

Gaia-X *celerate* SUMMIT 2023

Alicante, Spain

9 & 10 November

In partnership with **gaia-x**

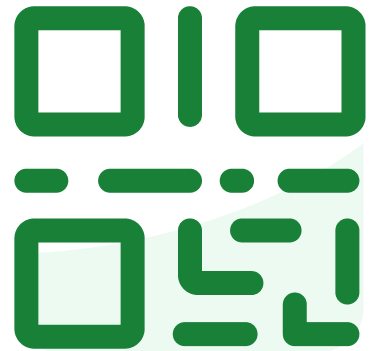
 Hub Spain



gaia-x 

#GaiaXSummit23

slido



**Join at slido.com
#1450795**

ⓘ Start presenting to display the joining instructions on this slide.

Gaia-X benefits for users

1

“Build and implement common rules in order to be able to exchange data in a trusted way.”

2

“Accelerate sovereign data driven EcoSystems.”

3

“Enable global data driven value chains through federated trust and interoperability.”

Gaia-X benefits for providers

1

“Expand reach, visibility and market share by delivering services which are certified as compliant with Gaia-X.”

2

“Become one stop shop as a GXDCH Provider, for your existing and new customers utilizing the Gaia-X EcoSystem.”

3

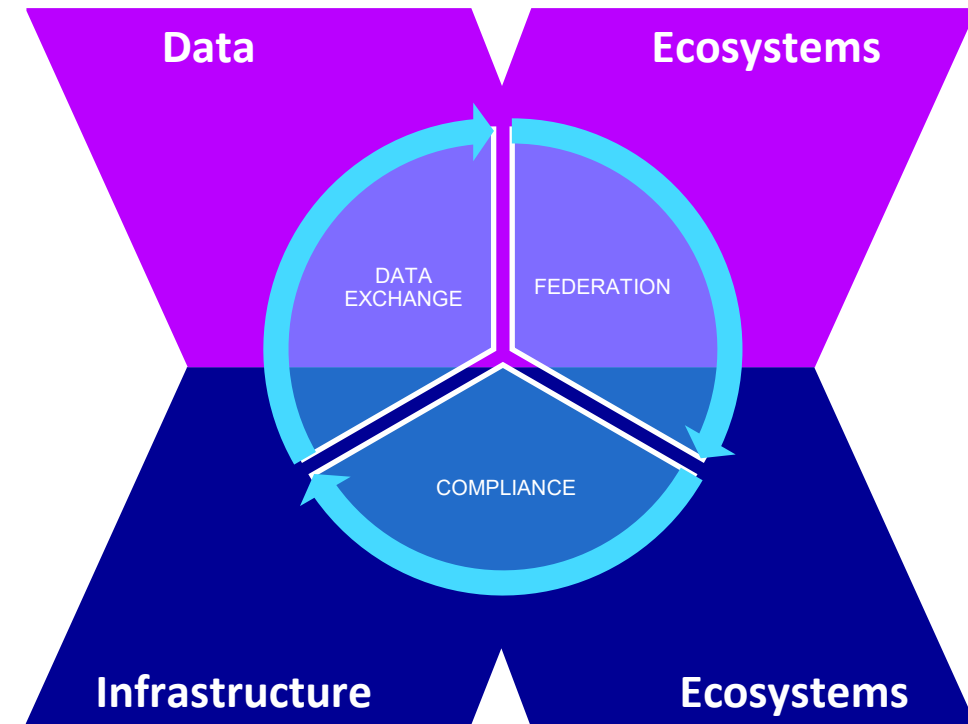
“Deliver DataSpace as a Service (DSaaS) to enable fast, cost efficient, transparent and reliable data driven Business Application.”

What you will see in this session

1 First user experience: *“How to get started!”*

2 SME’s game changer: *“Easily advertise your services and data products in the Gaia-X catalogues.”*

3 *“Accelerate your business with supervised/automated contract negotiation based on Gaia-X Compliance.”*





Who are you ?

① Start presenting to display the poll results on this slide.

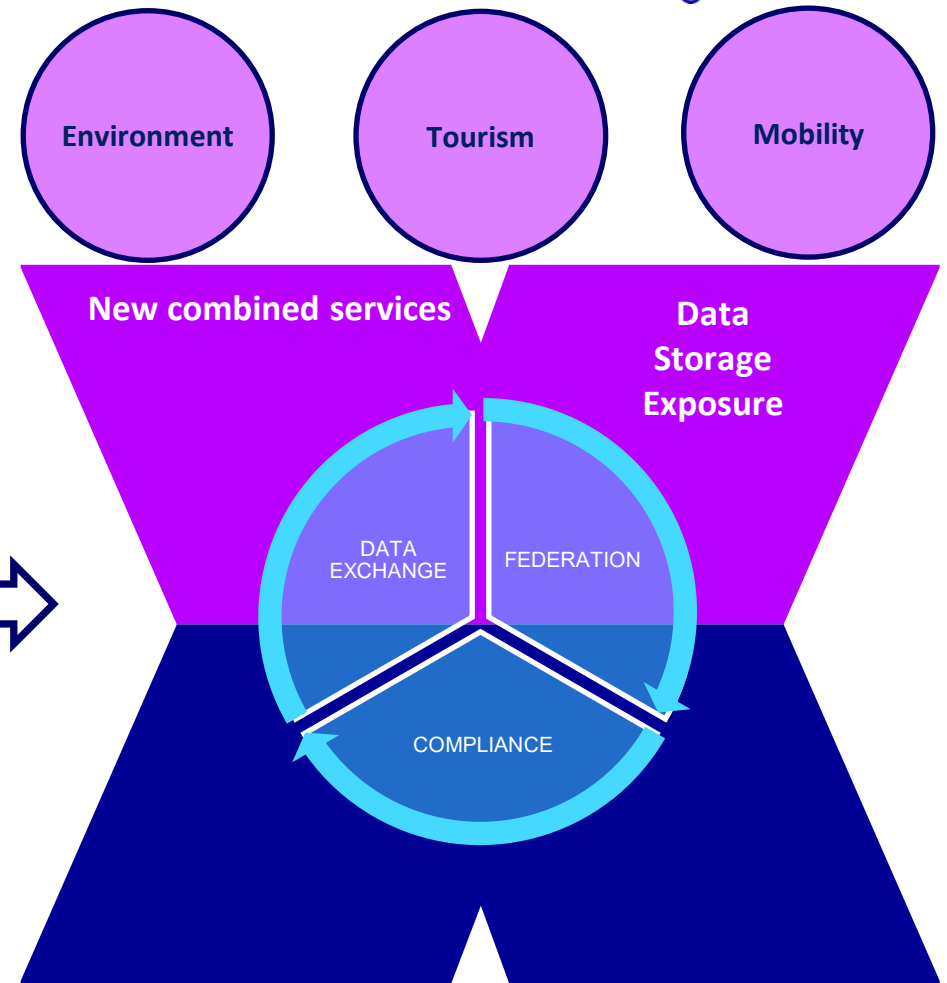
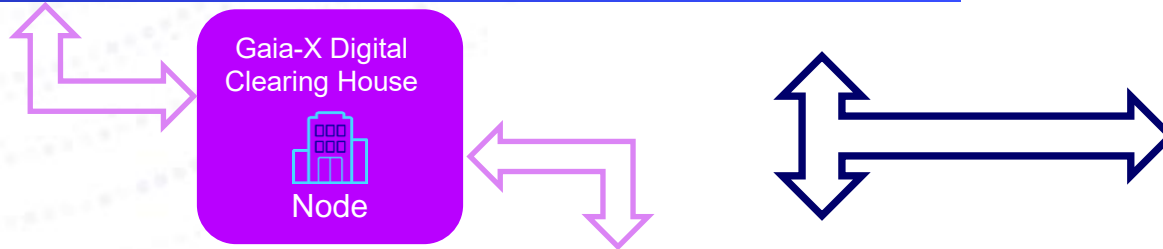
Remember Gaia-X Summit Paris 2022?



Dufour Storage is a company that has been offering a data storage service for years. Currently it is trying to build a competitive advantage based on the solutions and concepts offered by Gaia-X.



The Mont Blanc IoT company provides its services to the clients based on the IOT concept. Due to the dynamic development, the company is currently looking for safe and trusted data storage.



The enhanced scenario Gaia-X 2023



Dufour Storage is a company that has been offering a data storage service for years. Currently it is trying to build a competitive advantage based on the solutions and concepts offered by Gaia-X.



RIVER TRAIL

River Trail is a company specialized in climate research and weather prediction. They are buying data from Mont Blanc for their services.



The Mont Blanc IoT company provides its services to the clients based on the IOT concept. Due to the dynamic development, the company is currently looking for safe and trusted data storage.

Gaia-X Digital Clearing House



Node



Farmer



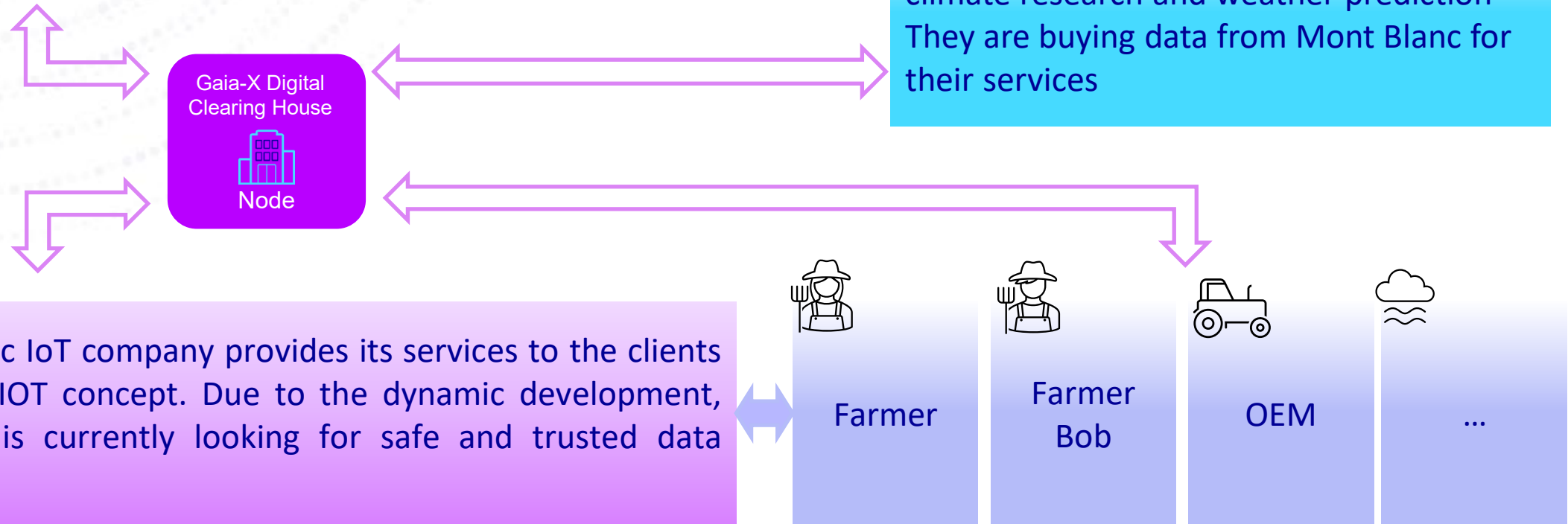
Farmer Bob



OEM



...



The scenario 2023



Dufour Storage is offering data storage services. Currently it is trying to build a competitive advantage based on Gaia-X standards.










Mont Blanc IoT provides IoT Device Management services. They are currently looking for safe and trusted data storage.



River Trail is a company specialised in IoT market analysis.

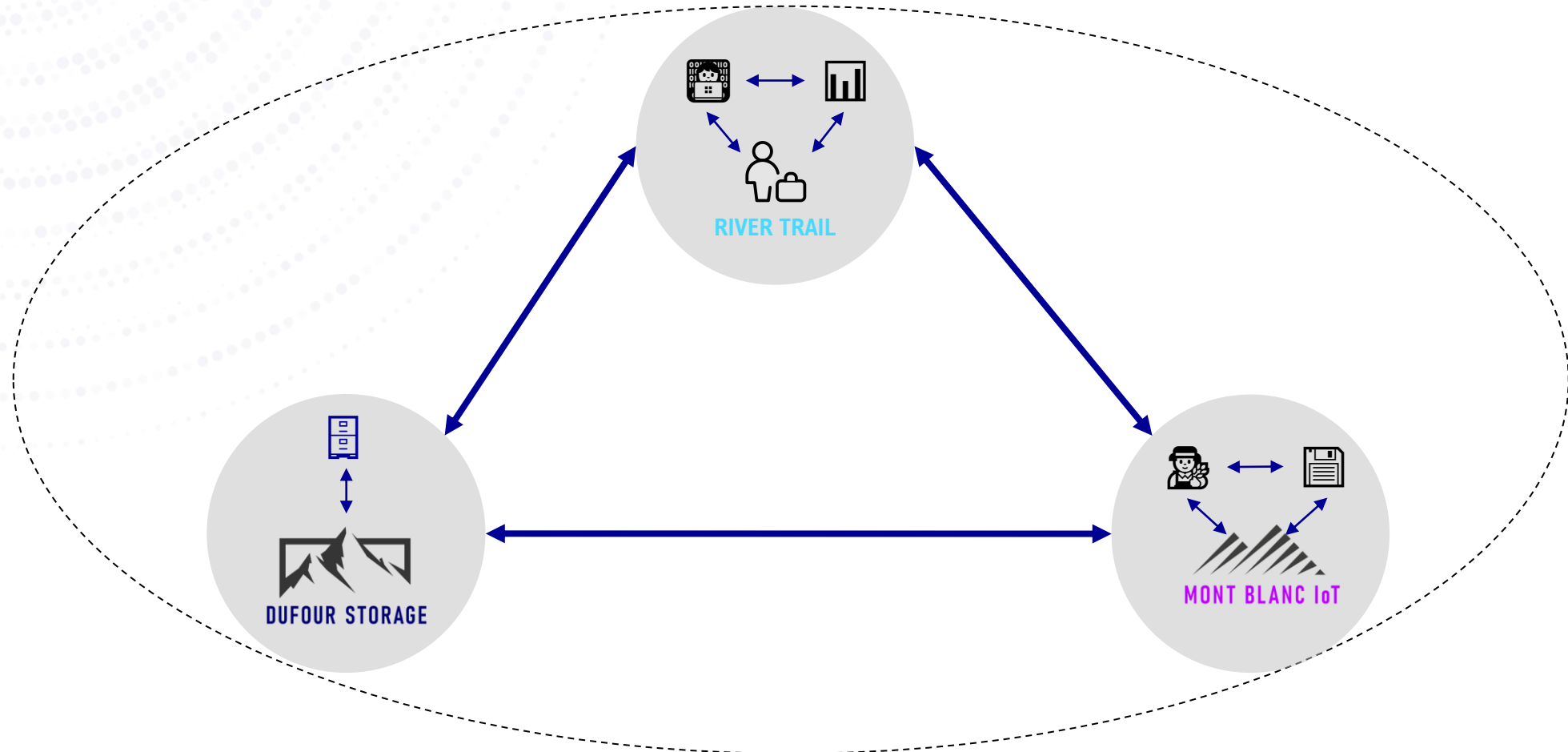
They are buying data for studies and researches.



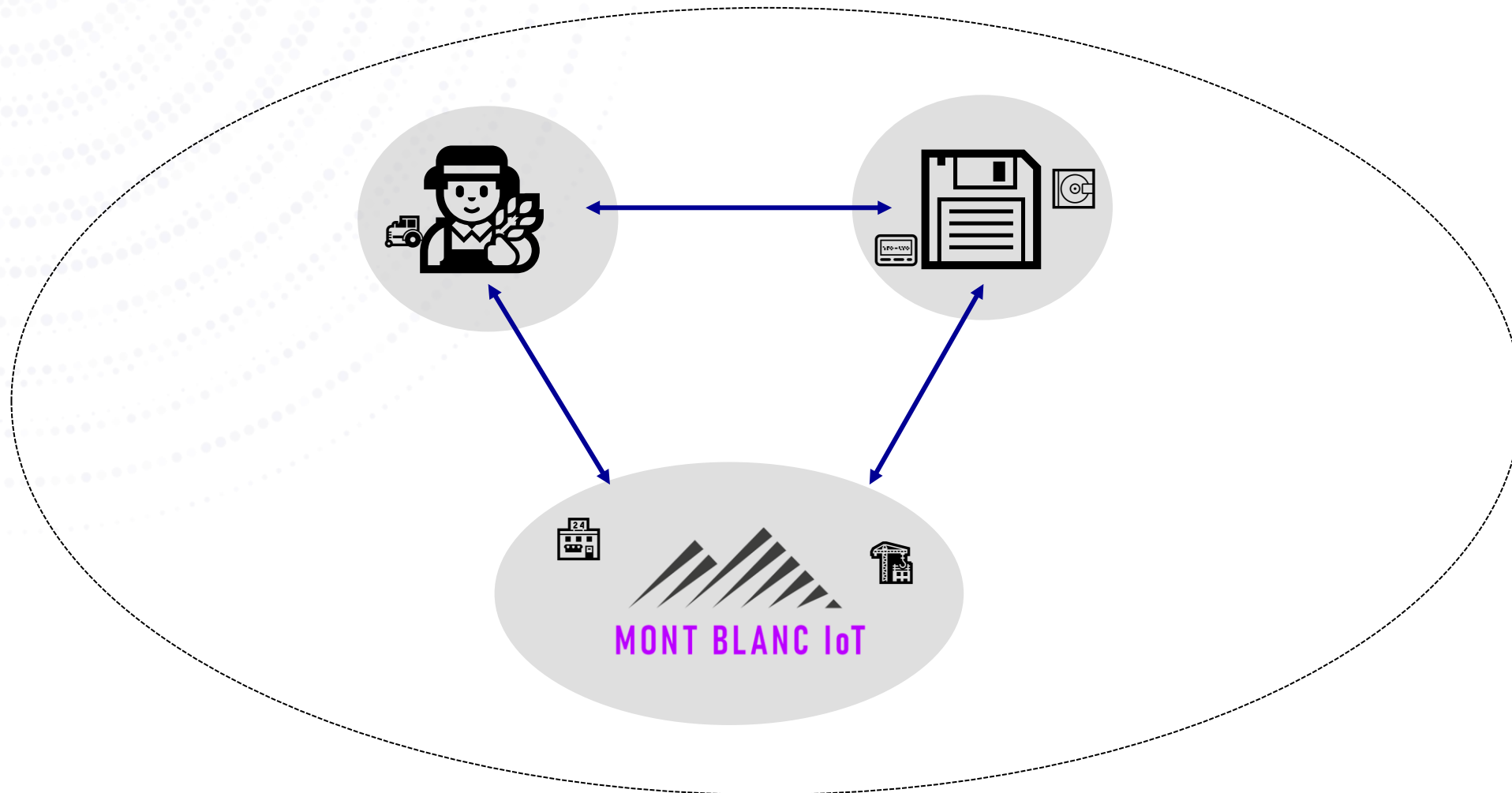
1. Bob the farmer  has installed IoT sensors from **Mont Blanc IoT** and the sensors are generating **Data** .
2. **Mont Blanc IoT** is looking for storage offering and found cloud storage  from Dufour Storage.
3. Alice , a **marketing research**  employee from **RiverTrail** is looking for IoT sensors data and found **Bob's**  **Data** .

