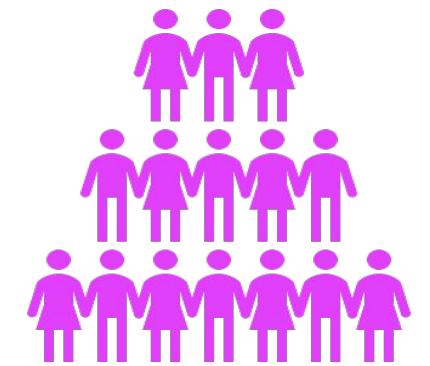
FIWARE governance structure drives strategic and technical direction make sure that the technology evolves to serve their needs

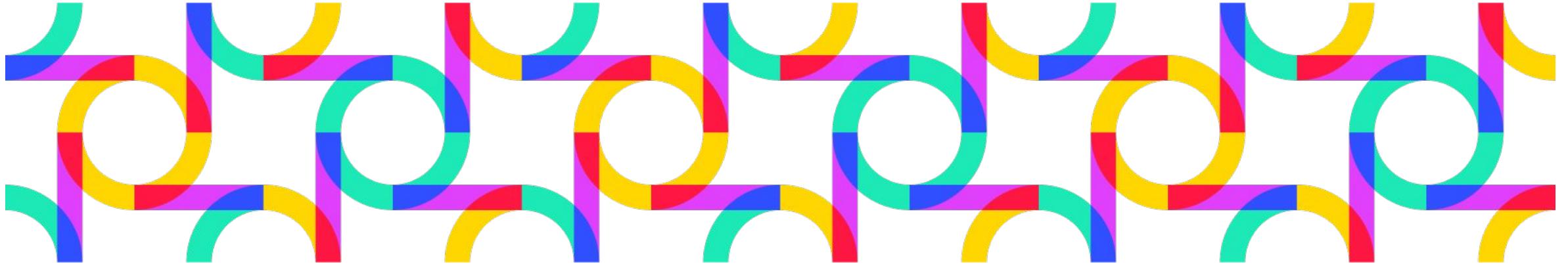


iSHARE has governance structure in place to make sure that it remains operational and trust is preserved in network for its participants



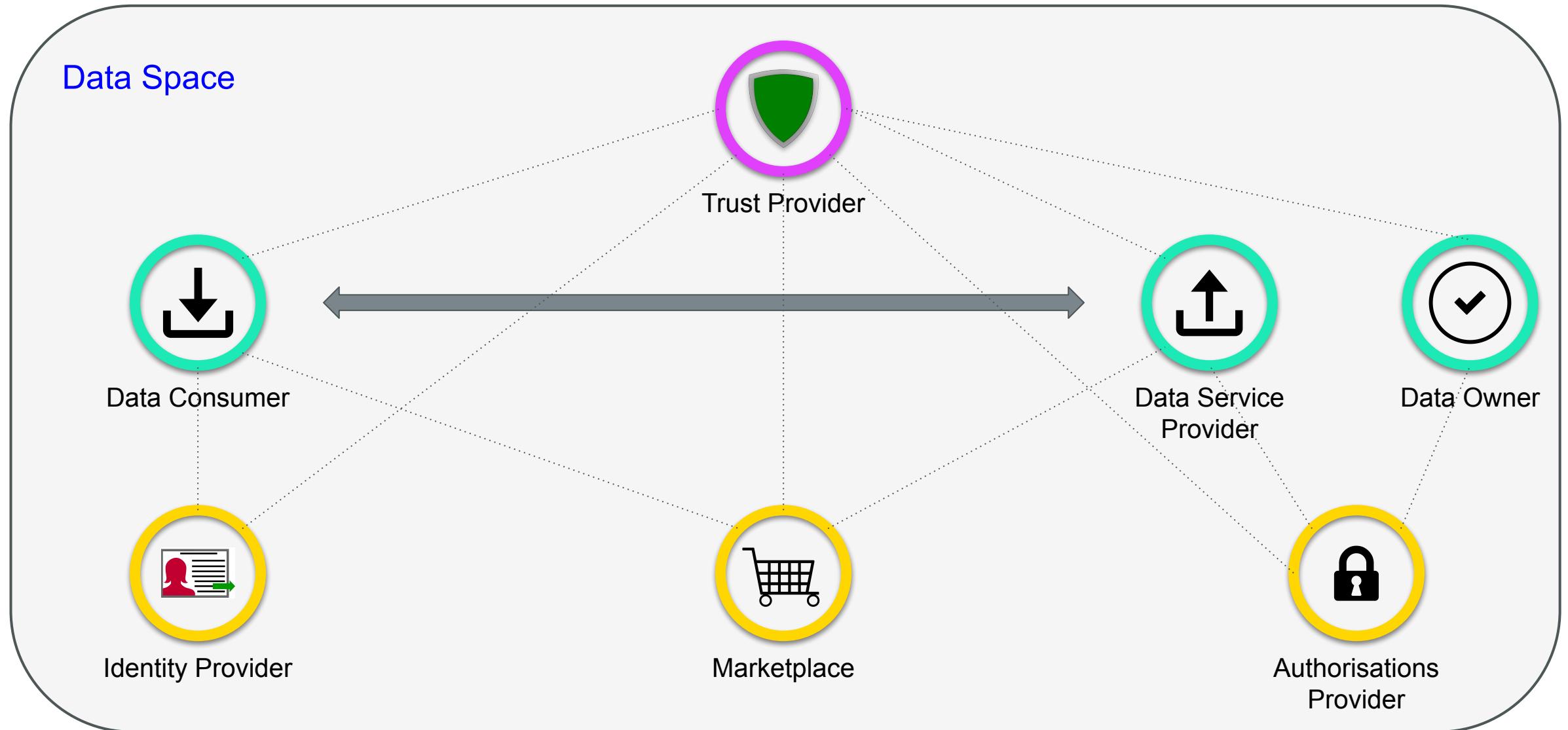
The governance of iSHARE and FIWARE will be key for the i4Trust projects and will be compatible



