
gaia-x
market-x
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In partnership with gaia-x
Hub Austria

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Gaia-X Framework & Gaia-X Clearing Houses

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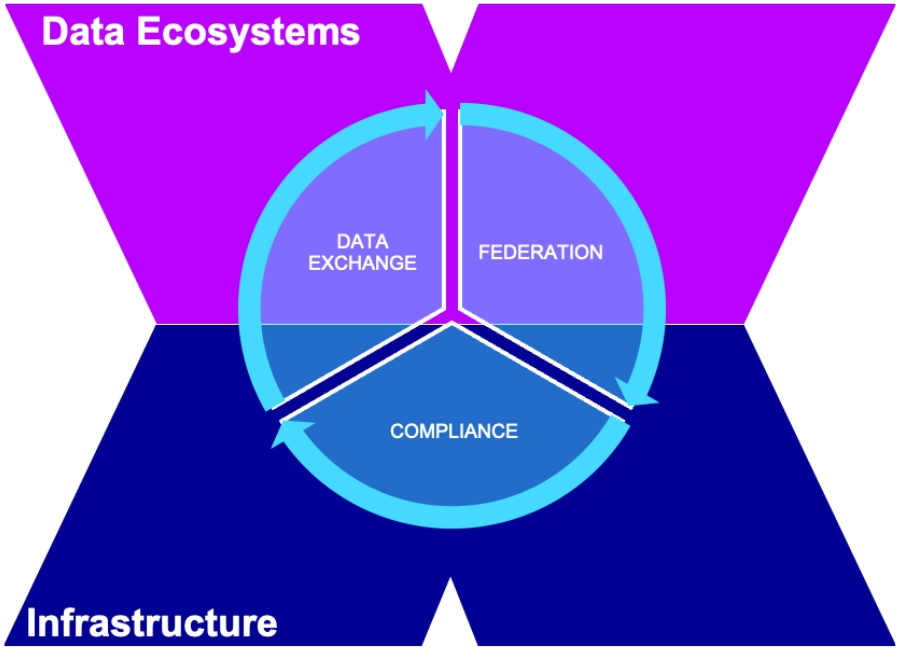
Gaia-X

What is it?

How can I use it?



How does it work?

What's the value for me?

Gaia-X Framework

Gaia-X aims to connect the Data and Infrastructure Ecosystems and relies on 3 conceptual pillars to achieve that:

- Gaia-X Compliance: Decentralized services to enable objective and measurable trust
- Data Spaces / Federations: Interoperable & portable (Cross-) Sector data-sets and services
- Data Exchange: Anchored contract rules for access and data usage

In concrete terms, for each of these pillars there are 3 types of deliverables: Functional specifications, Technical Specifications and Software. This page offers a landscape of what is available and what are the planned releases. Click on the "Take the tour" button to explore the details of the landscape.