The scenario

Alice , a marketing research  employee from from RiverTrail wants to process Bob the farmer  Data 
from Mont Blanc IoT stored on a cloud storage  from Dufour Storage.

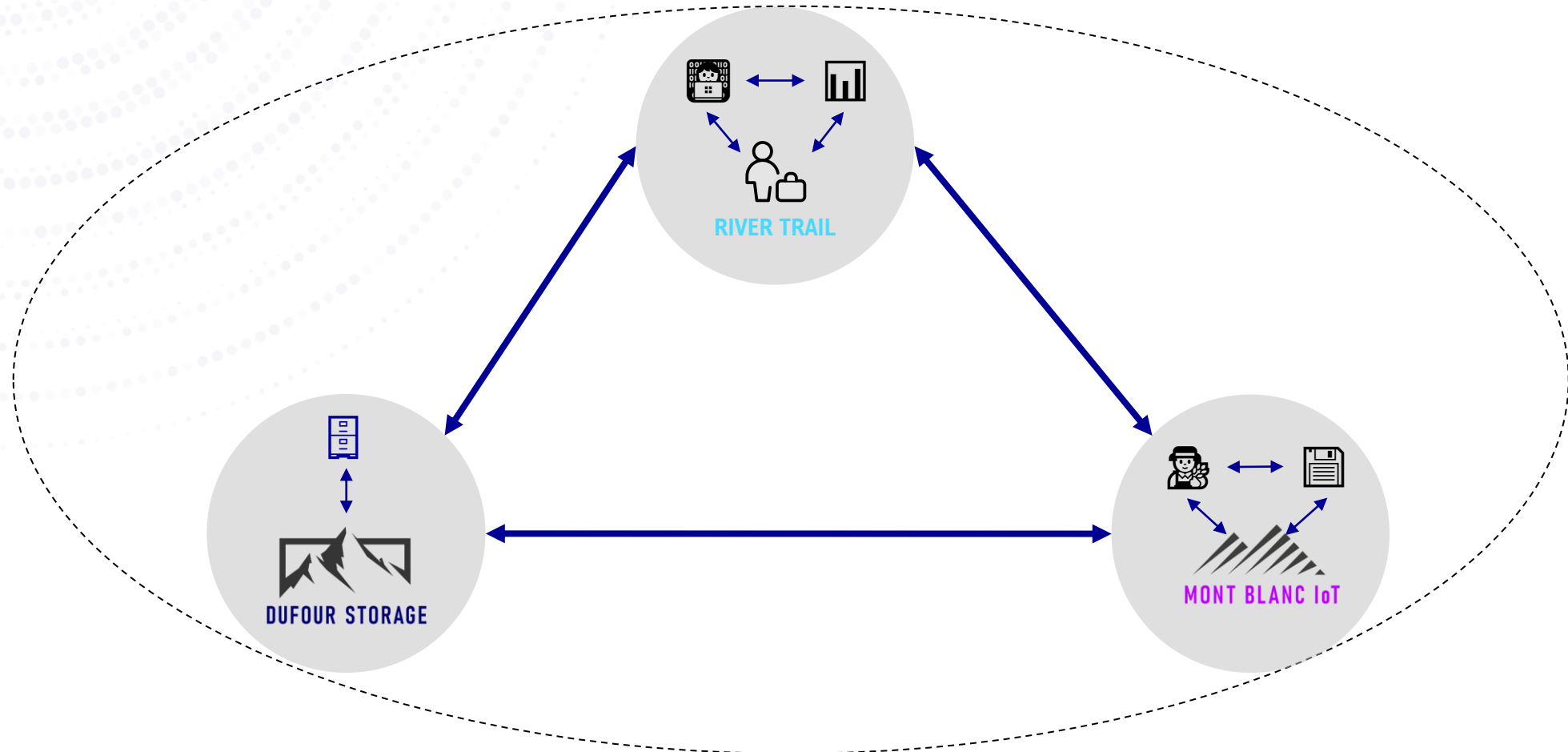


The scenario: a simple chainable and nested schema



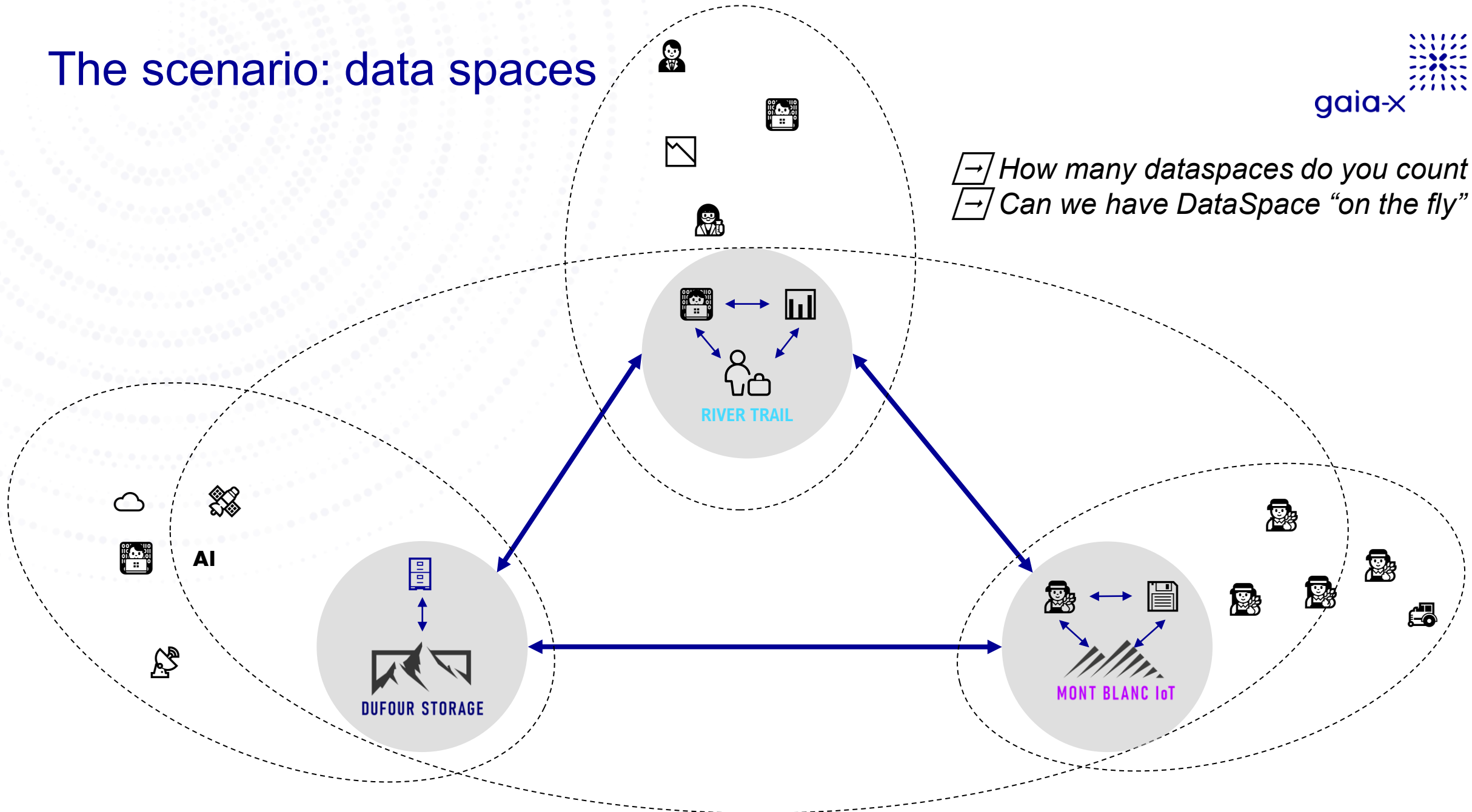
The scenario

Alice , a marketing research  employee from from RiverTrail wants to process Bob the farmer  Data 
from Mont Blanc IoT stored on a cloud storage  from Dufour Storage.



The scenario: data spaces

- How many dataspaces do you count ?
- Can we have DataSpace “on the fly” ?



slido

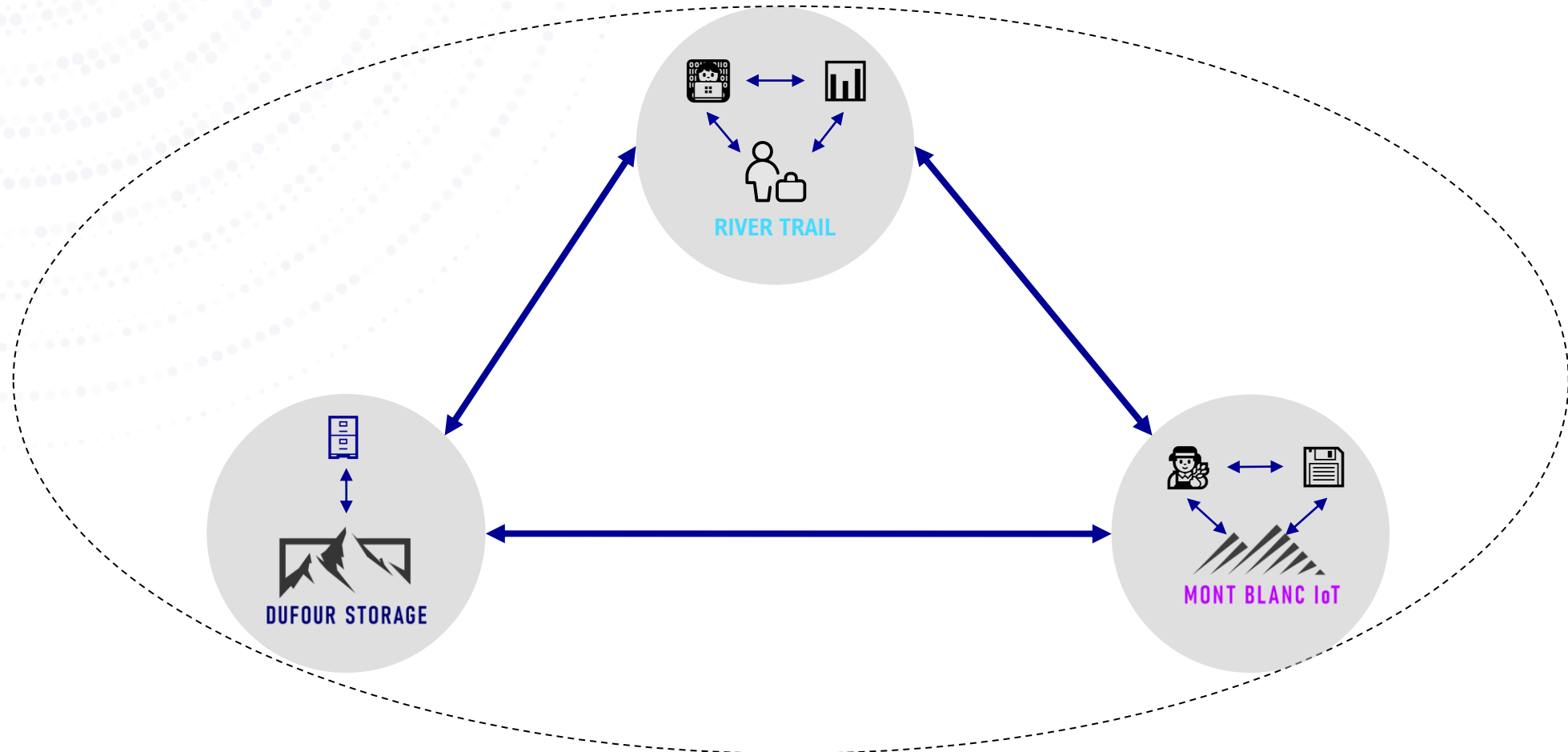


How many data space do you count ?

① Start presenting to display the poll results on this slide.

The scenario

Alice , a marketing research  employee from from RiverTrail wants to process Bob the farmer  Data 
from Mont Blanc IoT stored on a cloud storage  from Dufour Storage.



The scenario: educated decisions

Alice , a marketing research  employee from from RiverTrail wants to process Bob the farmer  Data 
from Mont Blanc IoT stored on a cloud storage  from Dufour Storage.



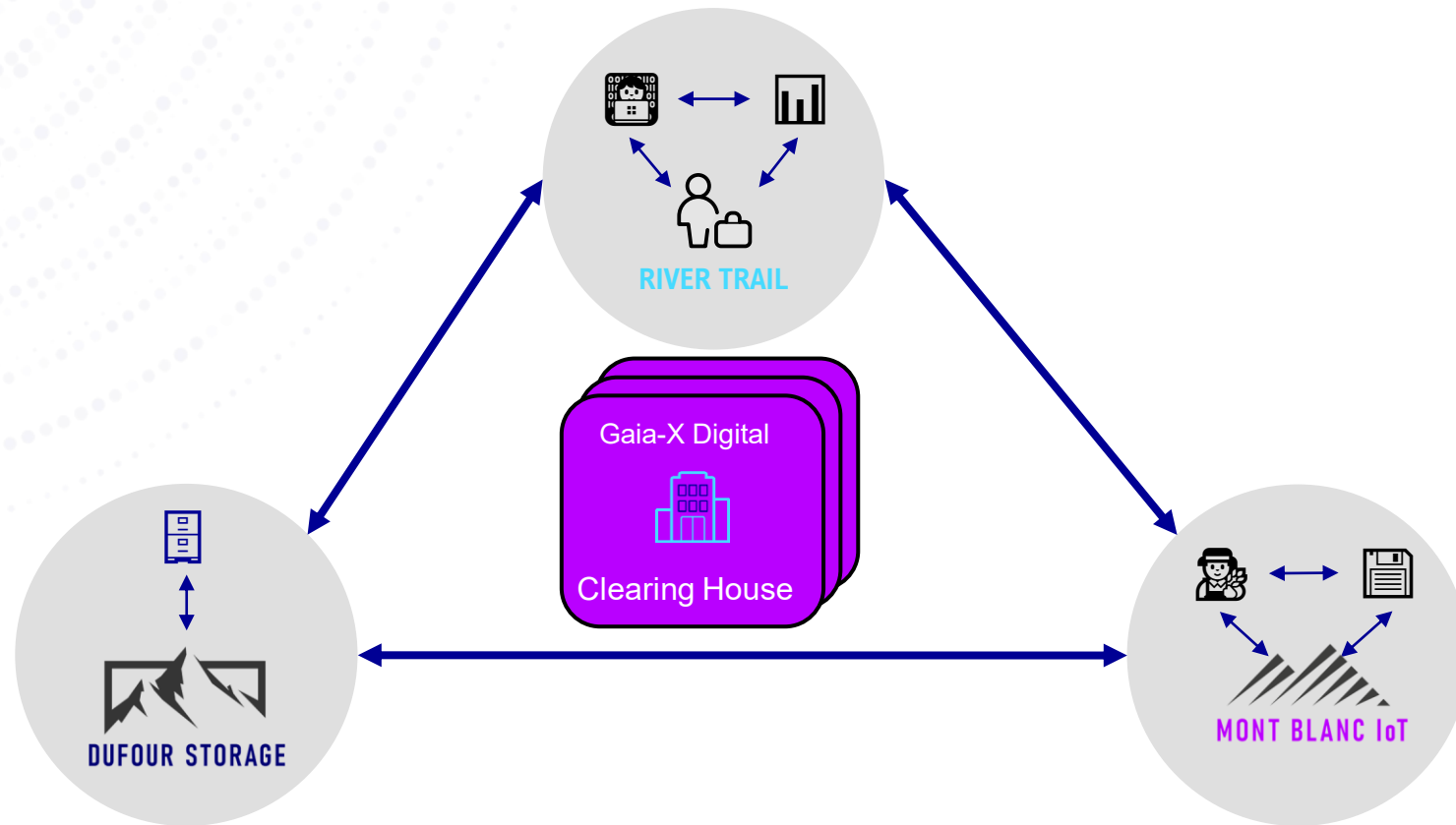
- How do we describe our environments (data products, services, parties – legal/natural person + workload) ?
- How do we search and find what we need ?
- How do we verify who is who and who has the permission/duty/prohibition to do what on what ?


DUFOUR STORAGE

MONT BLANC IoT

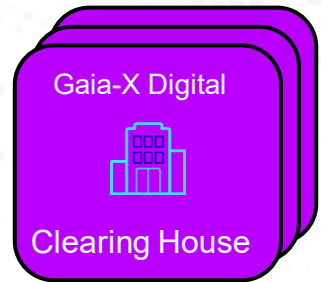
The scenario: the GXDCH

Alice , a marketing research  employee from from RiverTrail wants to process Bob the farmer  Data 
from Mont Blanc IoT stored on a cloud storage  from Dufour Storage.







The scenario: Building Blocks

We are here
Live & Running



	GXDCH Services** (Mandatory / Optional)
TAGUS v1 (22.10)	Registry service
	Compliance & Notary services
	Wallet & Wizard
LOIRE v2 (23.xx)	Credential Event Service* Catalogues
	Policy Decision and Enforcement Points
	Trust Indexes*
	Data Exchange services ⋮

Gaia-X Framework	
• Specifications	
• Code	 
• Label	

More in the Tech Theater !

* Already included in TAGUS as optional.

** Not all future services are listed here.

Status Gaia-X Digital Clearing Houses



GXDCH

ALL SYSTEMS OPERATIONAL

GXDC STATUS

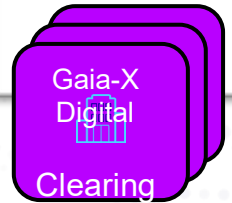
This page indicates whether a service is UP and running. It does not attest to the end to end functionality

Overview

- [Gaia-X Lab](#)
- [Aruba](#)
- [Telekom](#)

Gaia-X Lab			Aruba			T-Systems		
Compliance	Registry	Notary	Compliance	Registry	Notary	Compliance	Registry	Notary
1.8.1	1.7.1	1.6.1	1.8.1	1.7.1	1.6.1	1.8.1	1.7.1	1.6.0
UP	UP	UP	UP	UP	UP	UP	UP	UP

Orange, Gaia-X Spain, TIM (Telecom Italia)
 accreditation in progress



<https://docs.gaia-x.eu/framework/?tab=clearing-house>

Non-exhaustive list of **candidates**:

List of deployed GXDC under evaluation for accreditation:

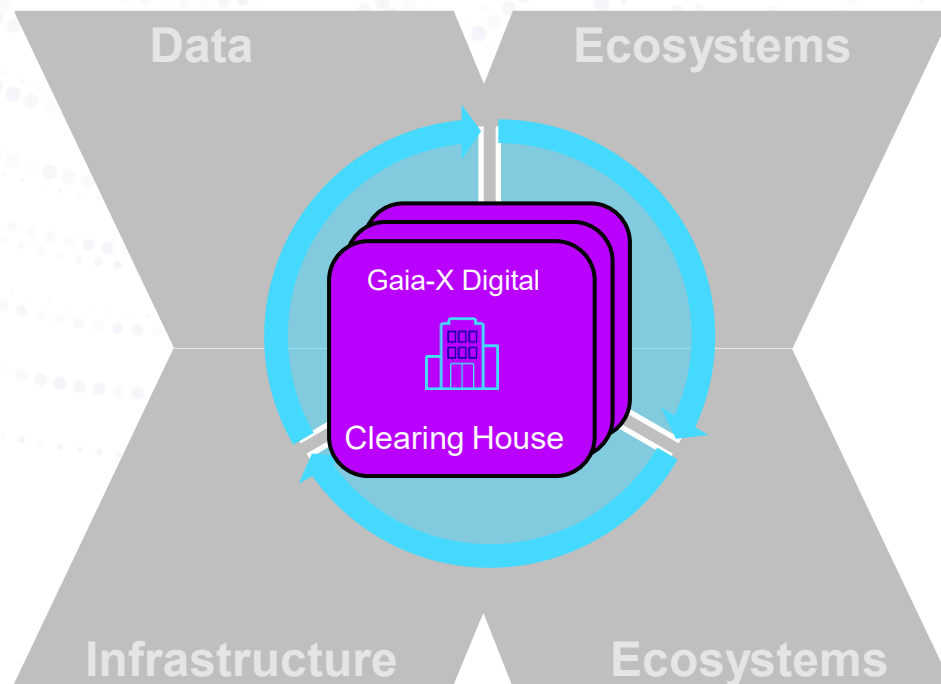
List of **accredited** GXDC:

- A1 Digital
- Arsys Internet S.L.U.
- Exaion (EDF)
- Fundacion Tecnalía Research and Innovation
- Gigas Hosting S.A.
- Ionos SE
- iShare
- K-BusinessCom
- LHC – LuxConnect
- MBR
- NRB
- OSISM
- OVHCloud
- Proximus,
- Tieto Evry
- Uniserver B.V.