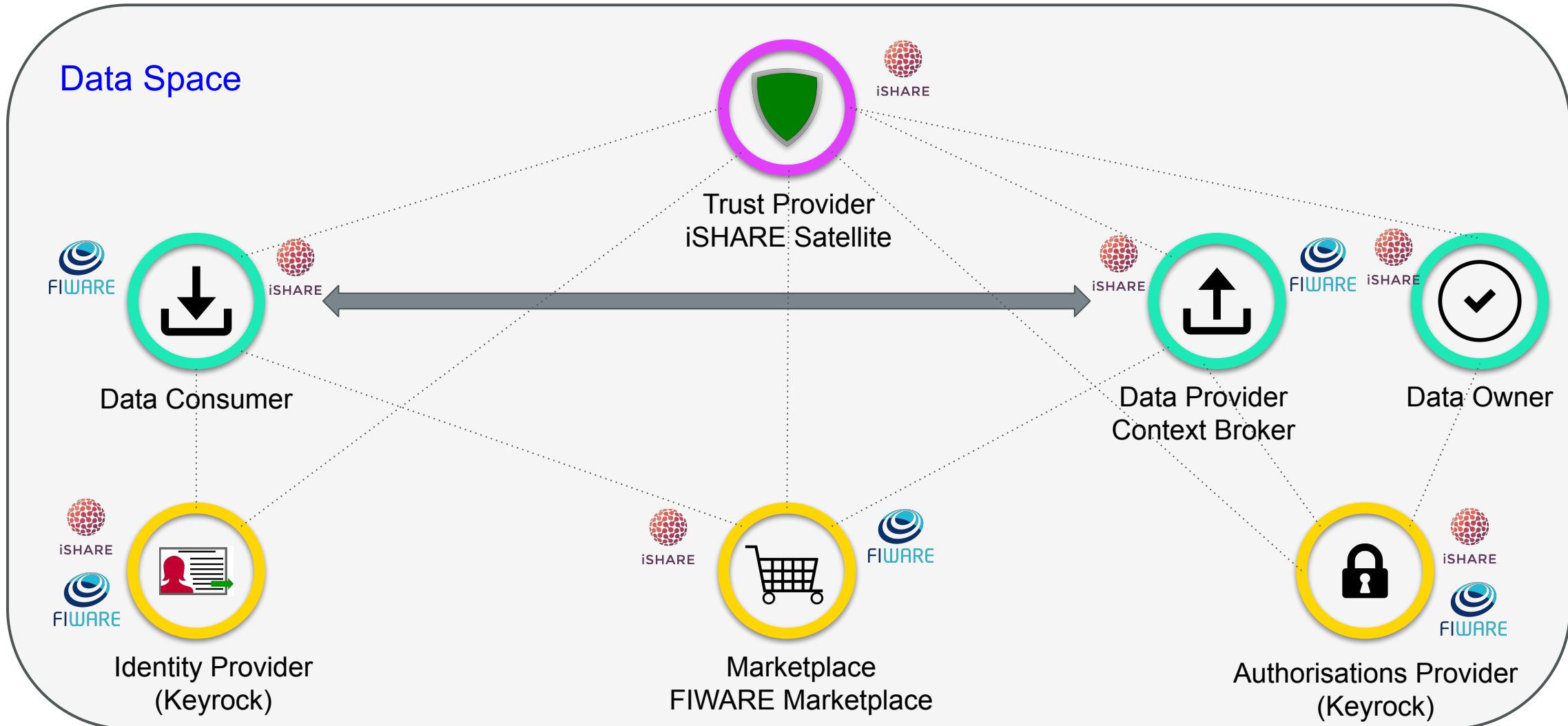


Summary of roles in i4Trust Data Spaces

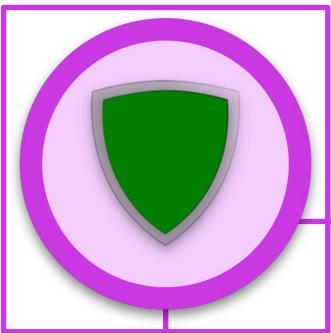
Roles in a Data Space



i4Trust Role model - iSHARE compliant open-source FIWARE components



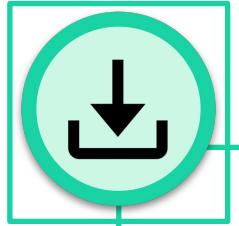
Trust Provider essentially facilitates trust in a data space and acting as a guardian



Trust Provider

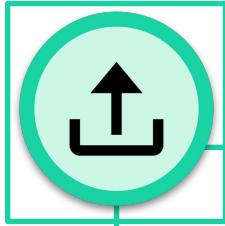
- Every data space needs a trust provider who acts as register of participants of the data space and keeps their status up to date
- They follow predefined and agreed upon procedures to maintain the list of participants
- Since they play important role in a data space it is paramount that trust provider is a neutral party or a party providing this service within the confines of strict agreements on neutrality
- Every data space should have one trust provider at minimum, however, same trust provider organisation can provide service in multiple data spaces
- In a large data space there can be more than one trust provider
- In i4Trust this role will be fulfilled by iSHARE satellites

i4Trust enables data sharing among parties in an effective, trusted and secure way