First time here ? Take the tour

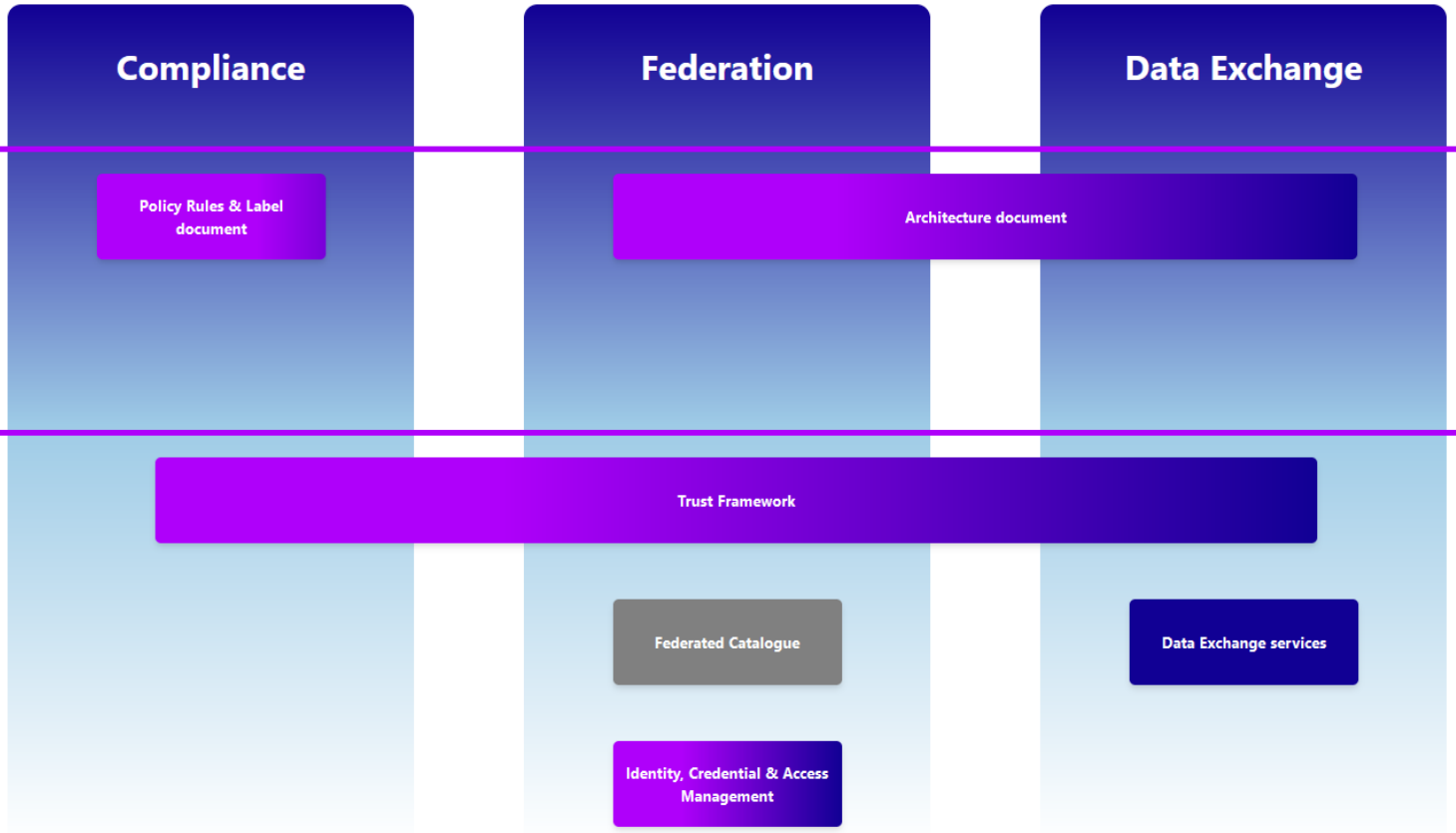
Specifications | Blueprints | Software | Clearing House

Functional Specifications

These documents describe how Gaia-X works in terms of high-level functionality. The technical Architecture document to describe what a federation is while the Policy Rules document contain the common set of policies and rules that a federation can abide to.

Technical Specifications

These documents describe the technical requirements of Gaia-X. The Trust Framework document describes the minimum set of attributes and rules participants need to provide in order to be Gaia-X Compliant. The other technical specifications contribute on how the technology should be implemented in the different areas of a federation's functionality.