- Orange
- Gaia-X Spain
- Telecom Italia (TIM)

- Aruba,
- T-Systems

First user experience: “How to get started!”



- Request a Legal Registration Number credential**.
- Create and sign my Legal Participant credential.
- Create and sign the Gaia-X Terms & Conditions credential.
- Create and sign my Service Offering credential.
- Send credentials for validation and request proof of Gaia-X Compliance.
- Publish my Service Offering in the network of catalogues.

*All actions done in the wizard are also available via API.

Each step could be done on a different GXDCH instance.

**Credentials are equivalent to digitally signed attestations.



Gala-x

v1

Local Wallet

Playground

Participant VCs in 4 steps

Stepper

Get Legal Registration Number

User Guide

Contribute

Issue Verifiable Credential

Sign

green-vegetable



Examples



I use my own DID solution



Verification method

Private key ?



.....

.....

.....

.....

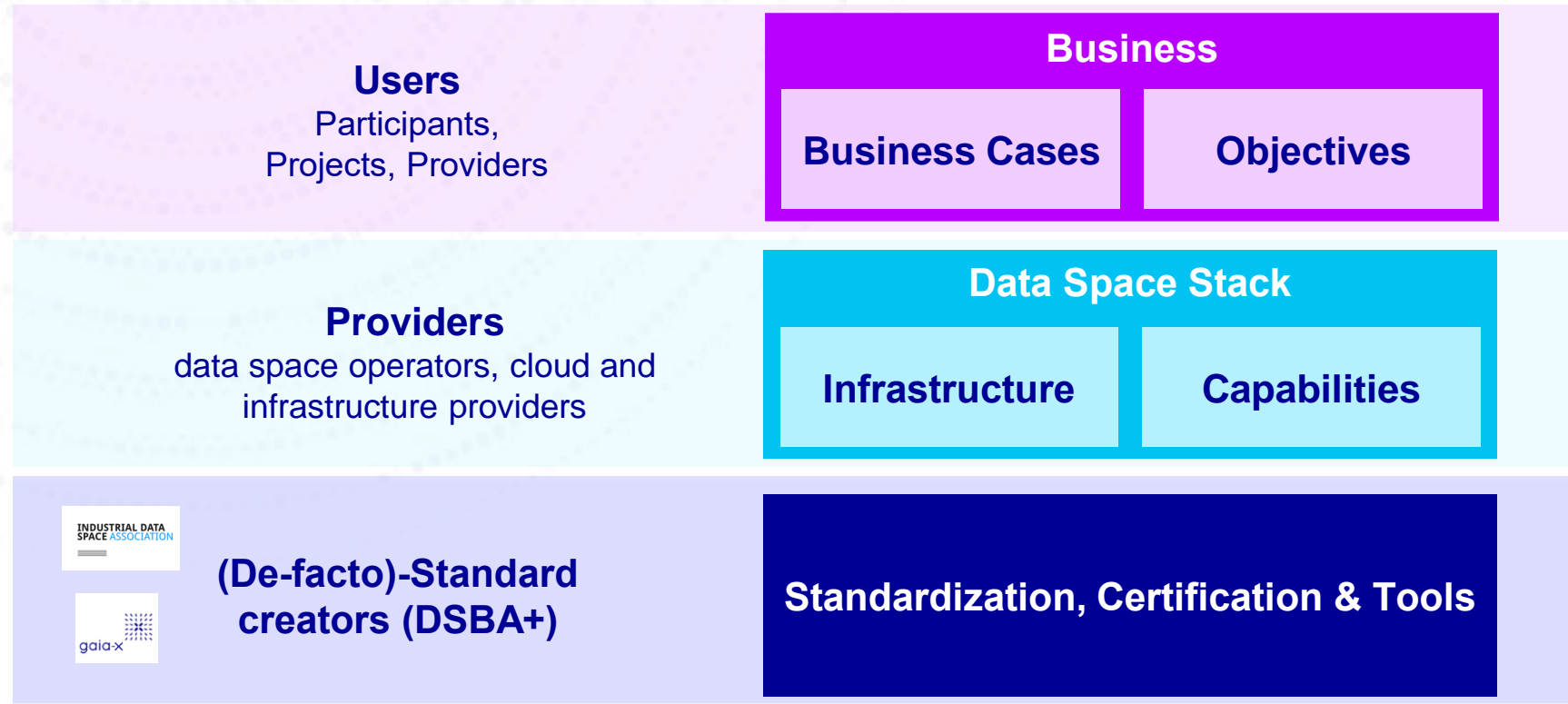
.....

Holder

+ Import signed document

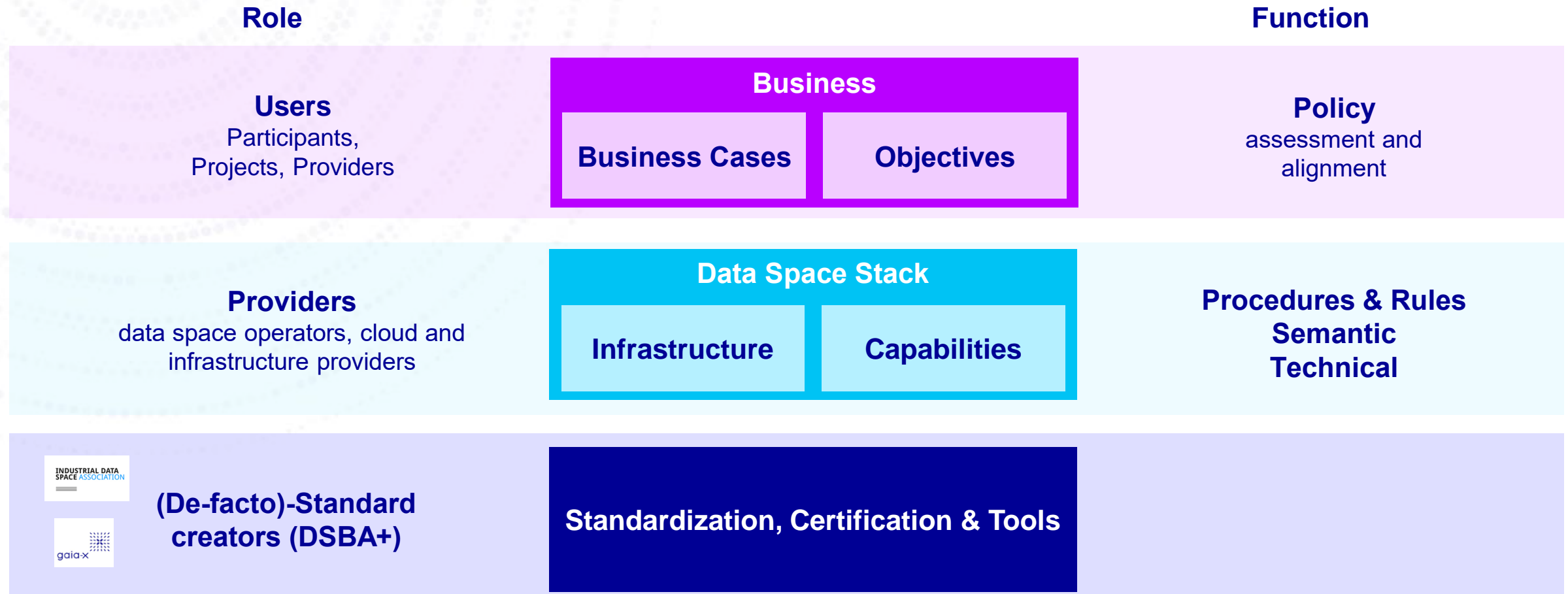
Call compliance

Dataspace Layer Model

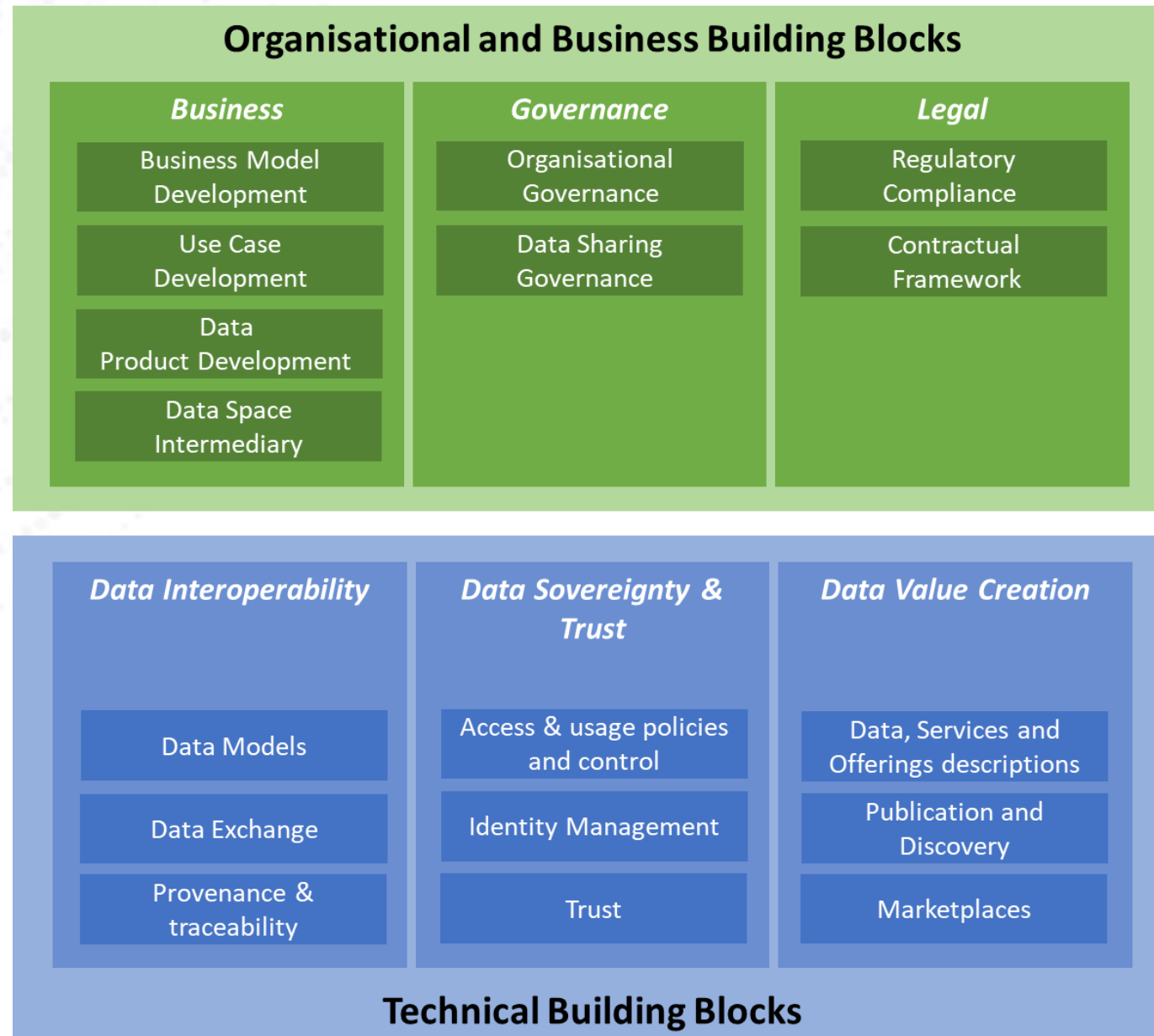


“decouple
business model
from stack”