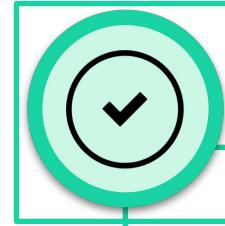
Data Consumer

- Data Consumer is a role played by organisation or a person who is interested in data at other party either for its own use or to provide services to the data owner/data provider
- It needs to handle data it receives in accordance to the conditions set by the data owner



Data Service Provider

- Data Service Provider is role played by organisation who provide data via means of service or portal
- Data Service Provider relies on data owner to provide with authorizations and usage rights for the data services provided to data consumer



Data Owner

- Data Owner is the party who has right over the data in given context and time
- It provides with authorizations, so data consumer can get access to data
- In i4Trust, data owner also can specify the conditions under which data is shared, thereby providing it with data sovereignty

Identity Provider role is designed for users to reuse their existing identity provider at various service/data providers

Identity Provider

- The Identity Provider role deals with the human identities with varying level of assurances, as defined in eIDAS framework, to support various use cases
- Depending on the criticality of the data, appropriate level of assurance for an identity can be requested
- iSHARE specifications are designed such that service/data provider does not necessarily need to pre-register an identity provider as it can verify if it is an iSHARE certified provider from iSHARE satellite
- Keyrock Identity Provider software from FIWARE already complies with iSHARE specifications and is available as open source



Authorisations Provider is a role which can be played by any organization as defined in iSHARE



Authorisations Provider

- The role only defines the interface for asking about authorizations and how the response should look like.
- The authorizations can be determined by using a policy database and/or transactional data from backend systems and/or existing authorizations from LDAP/AD or a combination thereof.
- Keyrock in FIWARE will provide a policy database to define policies for authorizations which can be combined with other sources to determine authorization during runtime.

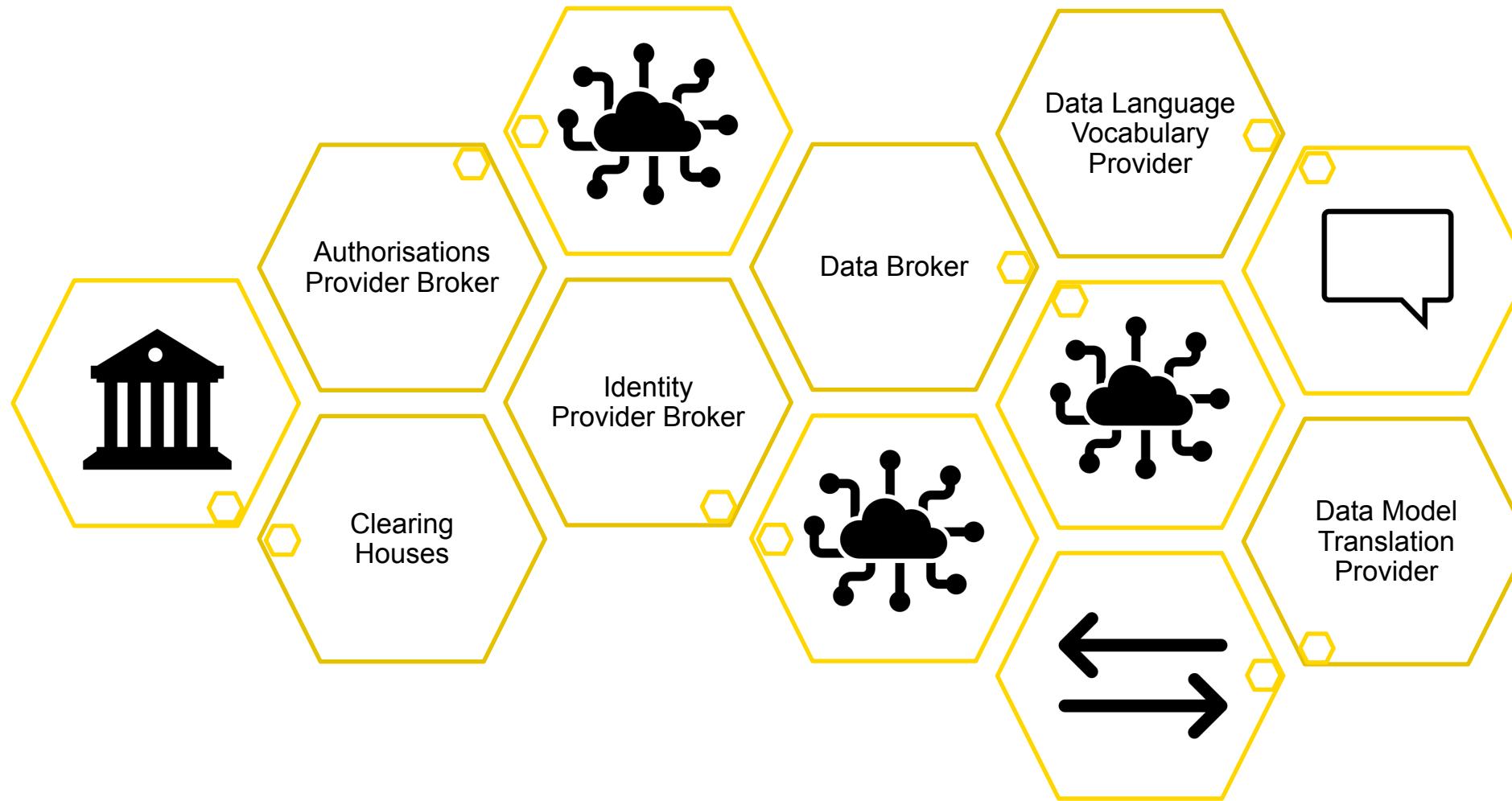
Marketplace allows discovery and monetization of data and services in a data space