Dataspace Layer Model

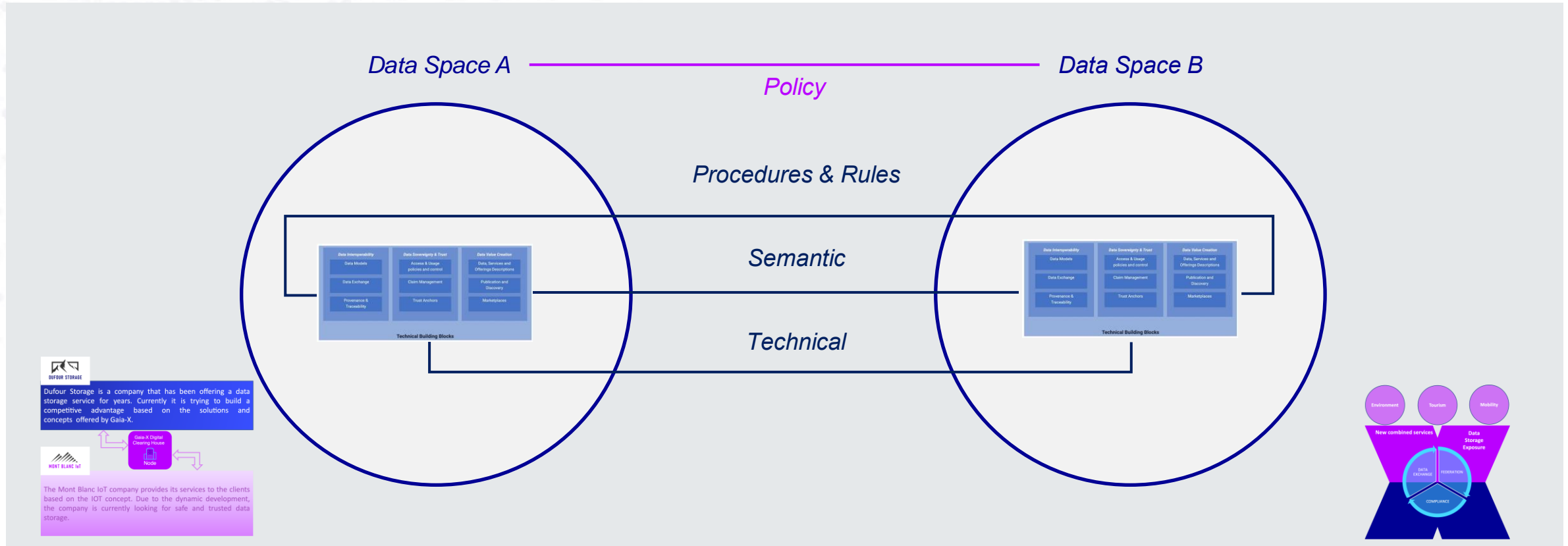


Dataspace Stack Capabilities aligned with DSSC

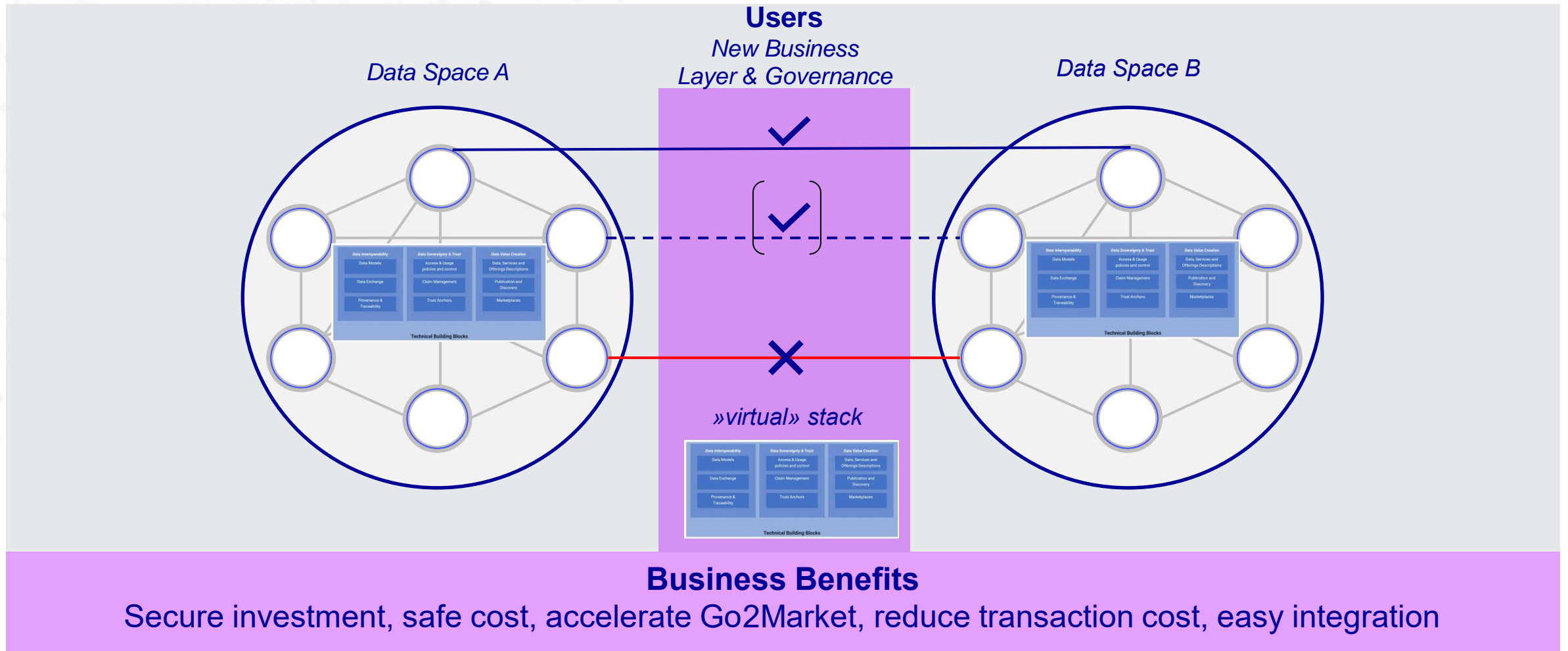


* source: DSSC blueprint 0.5

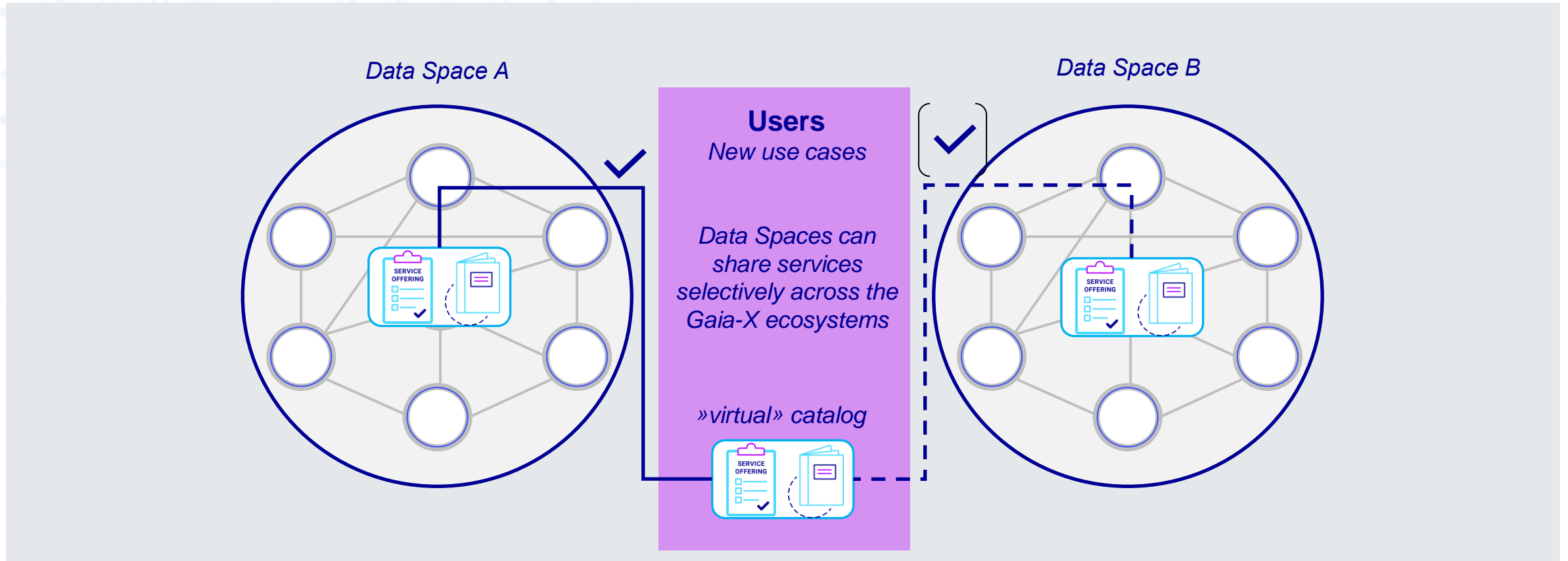
Connecting Dataspace with the Layer Model






Selective data usage enablement between Dataspaces

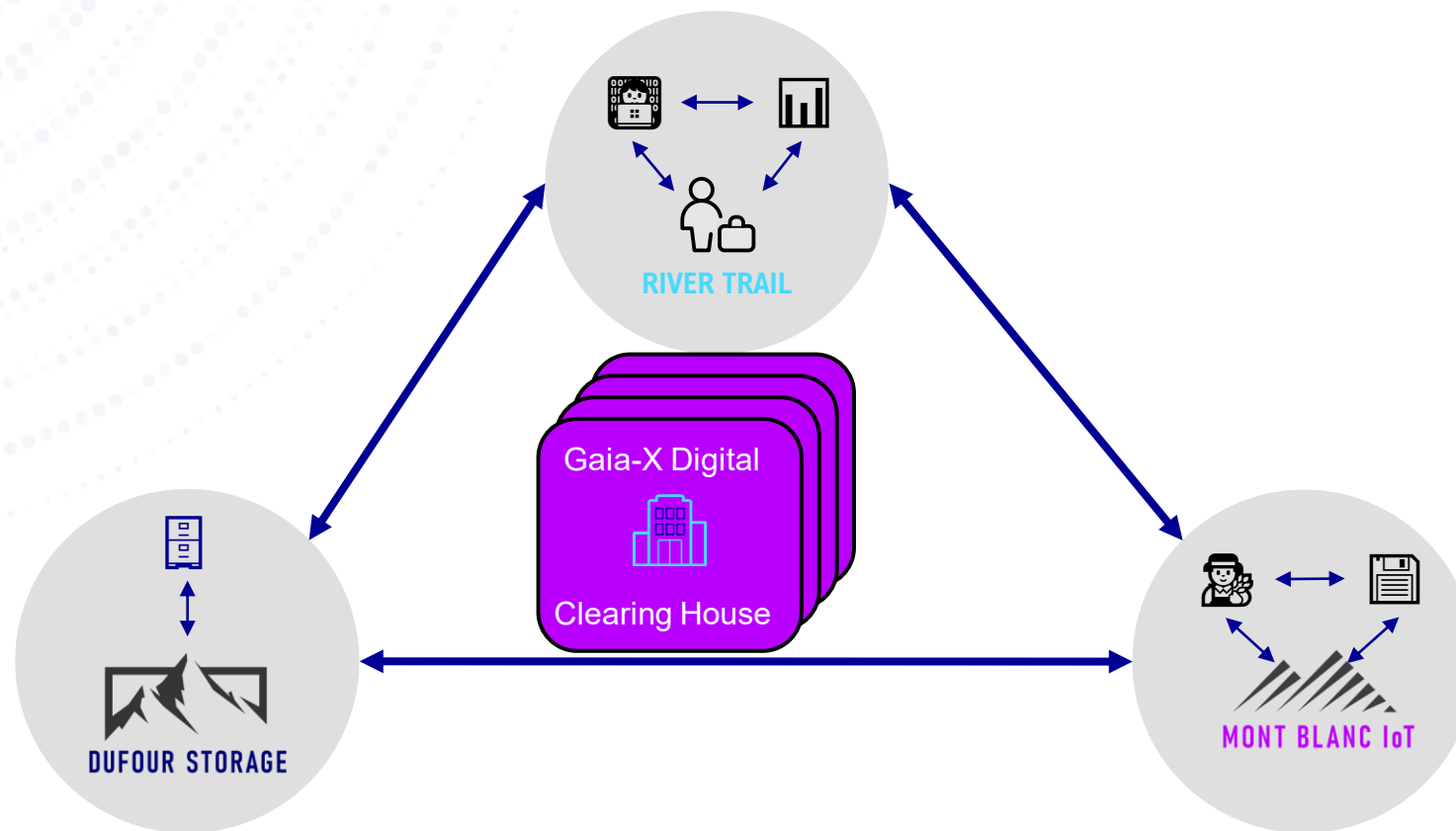


Catalogue sharing between Dataspaces



The scenario: the Federated Catalogues

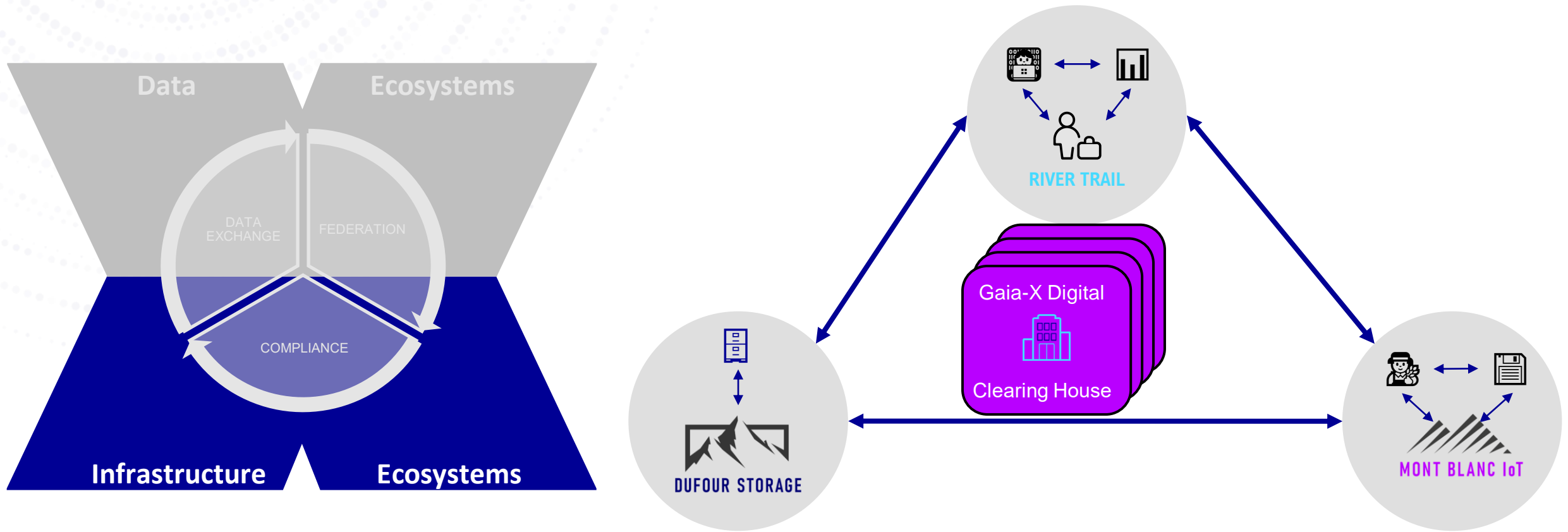
Alice , a marketing research  employee from from RiverTrail wants to process Bob the farmer  Data 
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The scenario: the Federated Catalogues

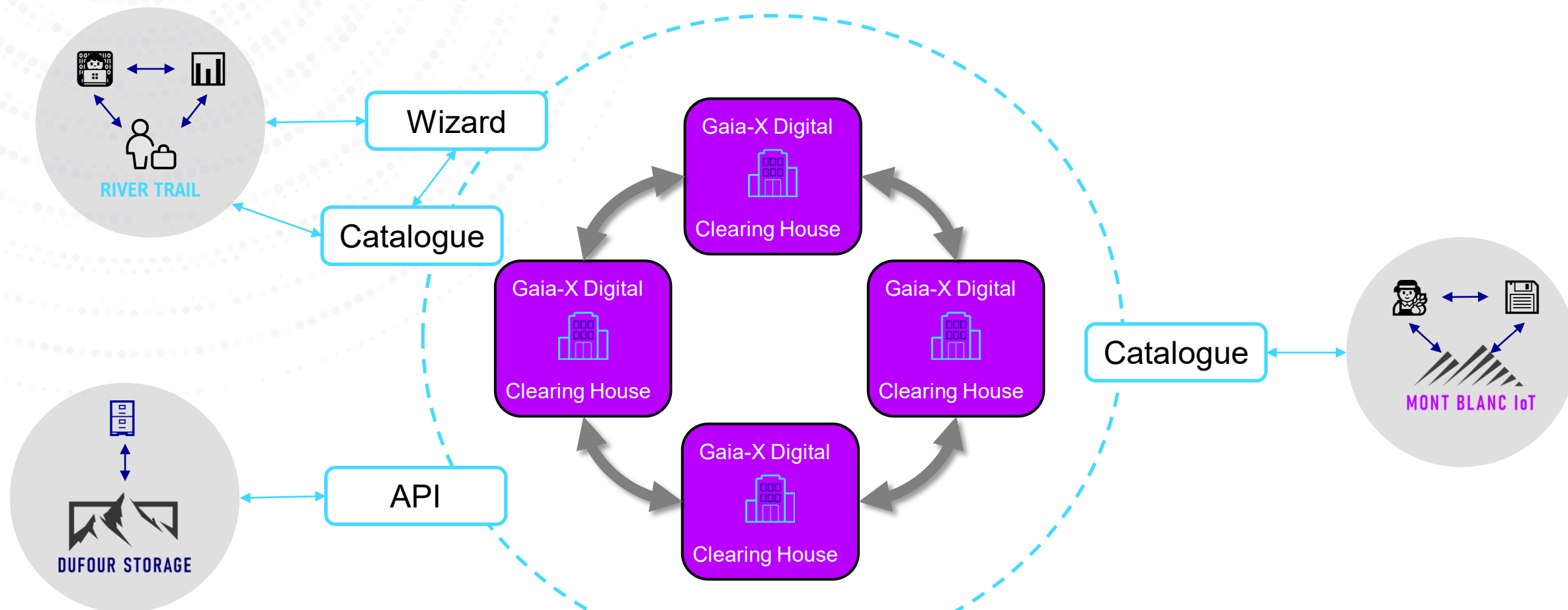


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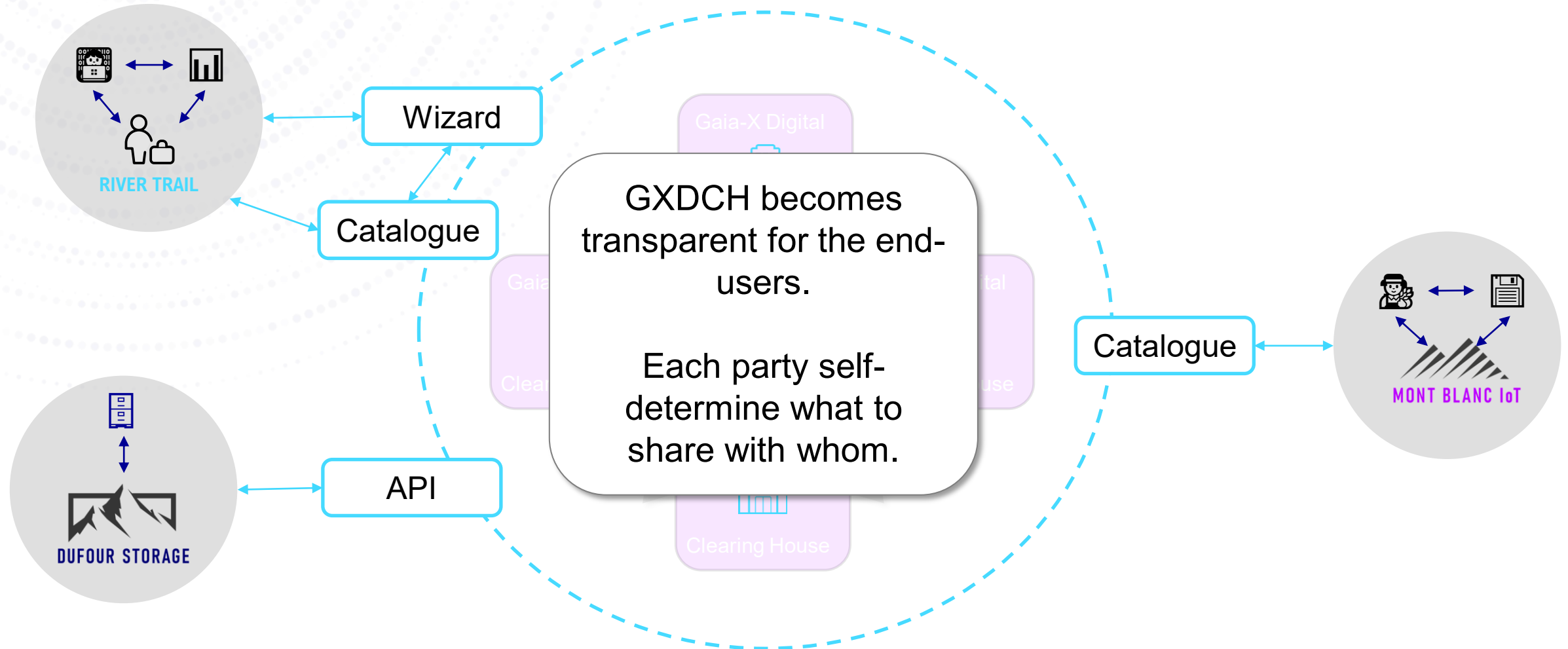
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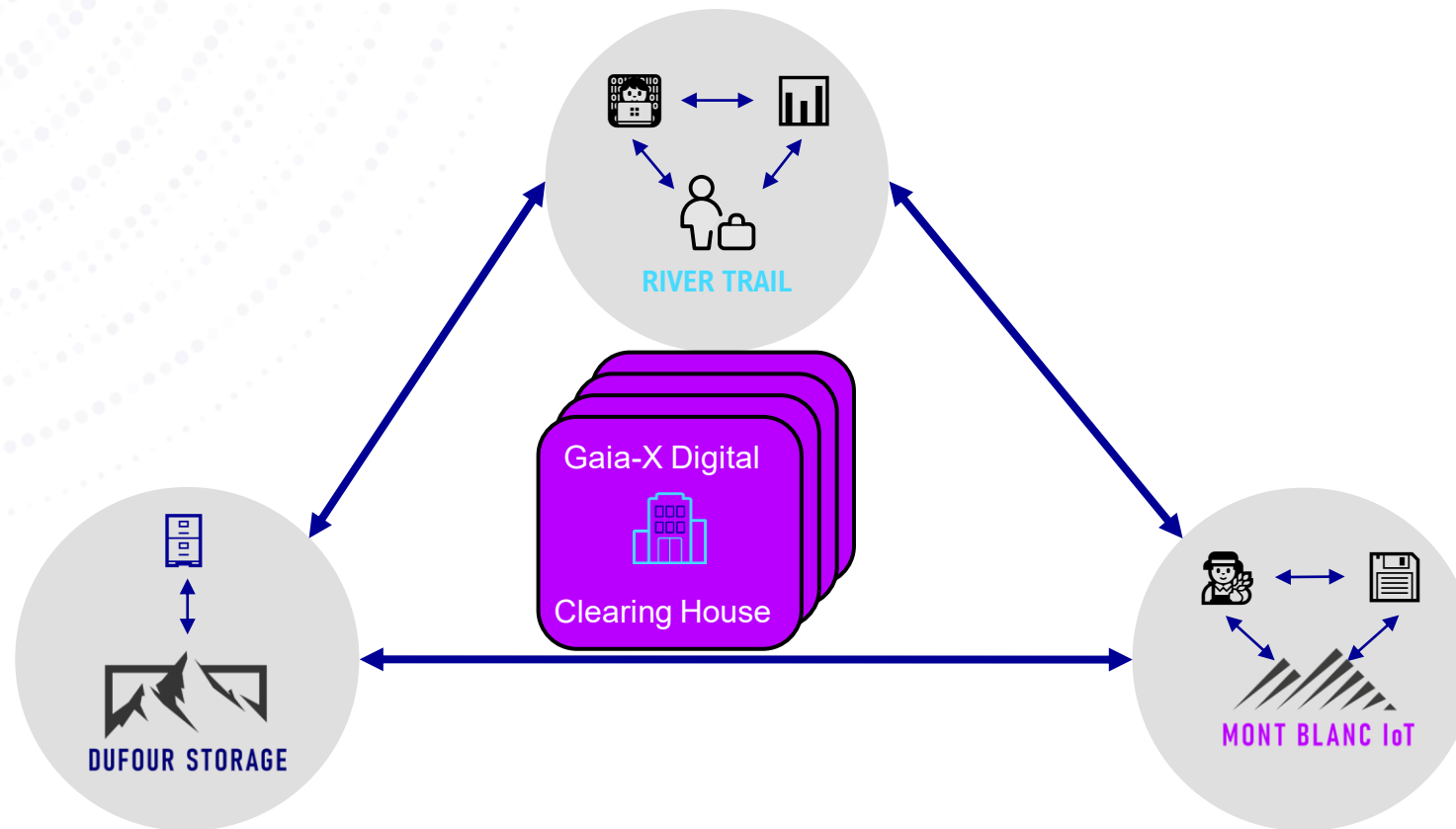
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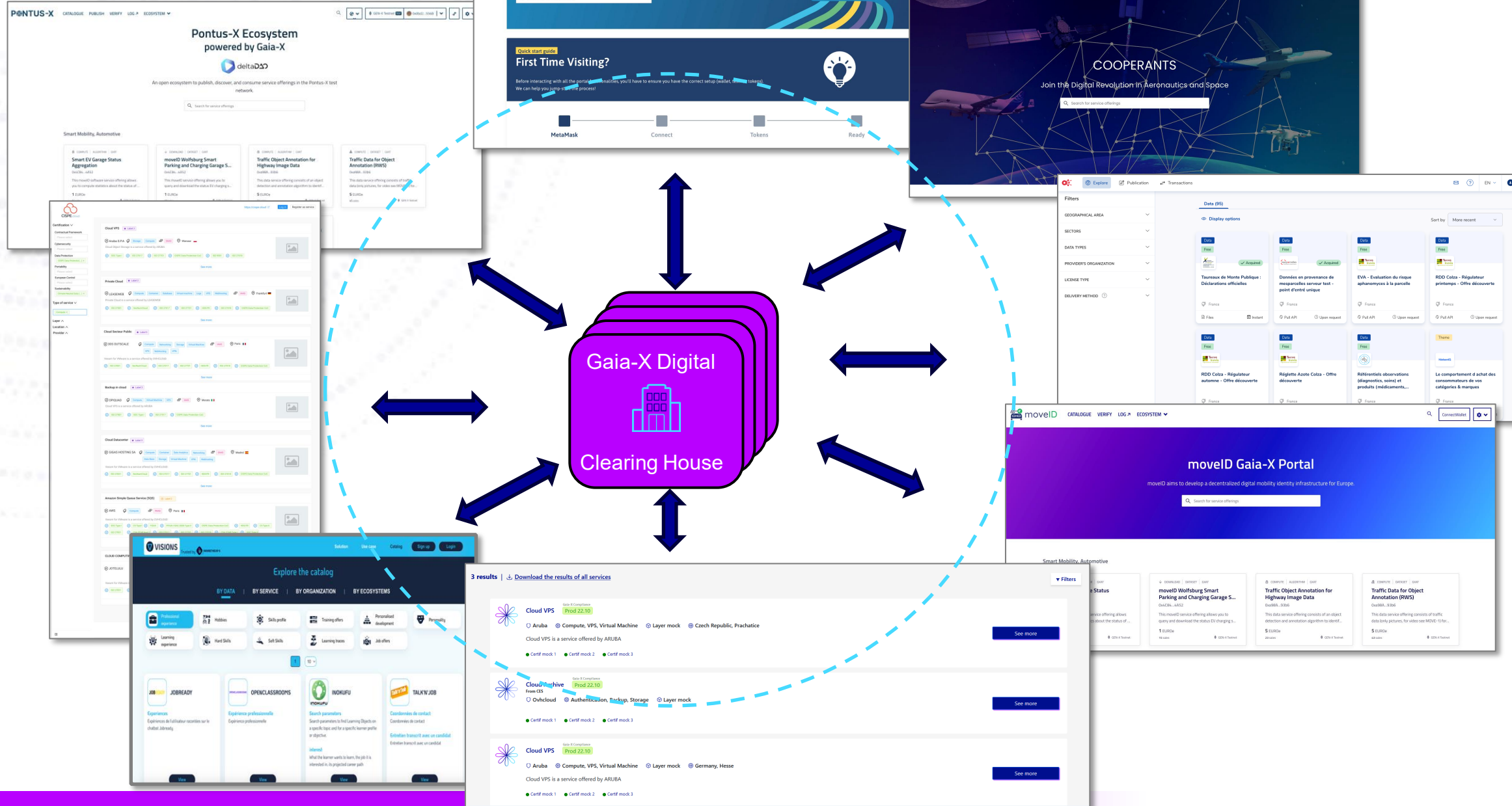


The scenario: the Federated Catalogues

Alice , a marketing research  employee from from RiverTrail wants to process Bob the farmer  Data 
from Mont Blanc IoT stored on a cloud storage  from Dufour Storage.



Federated Catalogues



Pontus-X Ecosystem

PONTUS-X

powered by Gaia-X



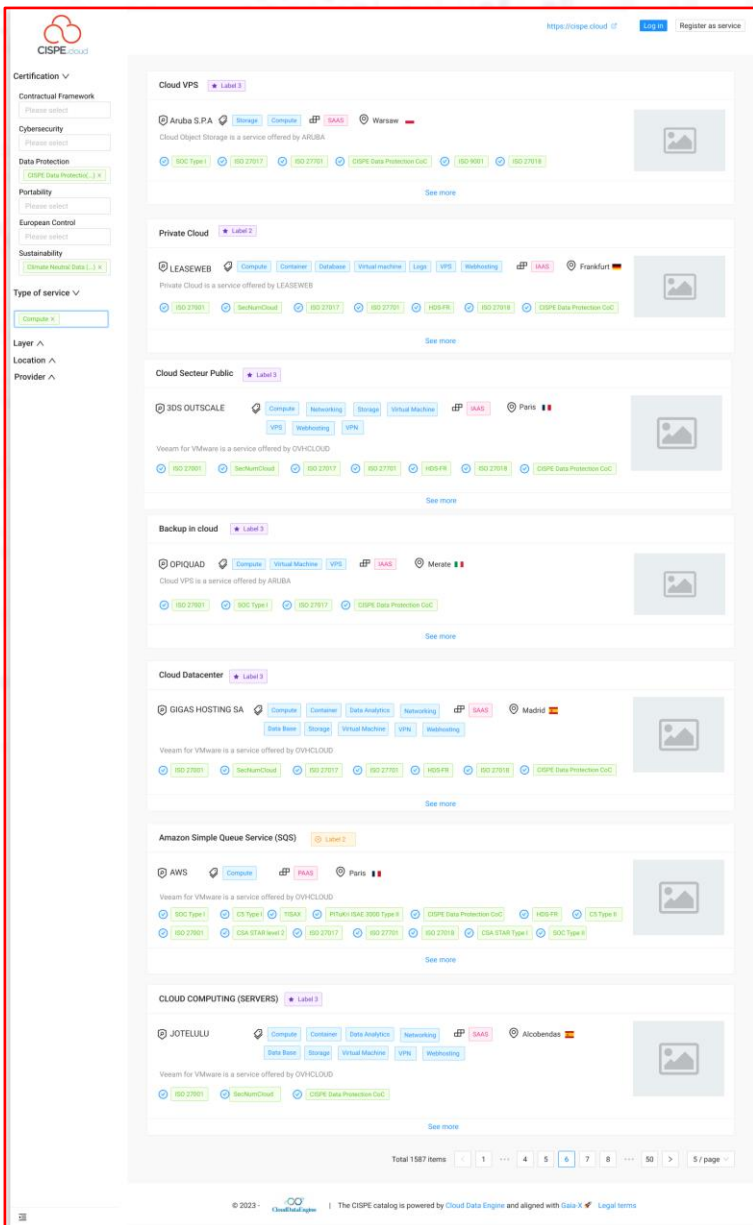
<https://pontus-x.eu>

or

visit the  booth

- Main Portal for the Pontus-X ecosystem powered by Gaia-X
 - Serves service offerings from multiple verticals (e.g., Mobility, Manufacturing, Agriculture, Aerospace, Science, Health, Energy)
 - Comprises service providers from across Europe (Germany, Austria, Italy, Spain, Netherlands, France)
- Using the Pontus-X catalogue (Ocean Protocol) and Gaia-X Digital Clearing Houses
 - Maintained by 12 federators across Europe, open, transparent, resilient, and decentralized
 - KPI(s): over 10+ services in the production CES (v1). Credentials can be traced back directly to the market and corresponding service offerings.

CISPE Federation Catalogue



The screenshot displays the CISPE Federation Catalogue interface. It features a sidebar on the left with filters for Certification (Contractual Framework, Cybersecurity, Data Protection, Portability, European Control, Sustainability), Type of service (Compute), Layer (Location, Provider), and pagination (Total 1587 items, 5 / page). The main content area lists several service categories, each with a list of providers and their respective services. For example, 'Cloud VPS' includes providers like Aruba S.P.A. and services like Cloud Object Storage. Other categories include 'Private Cloud' (LEASEWEB), 'Cloud Securer Public' (RDS OUTSCALE), 'Backup in cloud' (OPRIQUAD), 'Cloud Datacenter' (GIGAS HOSTING SA), 'Amazon Simple Queue Service (SQS)' (AWS), and 'Cloud Computing (Servers)' (JOTELUULU). Each provider entry includes icons for various certifications and standards.

- CISPE.cloud is the voice of cloud providers in Europe
- The CISPE Federation Catalogue, is the **First catalogue 100% in production** demonstrating the whole **Gaia-X Value Chain with Verifiable Credentials**
- All Cloud Providers are welcomed to declare services if
 - following the **Gaia-X Policy Rules & compliance**, and
 - supporting key European initiatives on **Climate Neutrality, Data Portability and Data Protection**
- 13 providers listed with **777 located services offerings, in 68 locations**
 - Services can be searched based on certifications, locations, typology or type of services (IaaS, PaaS, SaaS / Backup, Compute, Storage, etc.)
- The catalogue is **open and public**
- The Catalogue can be used to **search and compose services offerings**
- The catalogue is owned by CISPE and operated by **Cloud Data Engine (www.CloudDataEngine.io)**

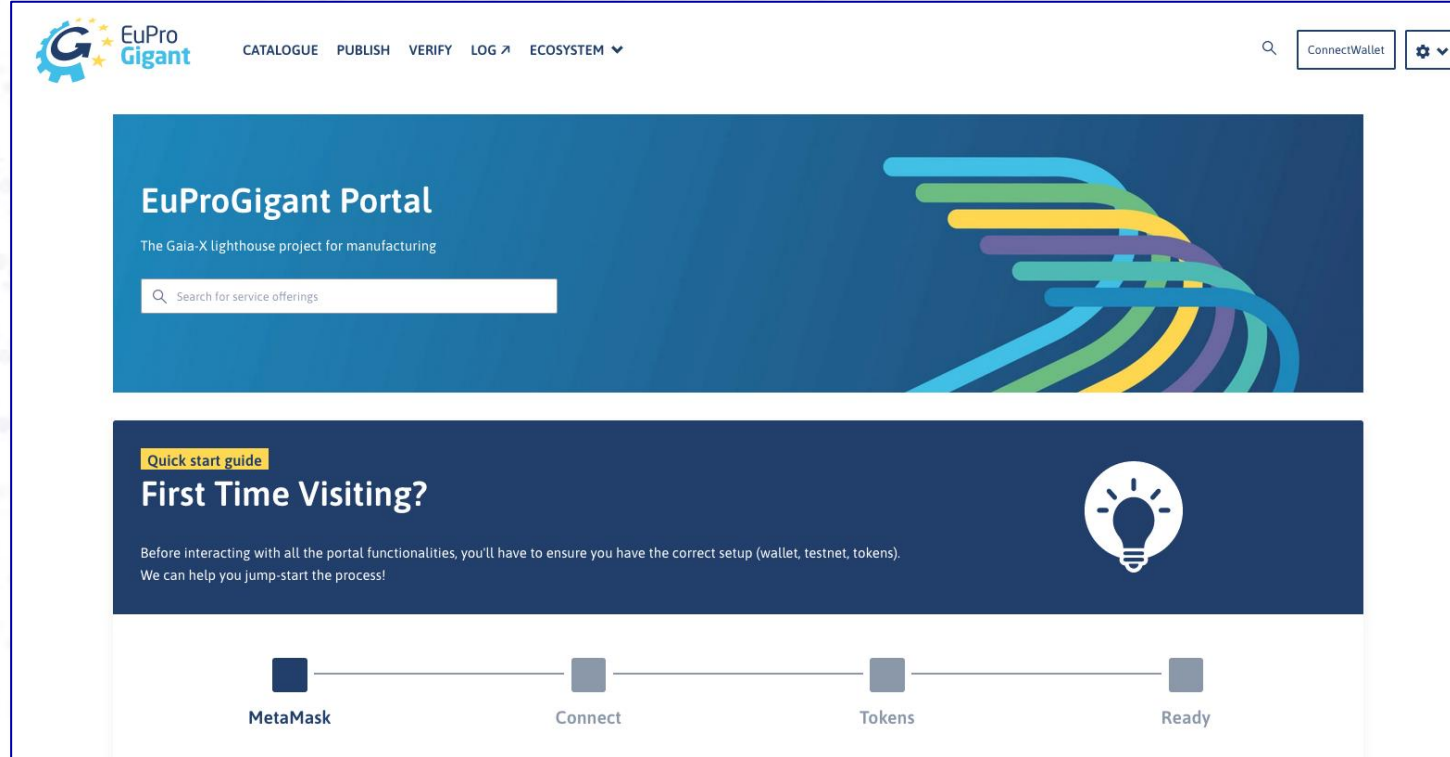


Visit **our booth**

or

Visit **our catalogue**
<https://catalogue.cispe-cde.cloud>

EuProGigant



 **Federal Ministry
Republic of Austria**
Climate Action, Environment,
Energy, Mobility,
Innovation and Technology

Supported by:



on the basis of a decision
by the German Bundestag



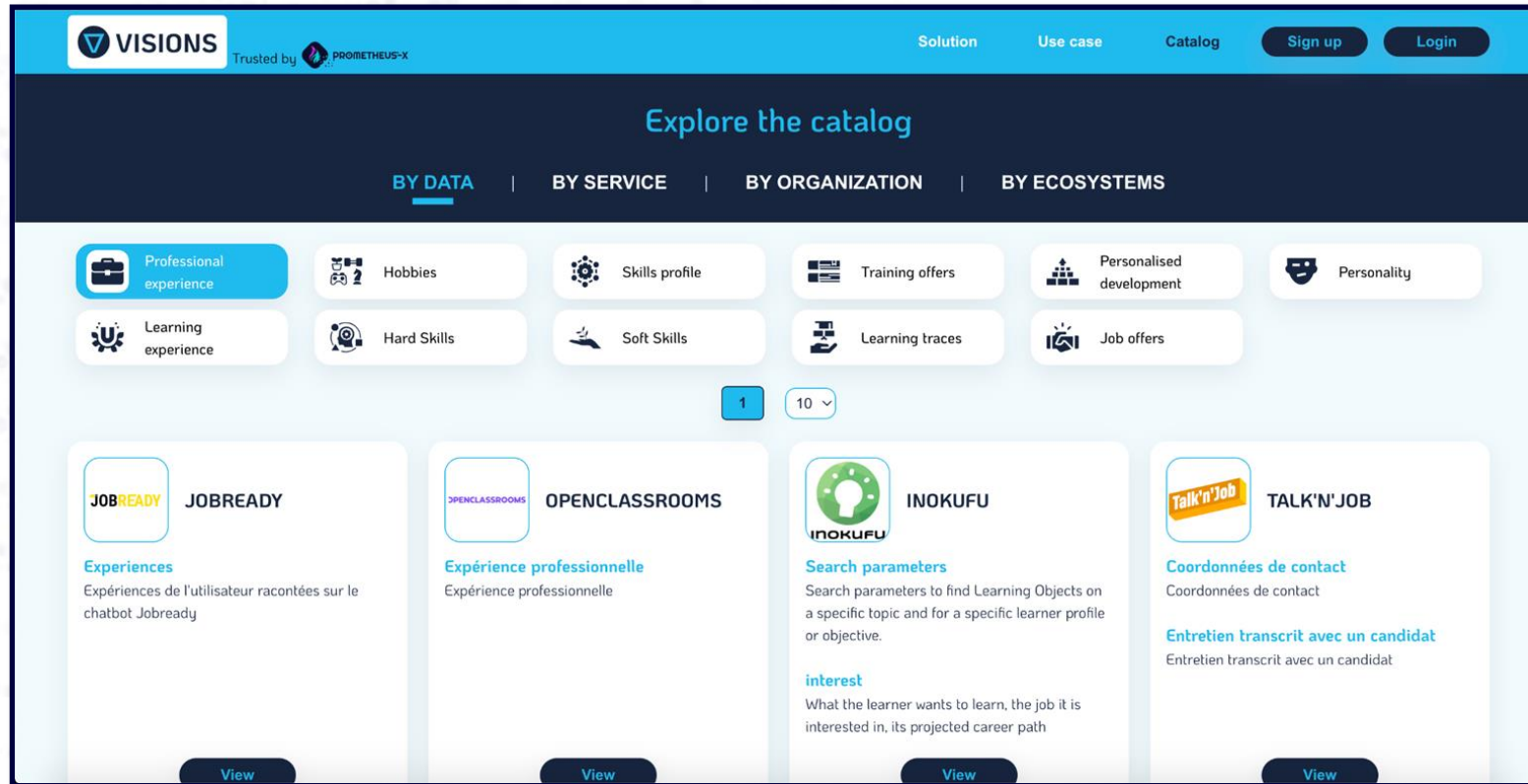
<https://portal.euprogigant.io/>

or

visit our booth

- The **European Production Giganet** is a binational industrial project demonstrating smart and sovereign use of data in manufacturing
 - Focus on manufacturing value chain ecosystems demonstrated with different use cases, e.g., tool condition, CO₂-equivalent estimation and component matching
 - Fully decentralised catalogue of equal partners consisting of SMEs and corporates
- Using the Pontus-X catalogue (Ocean Protocol) and Gaia-X Digital Clearing Houses
 - Operated by the Pontus-X community
 - KPI(s): current three use cases with unique description which are instantiated as Gaia-X Services which with some having automated publishing to the CES

VisionsTrust a Prometheus-X catalog



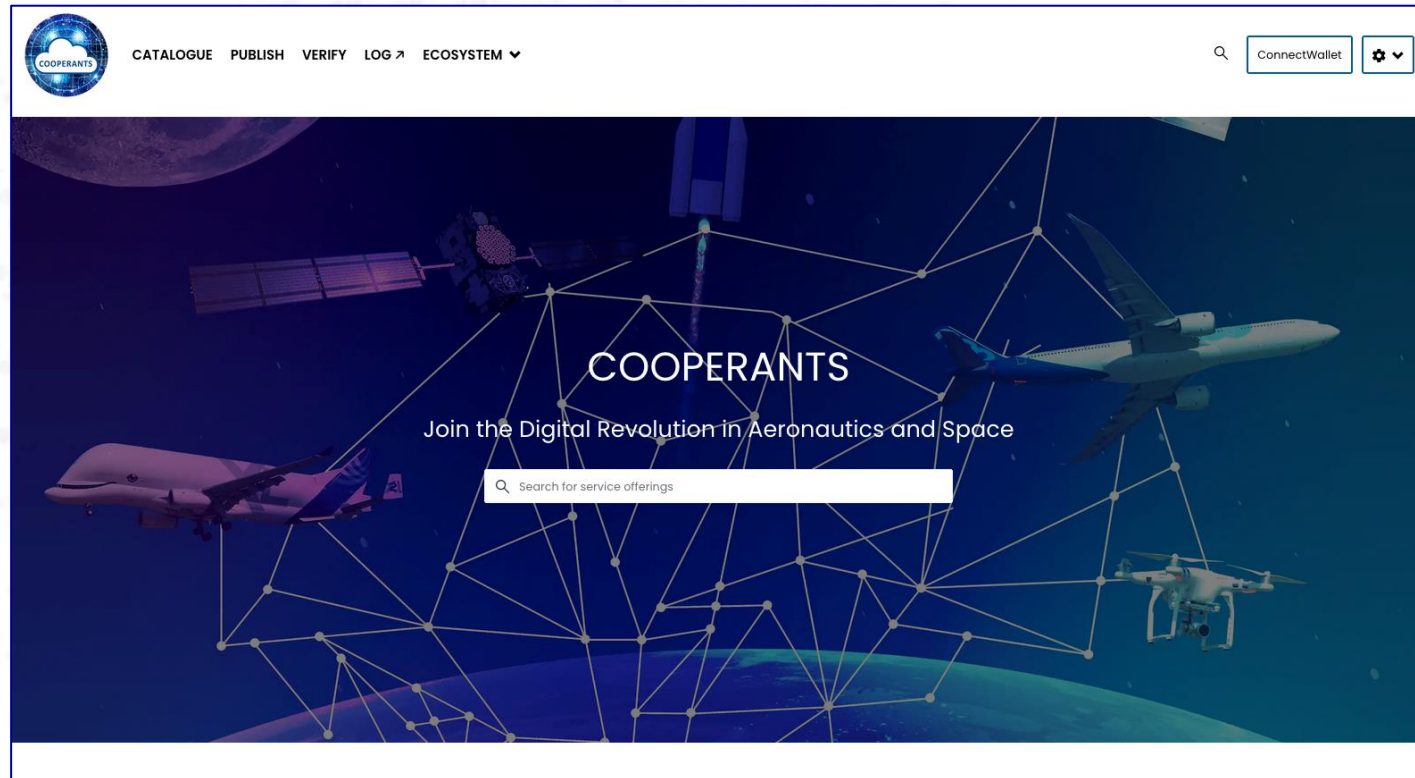
powered by Gaia-X



Visit our Prometheus-X booth!