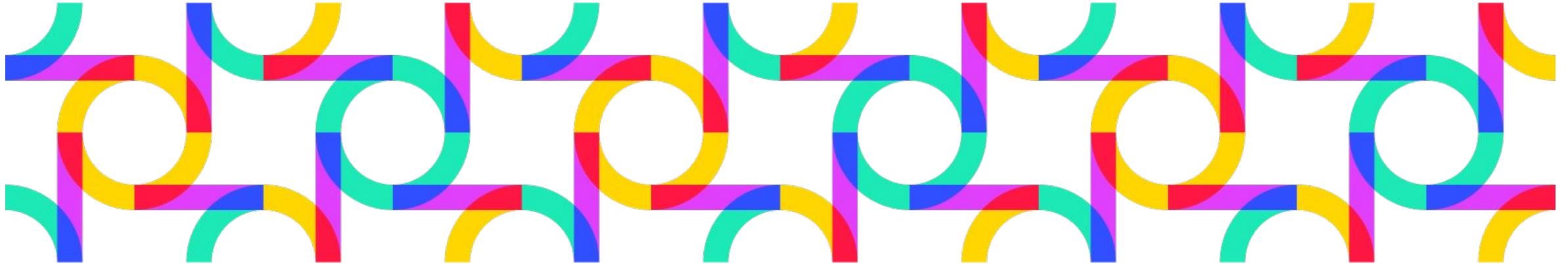


Marketplace

- The Marketplace provided by FIWARE technology allows data providers and data owners to list data and/or services to offer which data consumers can buy/subscribe to.
- On the other hand, data consumers can find offerings of relevant data from multiple data providers/owners.
- Besides, marketplace can act as clearing house and broker when required between the parties exchanging data so that data sharing transactions can be logged at 3rd party for auditing and billing purposes.

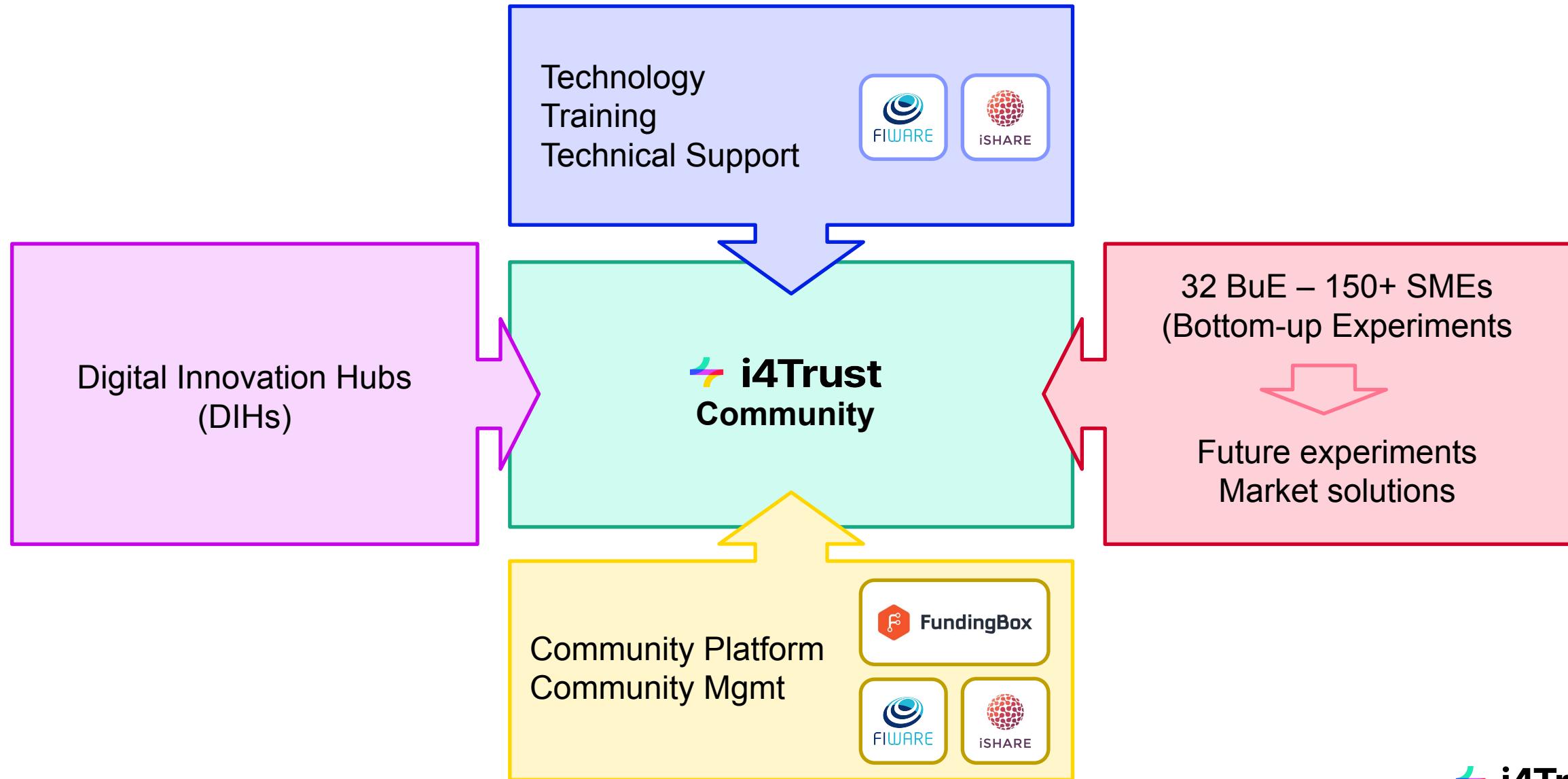
Additionally, other service providers can provide specific services within a data space