- Verticals: Education and Tourism (200 organisations, 180 data sets, 190 services, 30 data space use cases)
- Allows to personal data sharing in a human-centric way, allows to set use case specific governance and business models
- Presentation of the catalogue:
 - Visions operates the catalog, based on top of Prometheus-X's Gaia-X Compliant building blocks
- No requirements to use the catalog
- KPI(s):
 - development: 200 organisations, 180 data sets, 190 services, 30 data space use cases
 - Production: 40 organisations, 50 data sets, 30 services, 3 data space use cases

COOPERANTS



- COOPERANTS is the world's only collaborative alliance of industry, SMEs and research institutes in the Aeronautics and space sector
 - Aeronautics and Space, Defense, and Manufacturing
- Using the Pontus-X catalogue (Ocean Protocol) and Gaia-X Digital Clearing Houses
 - Operated by the Pontus-X community
 - KPI(s): 6+ services published to CES v1



Gefördert durch:



aufgrund eines Beschlusses
des Deutschen Bundestages



<https://cooperants.pontus-x.eu/>

or

visit the  booth

Aster-X Catalogue



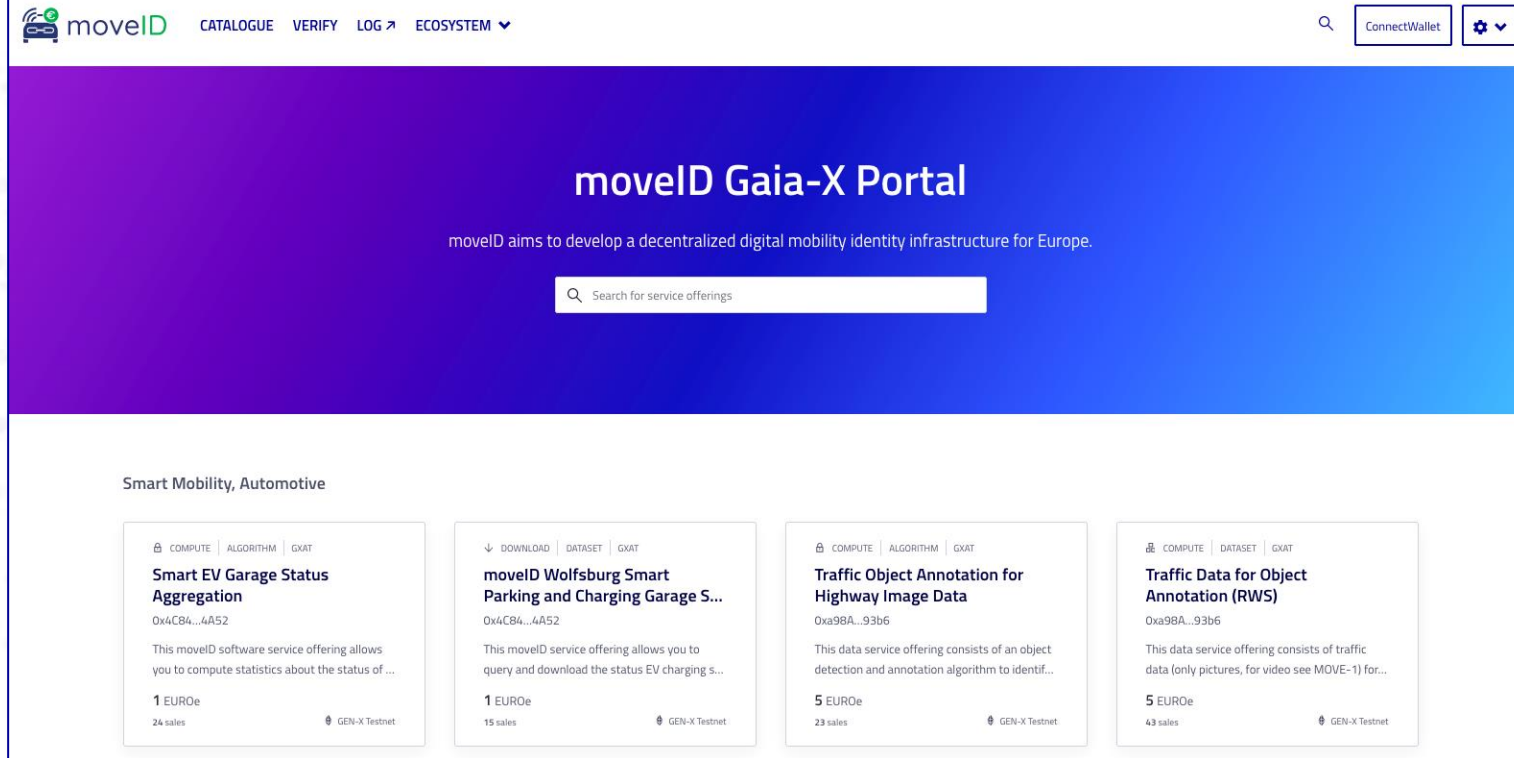
3 results | [Download the results of all services](#) Filters

- Cloud VPS** Gaia-X Compliance Prod 22.10
Aruba Compute, VPS, Virtual Machine Layer mock Czech Republic, Prachatice
Cloud VPS is a service offered by ARUBA
Certif mock 1 Certif mock 2 Certif mock 3 [See more](#)
- Cloud Archive** Gaia-X Compliance Prod 22.10
From CES
Ovhcloud Authentication, Backup, Storage Layer mock
Certif mock 1 Certif mock 2 Certif mock 3 [See more](#)
- Cloud VPS** Gaia-X Compliance Prod 22.10
Aruba Compute, VPS, Virtual Machine Layer mock Germany, Hesse
Cloud VPS is a service offered by ARUBA
Certif mock 1 Certif mock 2 Certif mock 3 [See more](#)



<https://webcatalog.aster-x.demo23.gxfs.fr/catalog>

- A catalogue of **Aster-X Located Service Offering** and **Gaia-X Services Offerings** from CES
 - **Cloud Service Offering** and **Data Products** from the Aster-X Ecosystem
 - Aster-X Ecosystem is extending the Gaia-X Trust-Framework 22.10 to implement Located Service Offering and Data Products.
- Presentation of the catalogue
 - The catalogue is operated by the Aster-X Ecosystem and contains 200+ offerings.
 - Anybody can browse the catalogue, only participant from the Aster-X Ecosystem can login and interact with the items of the catalogue



moveID aims to develop a decentralized digital mobility identity infrastructure for Europe.

Search for service offerings

Smart Mobility, Automotive

Service Name	Category	Price	Sales
Smart EV Garage Status Aggregation	COMPUTE ALGORITHM GXAT	1 EUROe	24 sales
moveID Wolfsburg Smart Parking and Charging Garage S...	DOWNLOAD DATASET GXAT	1 EUROe	15 sales
Traffic Object Annotation for Highway Image Data	COMPUTE ALGORITHM GXAT	5 EUROe	23 sales
Traffic Data for Object Annotation (RWS)	COMPUTE DATASET GXAT	5 EUROe	43 sales

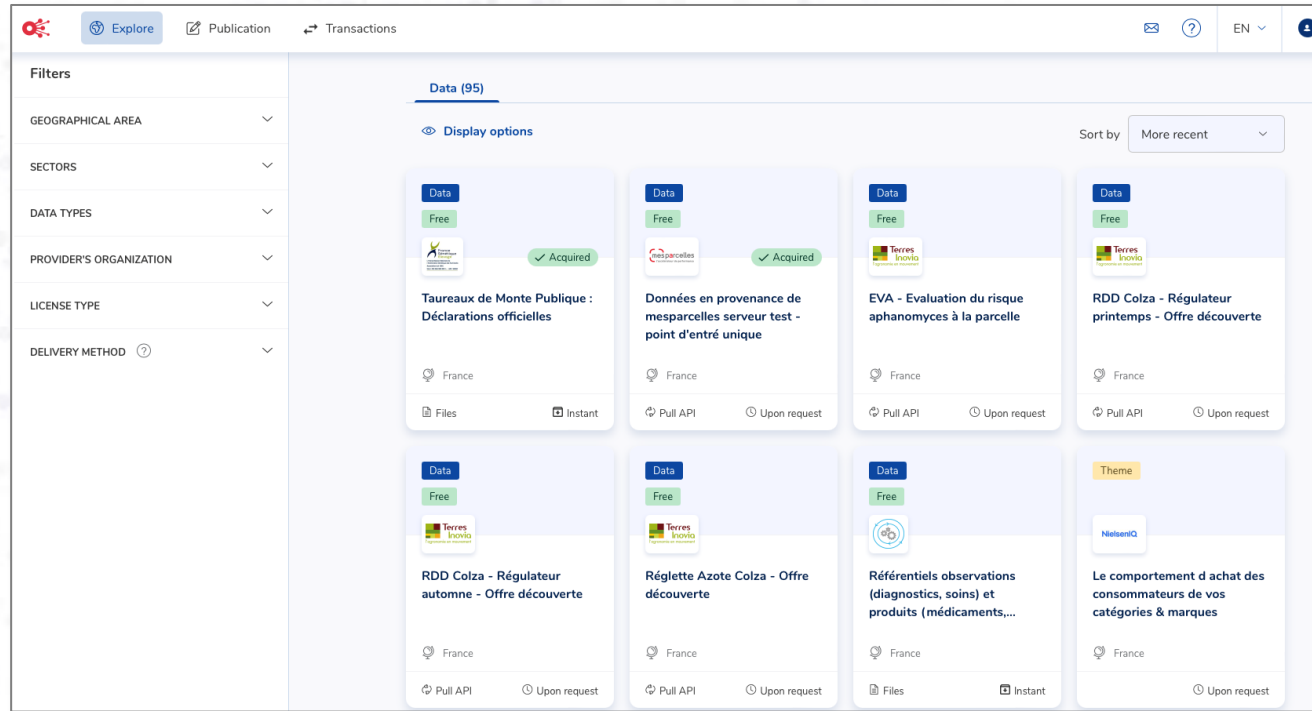


<https://portal.moveid.eu/>

or

visit our booth

- The Gaix-X 4 Future Mobility project family is located in the mobility domain of the German Gaia-X Hub
 - Smart Mobility / City, Automotive
 - Use cases consist of Smart Parking, Zoning, Vehicle Data Collection and more
- Using the Pontus-X catalogue (Ocean Protocol) and Gaia-X Digital Clearing Houses
 - Operated by the Pontus-X community
 - KPI(s): 5+ services published to CES v1



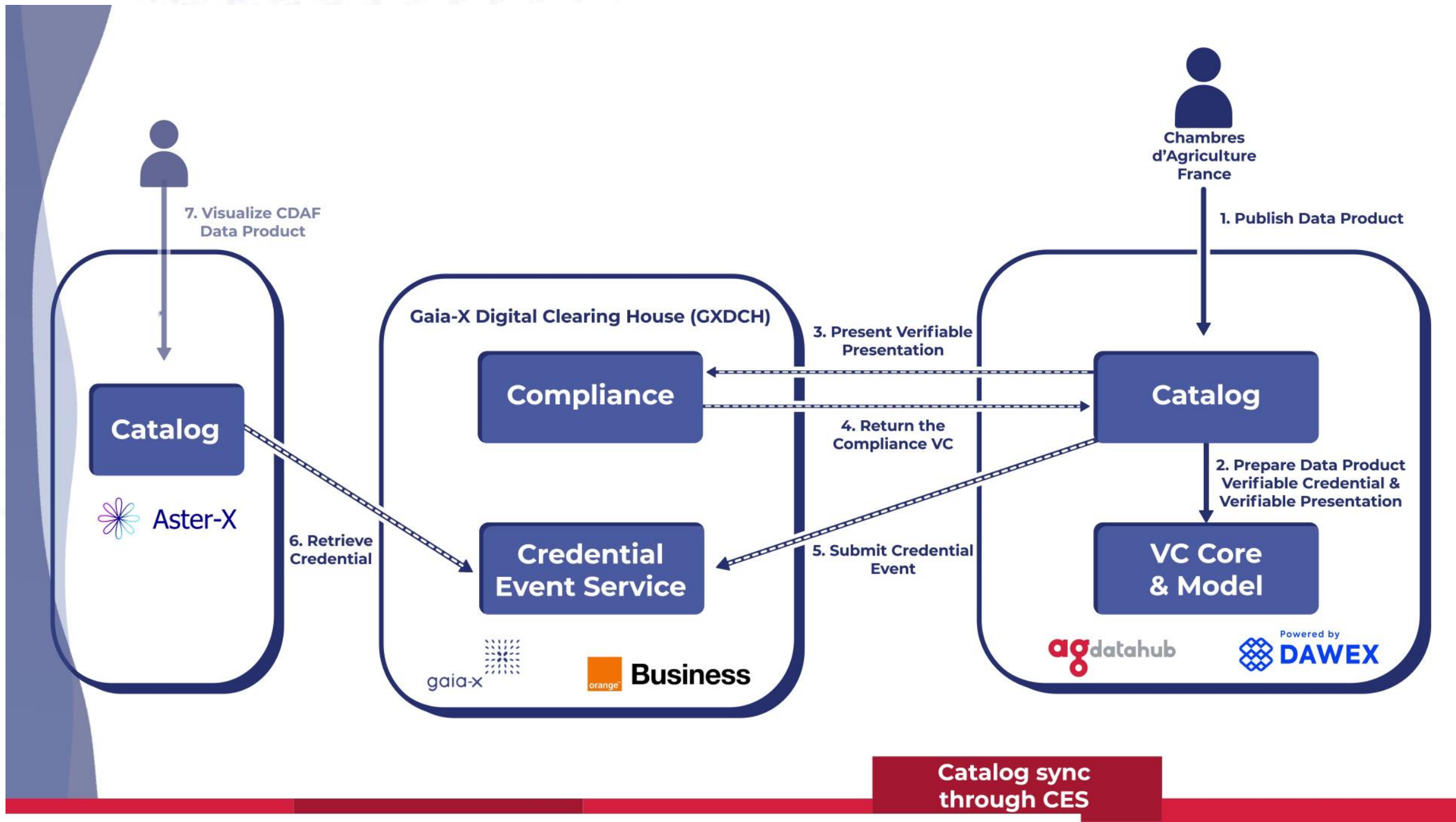
visit our booth

or

<https://agdatahub.eu>

<https://platform.api-agro.eu/members/search>

- Agdatahub Agricultural and Agrifood Data Product Catalog
 - Available Data Products :
 - upstream agriculture : decision-support tools, agro-supplies, machinism,
 - Downstream agri-food : tracability, scoring, carbon impact
 - Sectors : Cattle, Field Crops, Wine
 - Agdatahub is extending the Gaia-X Trust-Framework 22.10 and 23.10 to implement Data Products.
- Presentation of the catalogue
 - The catalog is operated by Agdatahub
 - 95 Data Products on the public catalog (+ private catalogs)
 - It's necessary to be a member of the dataspace for browsing the catalog and interacting on items of this catalog
 - Free registration to get access to Data Products with an opendata licence











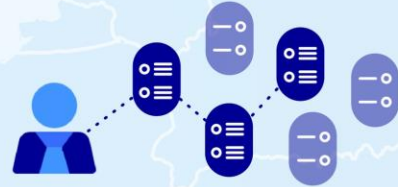























Catalog sync through CES

Structura-X



Structura-X
powered by Gaia-X



	POC   federated multi-region cloud roaming	 POC   federated resource expansion
Business Case Application	 	
Kubernetes Cluster Orchestrator/Federator	 	
CSP Federation	     	      
IXP Federation	  Madrid  Frankfurt	 Turin  Milan Merate   Amsterdam

CISPE CATALOGUE  gaia-x GXDCH

slido

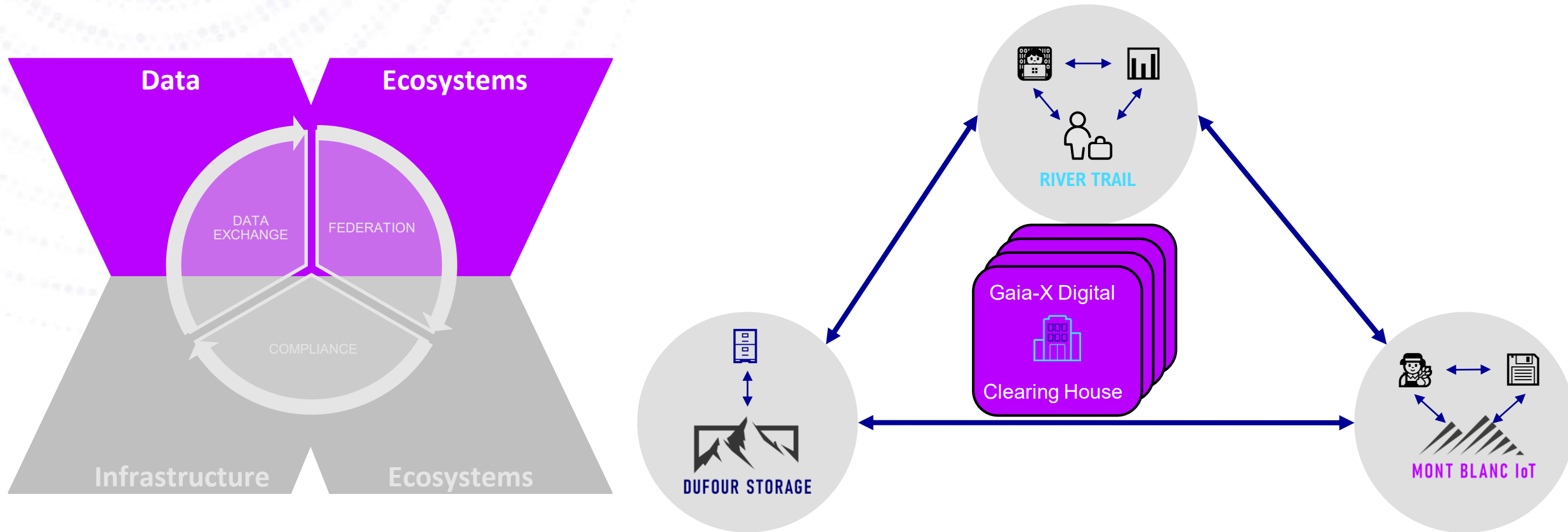


How can we foster wide contribution?

① Start presenting to display the poll results on this slide.

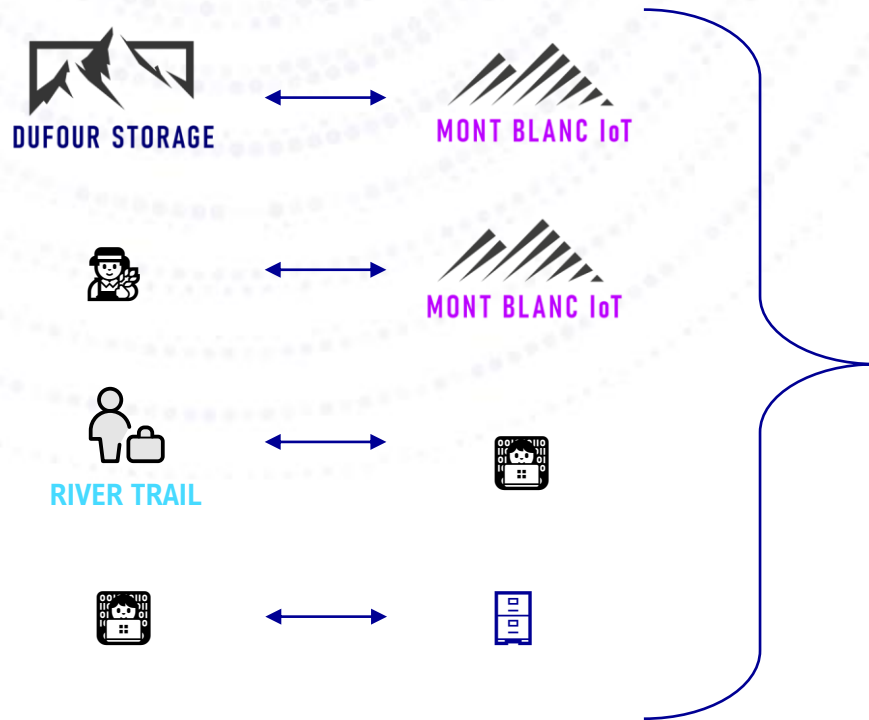
Accelerate your business with automated policies negotiation

Alice , a marketing research  employee from from RiverTrail wants to process Bob the farmer  Data  from Mont Blanc IoT stored on a cloud storage  from Dufour Storage.



Accelerate your business with automated policies negotiation

Alice , a marketing research  employee from from RiverTrail wants to process Bob the farmer  Data  from Mont Blanc IoT stored on a cloud storage  from Dufour Storage.



Policy negotiation everywhere

- Contract / legally binding agreement
 - Buying a house in a notarial's office
 - Buying a soda in a vending machine
- Access control / Usage control
 - Standard Read/Write/Execute access
 - Data processing purpose negotiation and enforcement
- Rights delegation
 - To a legal representative
 - To an employee
 - To a workload / service

Supervised / Automated

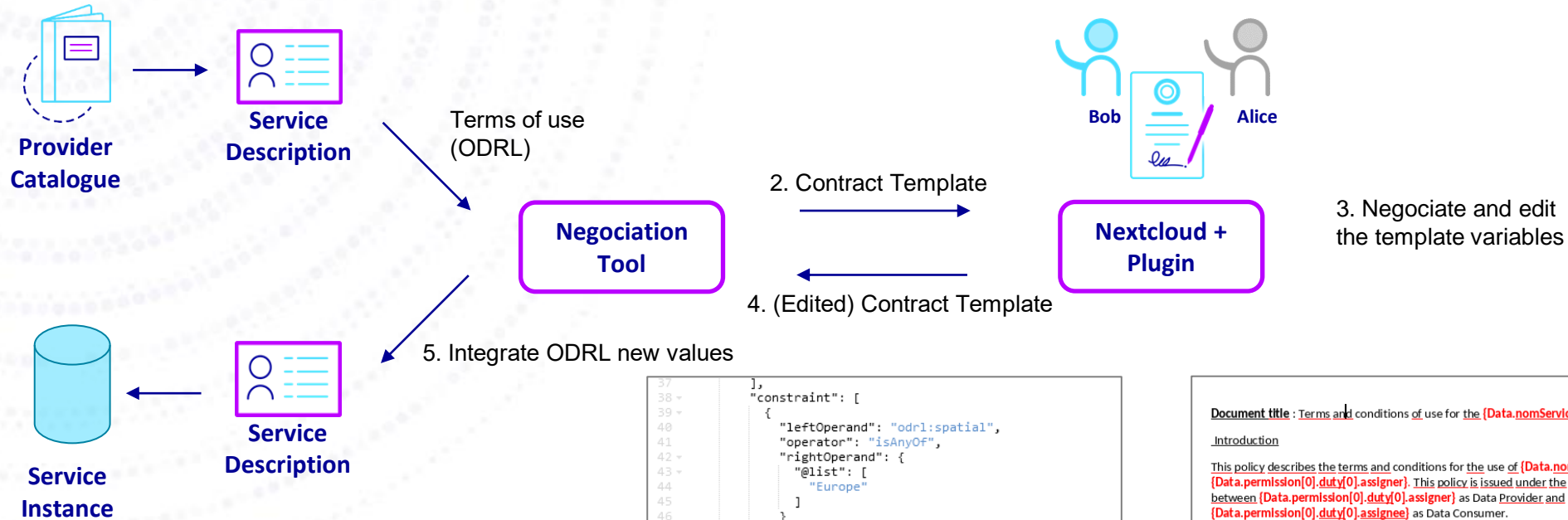
- The procedures to establish an agreement.
- The policy rules reasoning to reach an agreement.

Aster-X Supervised Contracting



Aster-X

powered by Gaia-X



```
37 ],
38 -   "constraint": [
39 -     {
40 -       "leftOperand": "odrl:spatial",
41 -       "operator": "isAnyOf",
42 -       "rightOperand": {
43 -         "@list": [
44 -           "Europe"
45 -         ]
46 -       },
47 -     },
48 -     {
49 -       "leftOperand": "odrl:industry",
50 -       "operator": "isAnyOf",
51 -       "rightOperand": {
52 -         "@list": [
53 -           "Technology"
54 -         ]
55 -       },
56 -     },
57 -     {
58 -       "leftOperand": "odrl:product",
59 -       "operator": "isAnyOf",
60 -       "rightOperand": {
61 -         "@list": [
62 -           "Financial data"
63 -         ]
64 -       },
65 -     },
66 -     {
67 -       "leftOperand": "dateTime",
68 -       "operator": "lt",
69 -       "rightOperand": {
70 -         "@value": "2025-09-15",
71 -         "@type": "xsd:date"
72 -       }
73 -     }
74 -   ]
75 - }
```

Document title: Terms and conditions of use for the (Data.nomService) service.

Introduction

This policy describes the terms and conditions for the use of (Data.nomService) Data provided by (Data.permission[0].duty[0].assigner). This policy is issued under the terms of the licence agreement between (Data.permission[0].duty[0].assigner) as Data Provider and (Data.permission[0].duty[0].assignee) as Data Consumer.

Clause 1: Permission to use

- 1.1. Data usage: (Data.permission[0].duty[0].assignee) is authorised to use the data from the dataset (Data.nomService).
- 1.2. Payment Terms: (Data.permission[0].duty[0].assignee) agrees to pay a sum of (Data.permission[0].duty[0].action[0].refinement[0].rightOperand.@value) Euros to (Data.permission[0].duty[0].assigner) for the use of the data. This payment is due in accordance with the terms specified in this agreement.
- 1.3. Policy Renewal: (Data.permission[0].duty[0].assignee) agrees to comply with the next applicable policy, which will be specified in the following policy, accessible at: (Data.permission[0].duty[1].target).

Clause 2: Usage constraints

- 2.1. Geographical location: (Data.permission[0].duty[0].assignee) may only use the data in the following regions: (Data.permission[0].constraint[0].rightOperand.@list[0]).
- 2.2. Allowed sector of industry: (Data.permission[0].duty[0].assignee) is allowed to use the data only in the industrial sector of (Data.permission[0].constraint[1].rightOperand.@list[0]).
- 2.3. Authorised context: (Data.permission[0].duty[0].assignee) is authorised to use the data only in the context of (Data.permission[0].constraint[2].rightOperand.@list[0]).
- 2.4. Date limit: Use of the data is authorised until (Data.permission[0].constraint[3].rightOperand.@value).

Policy example

- As a provider, I want my customer to be located in Alicante, Spain or Brussels, Belgium.

```
{ "@type": "Policy",  
  "permission": [ {  
    "constraint": [ {  
      "leftOperand":  
        "$.credentialSubject.gx:legalAddress.gx:countrySubdivisionCode",  
      "operator": "http://www.w3.org/ns/odrl/2/in",  
      "rightOperand": ["ES-A", "BE-BRU"],  
      "rightOperandReference": "gx:LegalParticipant"  
    } ]  
  } ]  
... } ]  
}
```

Ontology

- It's the *franca lingua*
- Information model
- Credential format
- Grammar and Vocabularies









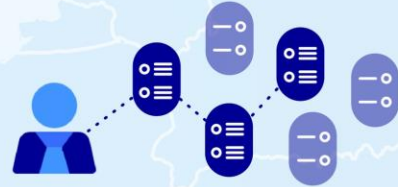





















More in the Tech Theater !

Structura-X



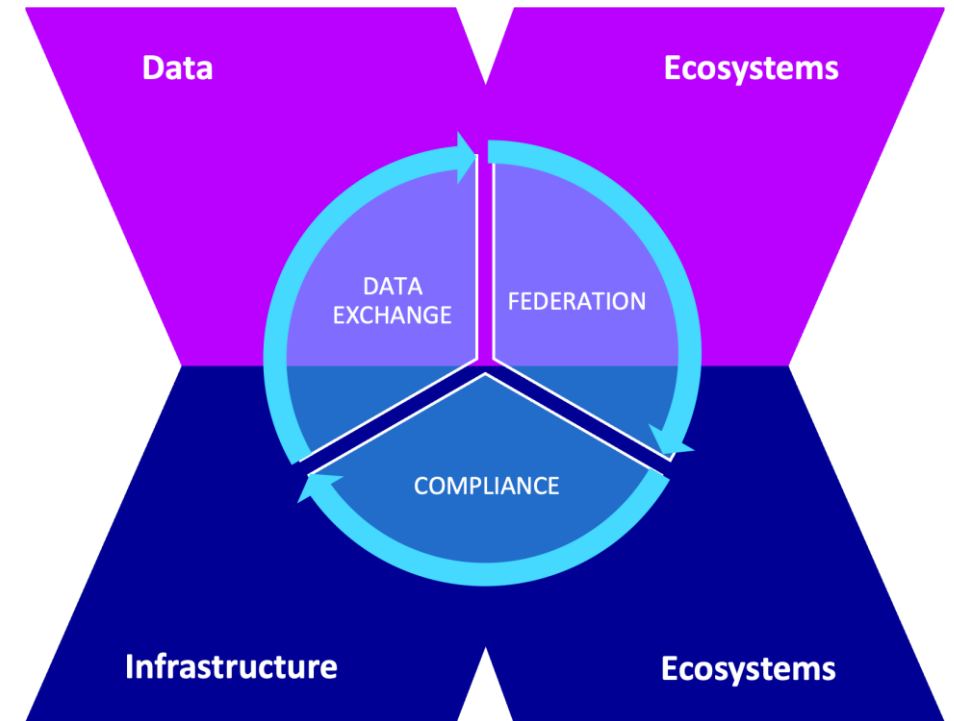
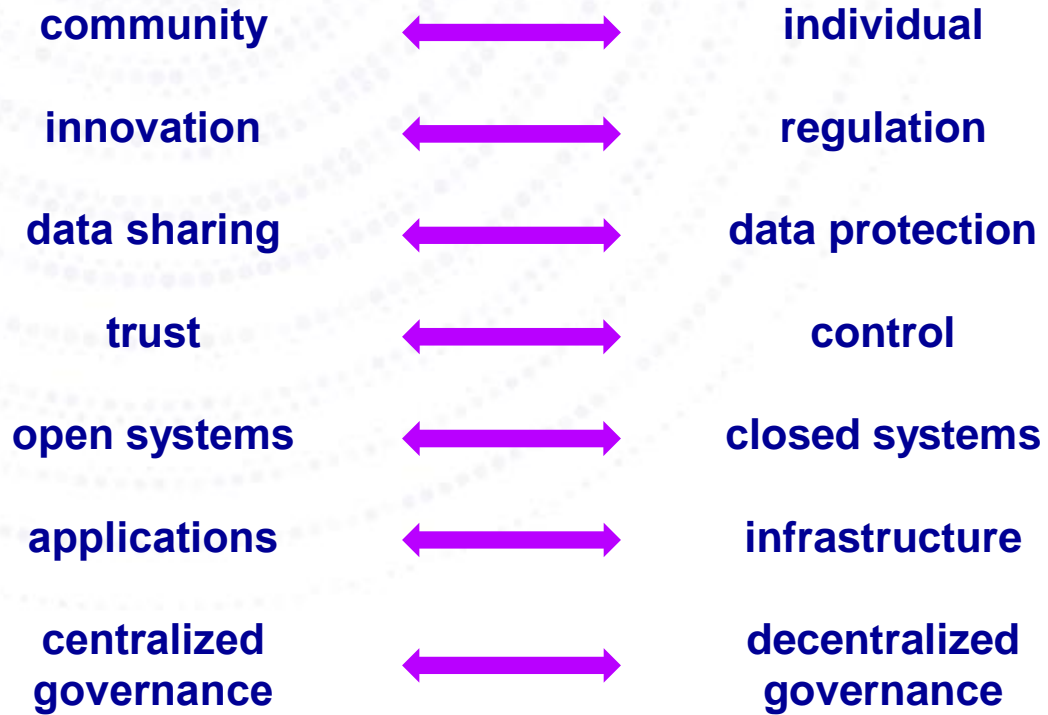
Structura-X
powered by Gaia-X



	POC   federated multi-region cloud roaming	 POC   federated resource expansion
Business Case Application	 	
Kubernetes Cluster Orchestrator/Federator	 	
CSP Federation	     	      
IXP Federation	  Madrid  Frankfurt	 Turin  Milan Merate

CISPE CATALOGUE  gaia-x GXDCH

Dataspaces as a balancing instrument



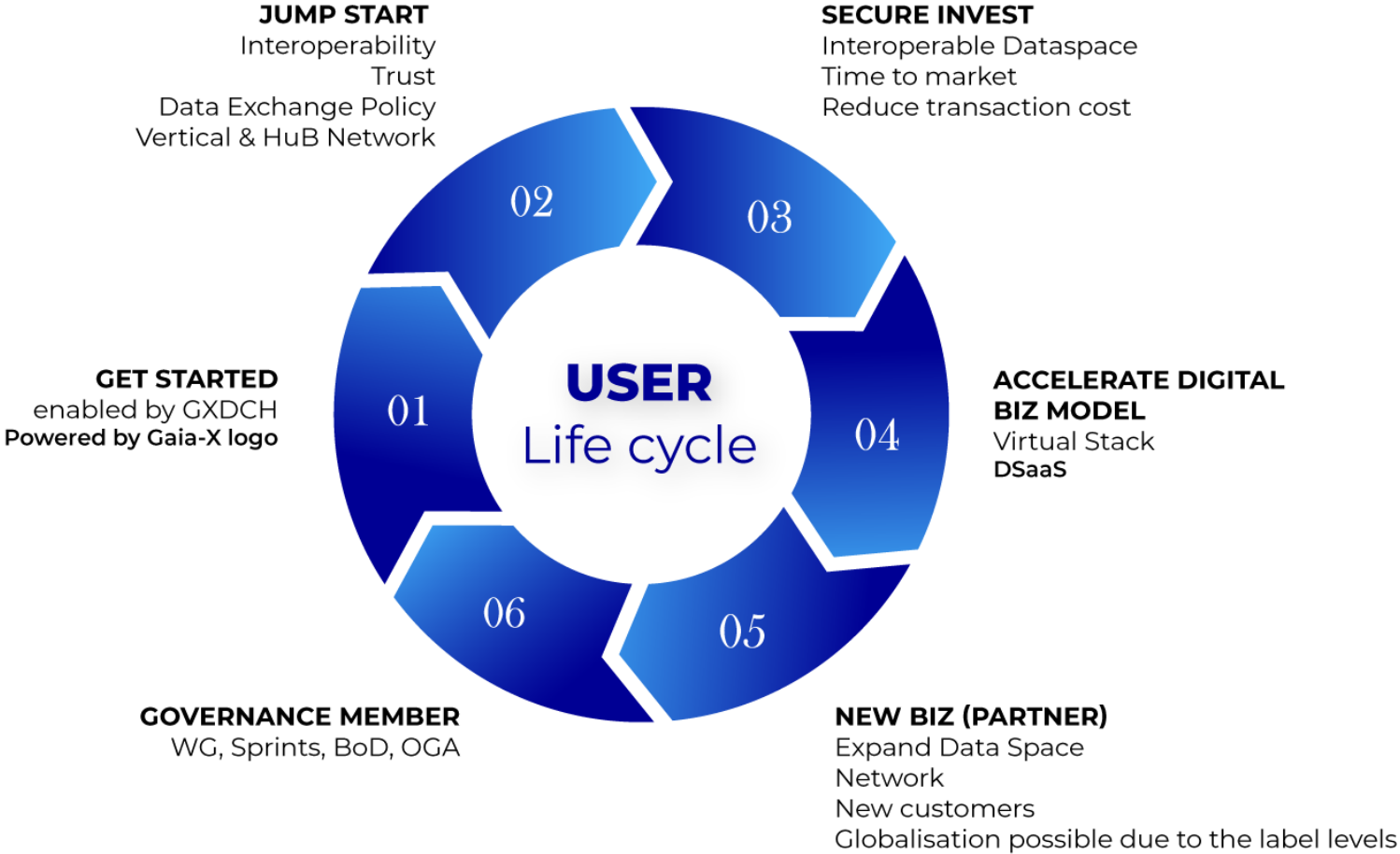
Non exhaustive list of contributors and users of Gaia-X