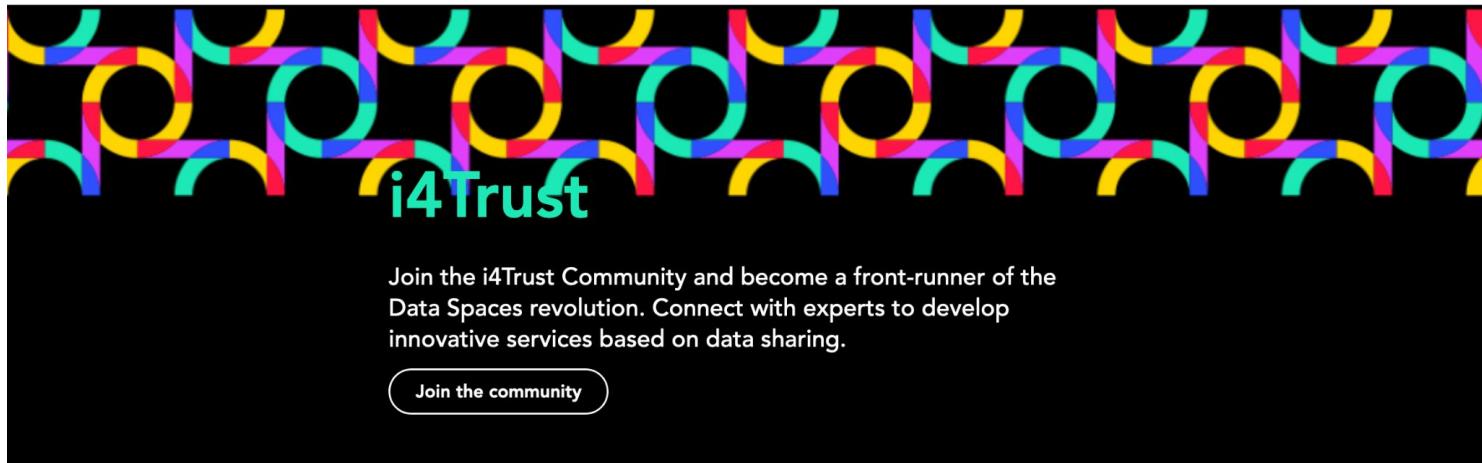


i4Trust: Going beyond technology

Going beyond the technology: a vibrant Community



Join the i4Trust Community! - <https://spaces.fundingbox.com/c/i4trust>



Browse by category

[i4Trust Helpdesk](#)[i4Trust Updates](#)[DIHs Working Group](#)

Community Spaces

Open Call Helpdesk

Last message: an hour ago

Support chat for i4Trust Open Call's applicants

News & Events

Last message: 2 days ago

Follow the latest news and events!

i4Trust Helpdesk

Last message: 6 days ago

Support space to ask questions about i4Trust

Introduce yourself

Last message: a month ago

Tell us who you are and what are you searching for. We are happy to meet you!

Meet the partners

Here you can check all the partners involved in the i4Trust project, their roles, and their expertise.

i4Trust Community: DIHs Working Group

Profile of the
DIHs joining
i4Trust

DIHs Profile

DIHs in S3 (EC Catalogue):

- ✓ Appoint Local Experts in Data Sharing
- ✓ Appoint Ambassadors
- ✓ Participate in the Open Calls

X <https://s3platform.jrc.ec.europa.eu/digital-innovation-hubs-tool>

DIHs out of S3 (EC Catalogue):

- ✓ DIHNET.EU JRC Catalogue Guidelines
- ✓ S3 Platform

X <https://dihnet-community.fundingbox.com/>

X <https://s3platform.jrc.ec.europa.eu/digital-innovation-hubs-tool>

What benefits will DIHs joining i4Trust gain?

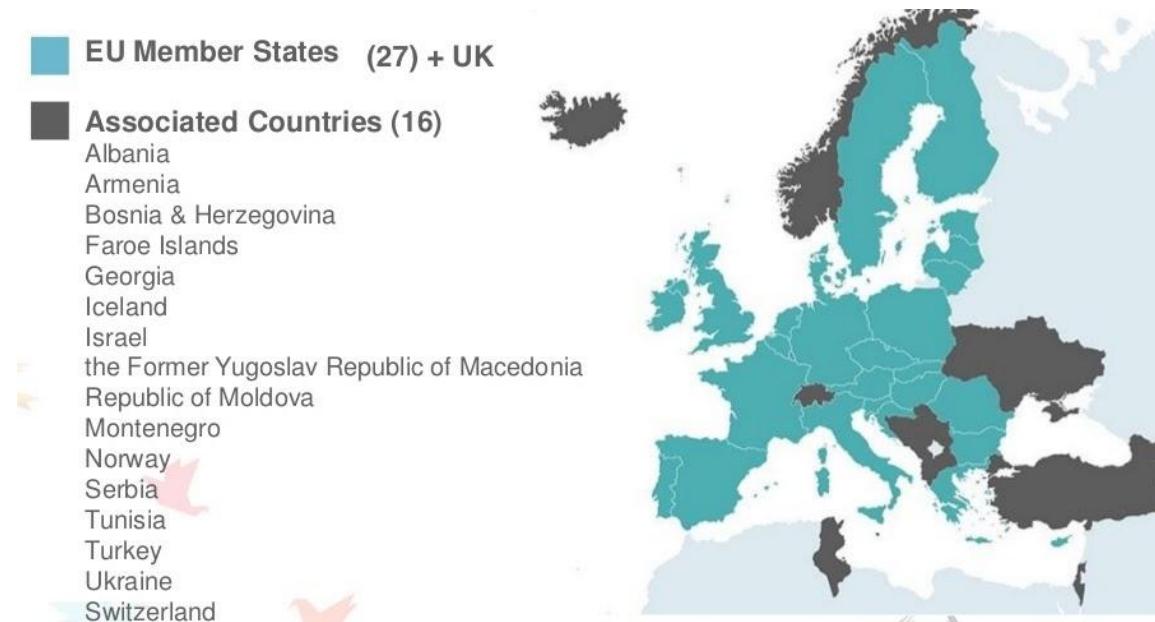
- i4Trust allows to materialize the concept of Data Spaces: **DIHs joining will stay at the forefront of the Data Spaces revolution!**
- Since the i4Trust local expert of a DIH will get certified as a [FIWARE expert](#), that will bring quite a number of advantages beyond participation in the i4Trust Community:
 - The DIH would be automatically validated if it wish to be validated as an entity able to provide [FIWARE Training and Coaching Services](#) as well as [FIWARE Technical Consultancy and Support Services](#) in the [FIWARE Marketplace](#).
 - If the DIH decides to join the network of [FIWARE iHubs](#), it will be entitled to validate products to be listed in the [FIWARE Marketplace](#). Note that becoming a FIWARE iHub will bring notable benefits in terms of revenue streams (check out the [FIWARE iHub brochure](#))
- DIHs trained on iSHARE will also be eligible to become [iSHARE implementation partners](#). Additionally, DIHs could also play one of the iSHARE roles like, iSHARE satellite or iSHARE Authorisation Registry, if they like to.



i4Trust Open Calls

What experiments we have selected?

- Consortia composed by **SMEs**/slightly bigger companies and **DIHs** registered in any of the following countries:
 - Member States of the European Union
 - Associated Countries to H2020
 - The United Kingdom
- Minimum of 4 entities per proposal are compulsory: 3 SMEs/slightly bigger companies + 1 DIH.



i4Trust Open Calls



Which kind of experiments have we been looking for?

- Those implementing effective data sharing among companies in one or more cross-value chains
- Real-life challenges solved through data sharing with business and/or societal impact
- Implementing FIWARE+iSHARE technology framework to solve specific challenges
- All requirements are listed in the Open Call and evaluation criteria in the Guide for Applicants
- DIHs joining i4Trust Community and engaged with a certified local expert will be listed as DIHs that interested parties may contact to get support and, eventually, incorporate in their consortium
- DIHs can use i4Trust channels to promote concrete local challenges and application domains

1st Open Call results

SMART AGRIFOOD

Agri4Trust

[Discover more ↗](#)

SMART AGRIFOOD

Agrimed

[Discover more ↗](#)

SMART AGRIFOOD

AgroTrust

[Discover more ↗](#)

SMART ENVIRONMENT

CO2-Mute

[Discover more ↗](#)

SMART LOGISTICS

CollMi

[Discover more ↗](#)

SMART LOGISTICS

Colodas

[Discover more ↗](#)

1st Open Call results

The image displays six cards arranged in two rows of three, each representing a different project from the 1st Open Call results. The projects are: SMART ENERGY (DSWEU), SMART LOGISTICS (DV4CUL), SMART AGRIFOOD (eV2W), SMART AGRIFOOD (Farm4All), and SMART PORTS (iGreenPort). Each card features a unique logo composed of blue and white lines and dots, followed by the project name, acronym, and a 'Discover more' link.

SMART ENERGY DSWEU Discover more ↗	SMART LOGISTICS DV4CUL Discover more ↗	SMART AGRIFOOD eV2W Discover more ↗
SMART AGRIFOOD Farm4All Discover more ↗	SMART PORTS iGreenPort Discover more ↗	