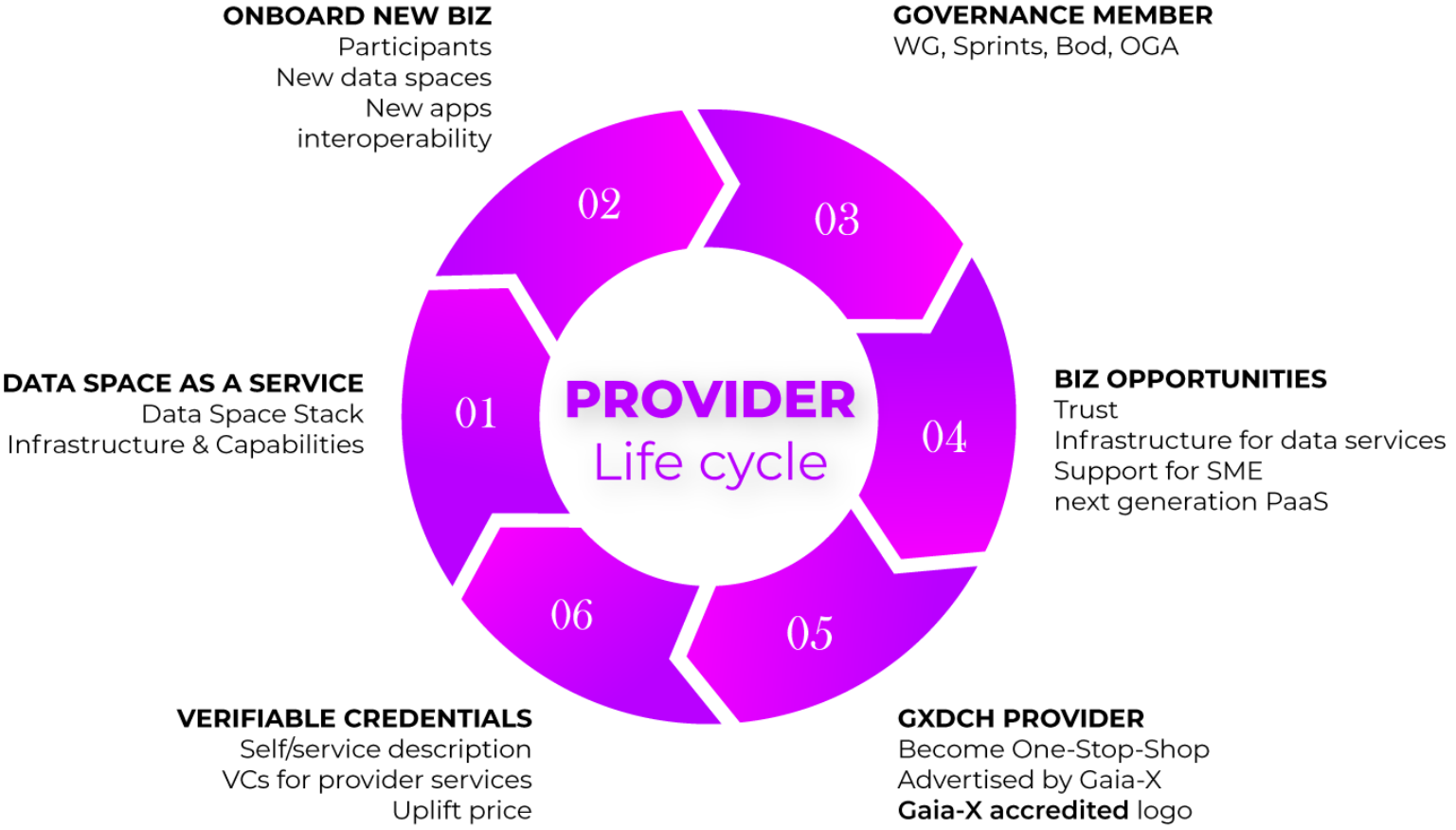
Projects & Catalogues		GXDCH	Source code
Pontus-X	Agdatahub	aruba	DeltaDao
EuProGigant	Structura-X	T-Systems	GXFS-FR
COOPERANTS	Aster-X	Orange*	Arsys
Gaia-X4future mobility	Prometeus-X	Gaia-X Spain*	Aruba
CISPE	Catena-X	TIM*	TU Vienna

*up and running, accreditation in progress

User Life cycle

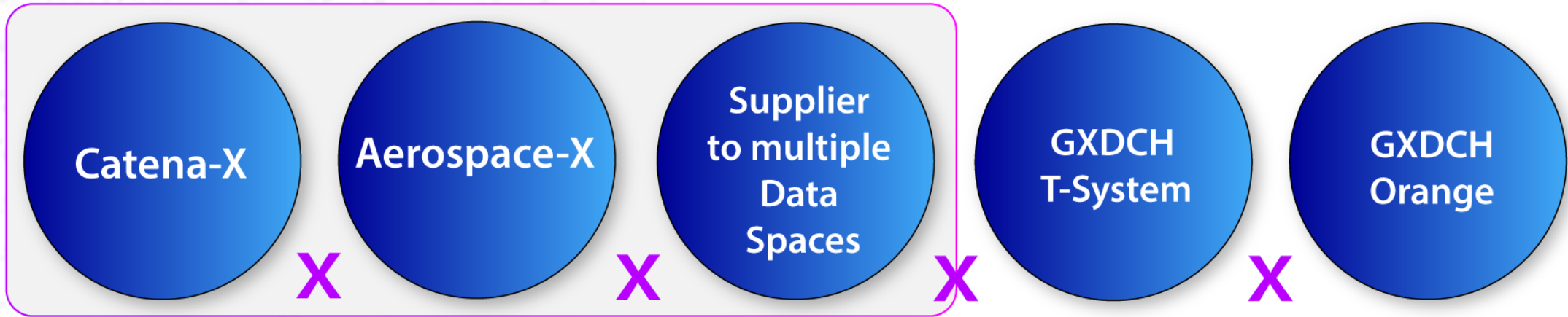


Provider Life cycle



From DataSpace to Ecosystem

MANUFACTURING-X ECOSYSTEM



- Traceability
- Materials
- Sustainability
- Carbon footprint
- Automotive industry requirements...

- Traceability
- Materials
- Sustainability
- Carbon footprint
- Aerospace industry requirements ...

One trusted registration enables to contribute to multiple DataSpaces

Any GXDCH compliant service registration can be shared within the Gaia-X Ecosystem catalogues under the sole control of the service owner

No matter what GXDCH is chosen by the DataSpace will enable Data Space interoperability and finally build an EcoSystem

slido



Audience Q&A Session

① Start presenting to display the audience questions on this slide.

Challenges

1

- Emerging technology & market

- Logistically complex
- Interoperability testing is critical

2

- Achieving operational efficiency & risk reduction

- Operation of multiple platform
- Supplier lock-in / Inability to evolve the solution
- Inability to add new partners

3

- Regulatory complexity

- Local regulations
- International regulations
- Conformity Assessments per vertical

What can Gaia-X bring you as Providers and Consumers?

1

- Bootstrapping
 - Truly global decentralised solution and local prices → **no lock-in, no lock out**

2

- Insurance
 - No requirement to change existing stack → you **control your ROI** over time
 - Very small technical footprint for adoption of the Gaia-X standards → **cost effective**

3

- Active Management
 - Find your next local partners → **scalable**
 - Take educated decisions for your business → **self-determination**

What you'll see in this session

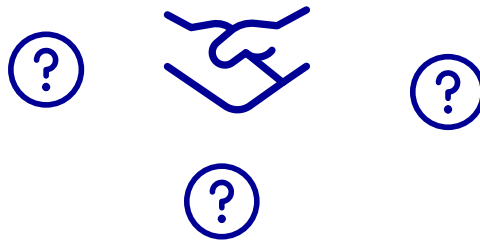
1

- How Gaia-X enables you to make your services and data product offerings **discoverable and visible**.



2

- How Gaia-X eases contracting and technical enforcement to help you to control data usage policies with **unforeseen partners**.



3

- How Gaia-X provides policy rules and measurement standards to help you make **your data space interoperable**.



Agenda

1

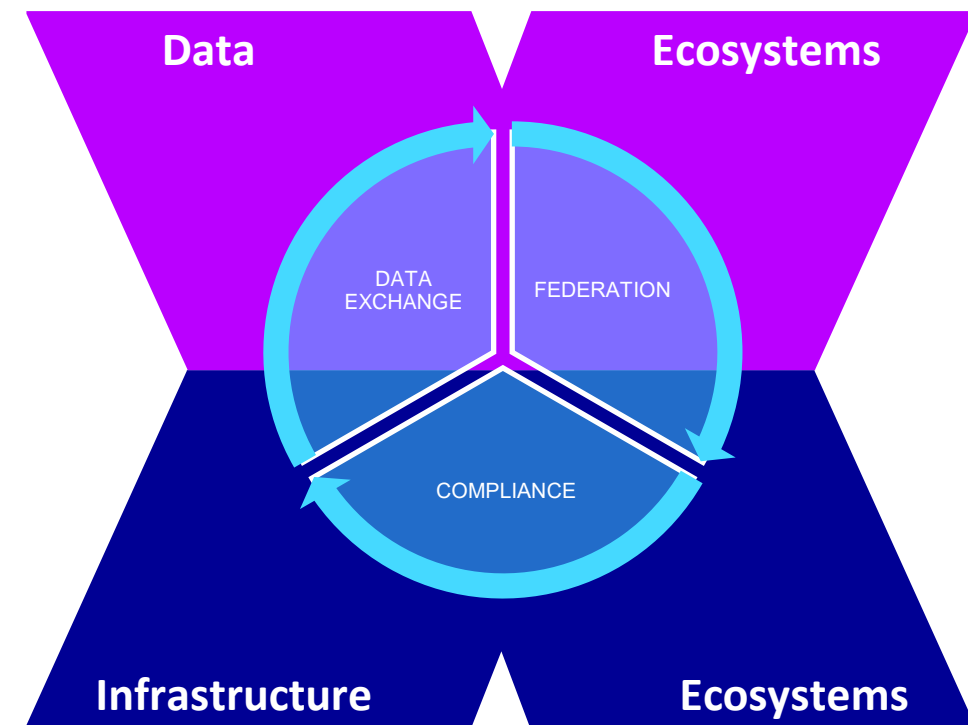
- How to get started: Presentation of the Gaia-X Digital Clearing House (GXDCH).

2


- Easily advertise your services and data products in the Gaia-X catalogues.













3














- Accelerate your business with supervised/automated contract negotiation based on Gaia-X Compliance.


















The scenario: educated decisions

Alice , a marketing research  employee from from RiverTrail wants to process Bob the farmer  Data 
from Mont Blanc IoT stored on a cloud storage  from Dufour Storage.

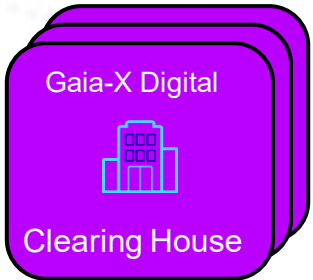
Who is MontBlanc IoT ?
Does MontBlanc IoT  allow to use of Dufour Storage ?
Has Alice  the rights to contract ?
What is the cost to move out of Dufour Storage ?
Where can I find data  / service ?
Can I use data  for marketing  and advertising ?
Has Alice the right to process data ?
How much cost the data ?
...

Who is Dufour Storage ?
Can MontBlanc IoT  use its software license on Dufour Storage ?
Who are 's subprocessors?
Can provider  connect to the service  ?
What regulations apply to the service ?
How to advertise 's service ?
How much cost the service ?
Has the service  BCDR ?
How to move data  out of service  ?
...

Who is provider ?
What regulations apply to 's service?
Has provider  legit consent from Bob ?
Does Bob  consent to marketing  processing?
Does the dataset  contain PII or sensitive data?
How to restrict publication/usage of data ?
Has Dufour Storage  access to 's data ?
How Bob  monetises its data ?
How Bob  keeps track of its data  usage?
...

The scenario: Building Blocks

We are here
Live & Running



	GXDCH Services** (Mandatory / Optional)
TAGUS v1 (22.10)	Registry service (Ontology, Trust Anchors, Terms&Conditions)
	Compliance & Notary services (incl. Gaia-X Conformity & Gaia-X Label)
	Wallet & Wizard
LOIRE v2 (23.xx)	Credential Event Service* Catalogues
	Registry service (ODRL Profile) Policy Decision and Enforcement Points.
	Trust Indexes*
	Data Exchange services

Gaia-X Framework	
• Specifications	
• Code	
• Label	

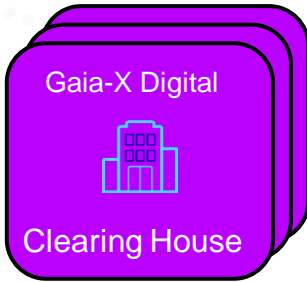
* Already included in TAGUS as optional.

** Not all future services are listed here.

The scenario: Building Blocks



We are here
Live & Running

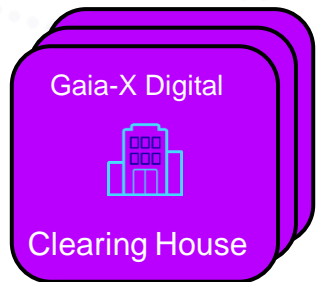


	GXDCH Services** (Mandatory / Optional)	Technical stack
TAGUS v1 (22.10)	Registry service (Ontology, Trust Anchors, Terms&Conditions)	JSON-LD, RDF, W3C VC, W3C SHACL, Trust Anchors, EBSI
	Compliance & Notary services (incl. Gaia-X Conformity & Gaia-X Label)	W3C SHACL engine, Trusted Data Sources
	Wallet & Wizard	
LOIRE v2 (23.xx)	Credential Event Service* Catalogues	Cloud Event + storage
	Registry service (ODRL Profile) Policy Decision and Enforcement Points.	W3C ODRL model & W3C ODRL vocab SEMIC, ...
	Trust Indexes*	X509, maths
	Data Exchange services	

* Already included in TAGUS as optional.
** Not all future services are listed here.

The scenario: Building Blocks

We are here
Live & Running

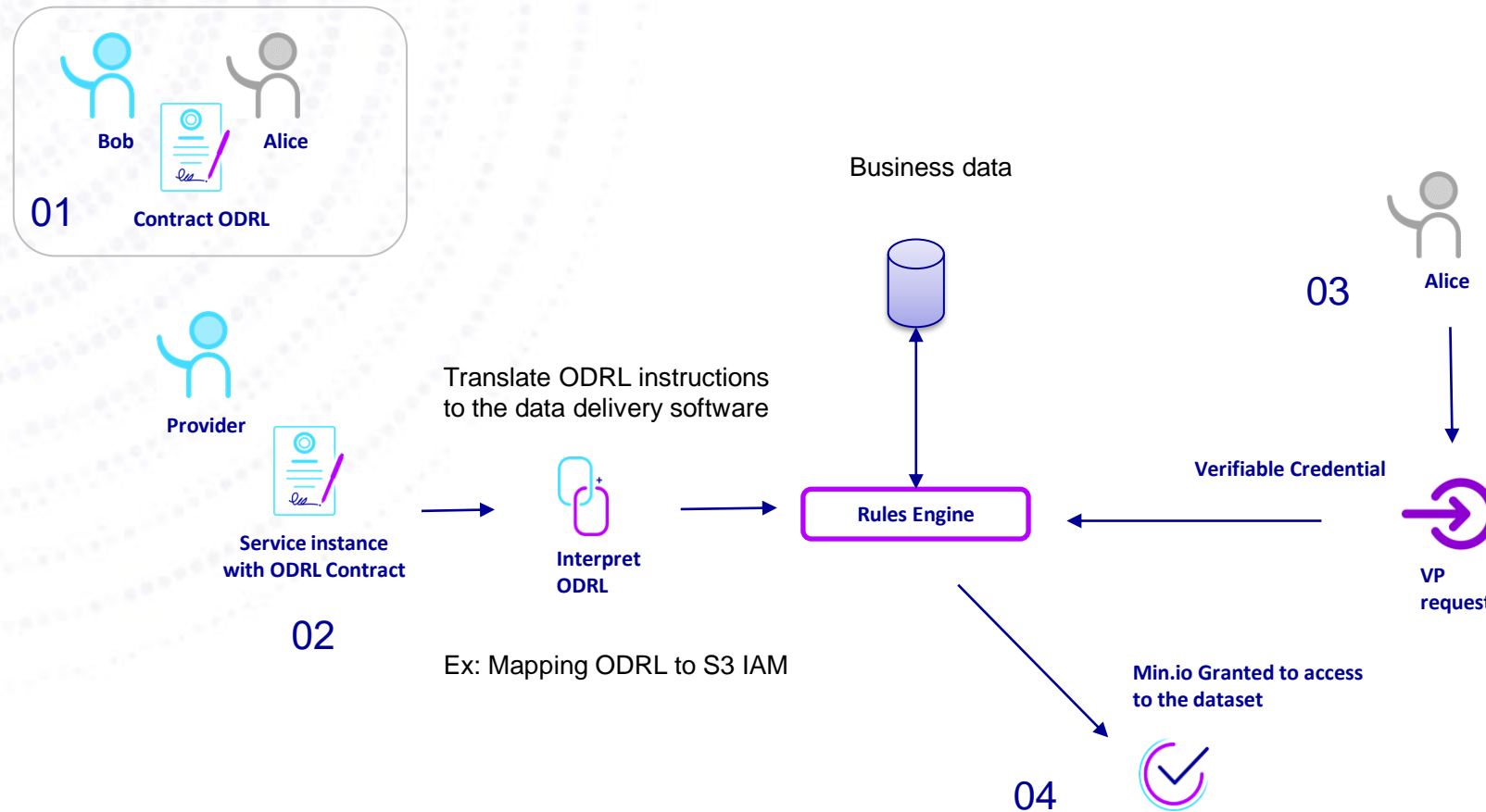


	GXDCH Services** (Mandatory / Optional)	Building Blocks
TAGUS v1 (22.10)	Registry service (Ontology, Trust Anchors, Terms&Conditions)	Data products, Services and Participants descriptions, Trust Anchors, Ecosystem Governance .
	Compliance & Notary services (incl. Gaia-X Conformity & Gaia-X Label)	Conformity Assessment (Regulatory Compliance)
	Wallet & Wizard	Claim Management
LOIRE v2 (23.xx)	Credential Event Service* Catalogues	Publication and discovery
	Registry service (ODRL Profile) Policy Decision and Enforcement Points.	Access & Usage policy and control, Contractual Framework .
	Trust Indexes*	Provenance & Traceability
	Data Exchange services	Data Exchange, Data Sharing Governance

* Already included in TAGUS as optional.

** Not all future services are listed here.

Aster-X – Machine Readable Agreements



- * A service translate ODRL instructions from the service instance description to the data delivery software.
- * The rules engine check the validity of the policy rules according to business data and the information presented by Alice.