i4Trust 2nd Open Call timeline

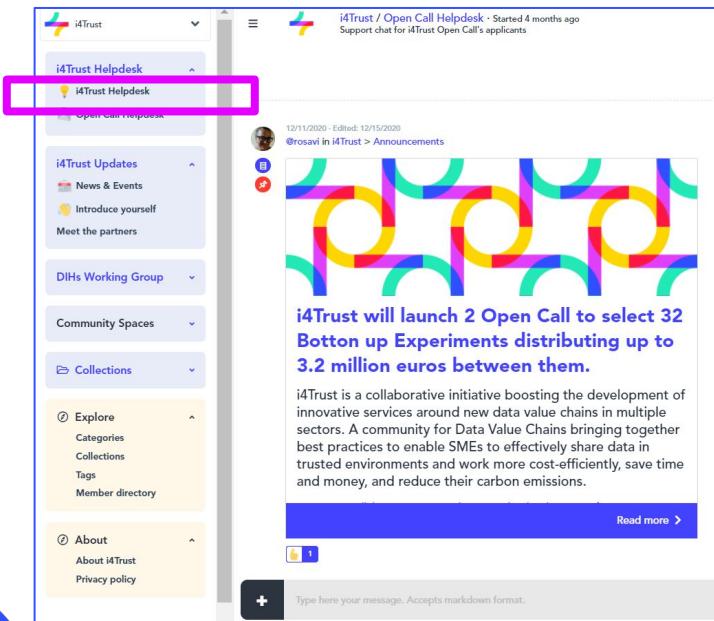
May to
September
2022

September to
October 2022

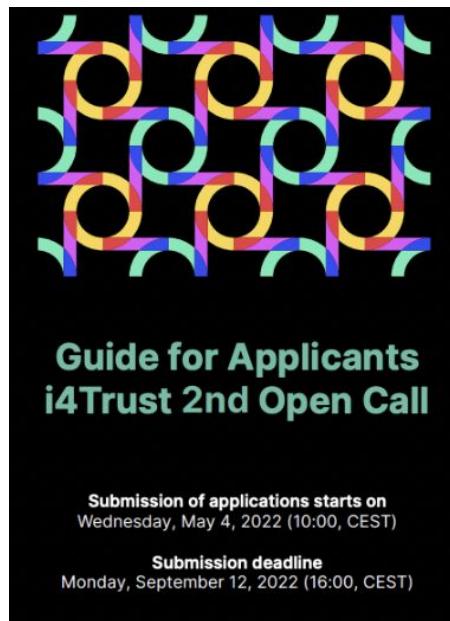
November to
December 2022

January to
September 2023

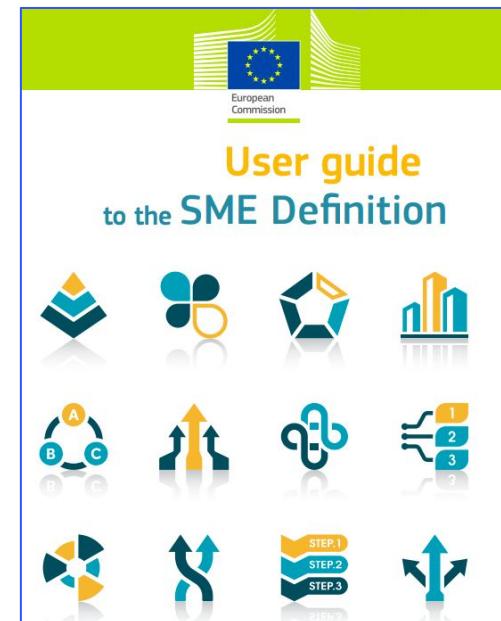
Proposal submission



Evaluation process

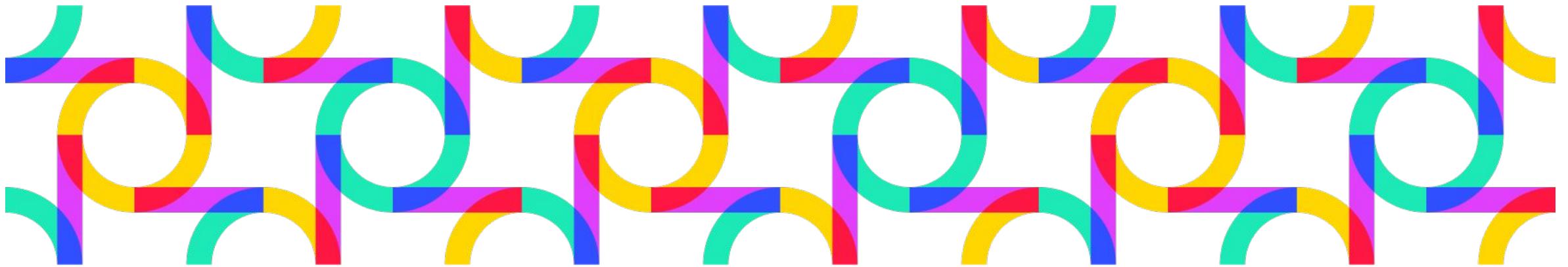


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i4Trust support programme





Closing remarks

i4Trust – why to join

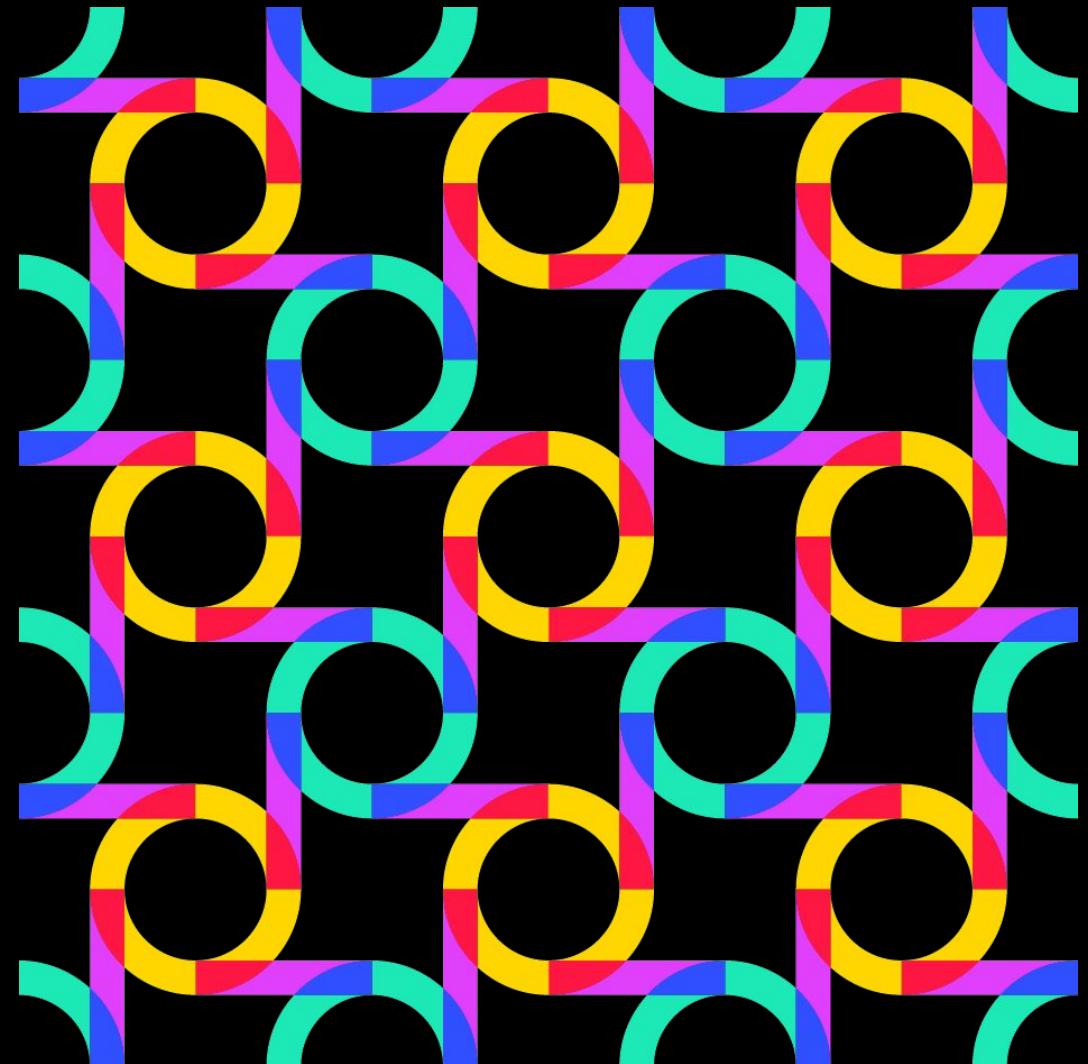
- Level of maturity of iSHARE and FIWARE building blocks
- Existing ecosystems around iSHARE and FIWARE
 - iSHARE:
 - 5 K+ participants managing data
 - 45 K+ identities sharing that data
 - FIWARE:
 - 130+ organization members, 400+ individual members
 - 150+ product offerings, 300+ cities adopting FIWARE
 - growing market successes in other sectors
- Strategic alignment with EC Digital program
- 1st available implementation of framework aligned with first DSBA Technology Convergence results
- Opportunity to join a vibrant Community where to share knowledge and best-practices
- Opportunity to become FIWARE iHub and iSHARE partner
- Be recognized as a front-runner !!



Thank you!

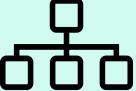
Follow @i4Trust on Twitter
Visit <https://i4Trust.org>

Contact of coordinator: juanjose.hierro@fiware.org

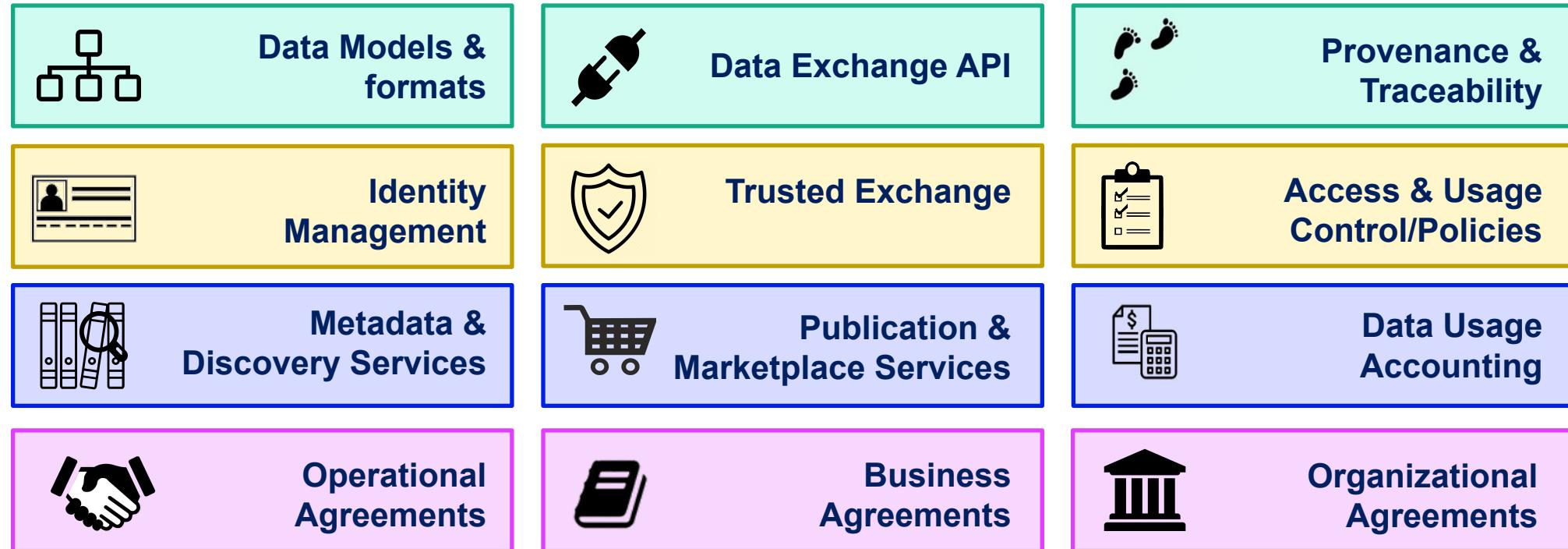


i4Trust has received funding from the European Union's Horizon 2020 research and innovation programme under the Grant Agreement no 951975.

Data Spaces building blocks (horizontal layout)

Level Playing Field	 Data Models & formats	 Data Exchange API	 Provenance & Traceability
Data Sovereignty	 Identity Management	 Trusted Exchange	 Access & Usage Control/Policies
Data as Economic Asset	 Metadata & Discovery Services	 Publication & Marketplace Services	 Data Usage Accounting
Public-Private Governance	 Operation Agreements	 Business Agreements	 Organizational Agreements

Data Spaces building blocks (horizontal layout)



Data Spaces building blocks (horizontal layout)