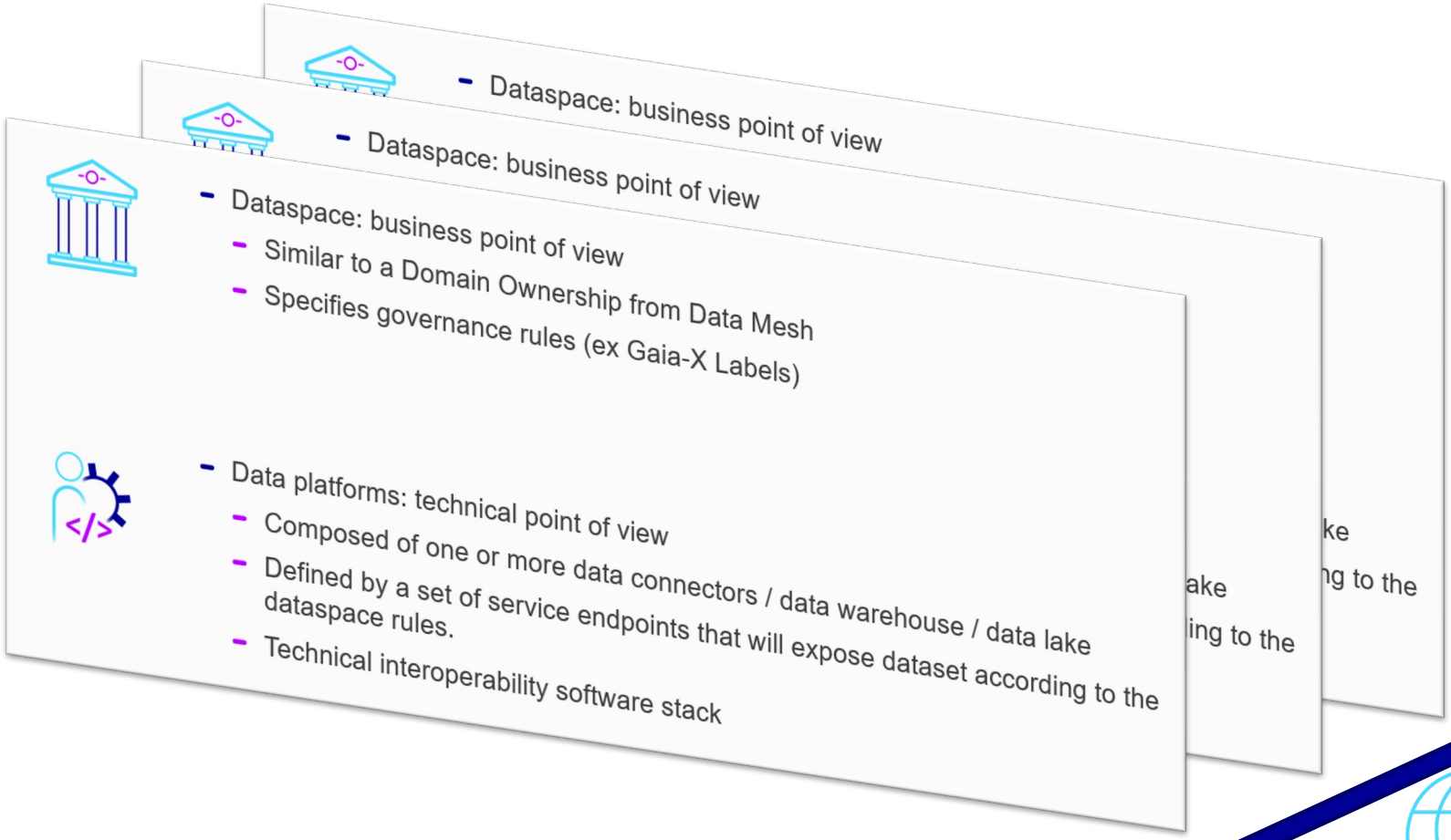
Dataspaces and data platforms

- Dataspace: business point of view
  - Similar to a Domain Ownership from Data Mesh
  - Specifies governance rules (ex Gaia-X Labels)

- Data platforms: technical point of view
  - Composed of one or more data connectors / data warehouse / data lake
  - Defined by a set of service endpoints that will expose dataset according to the dataspace rules.
  - Technical interoperability software stack

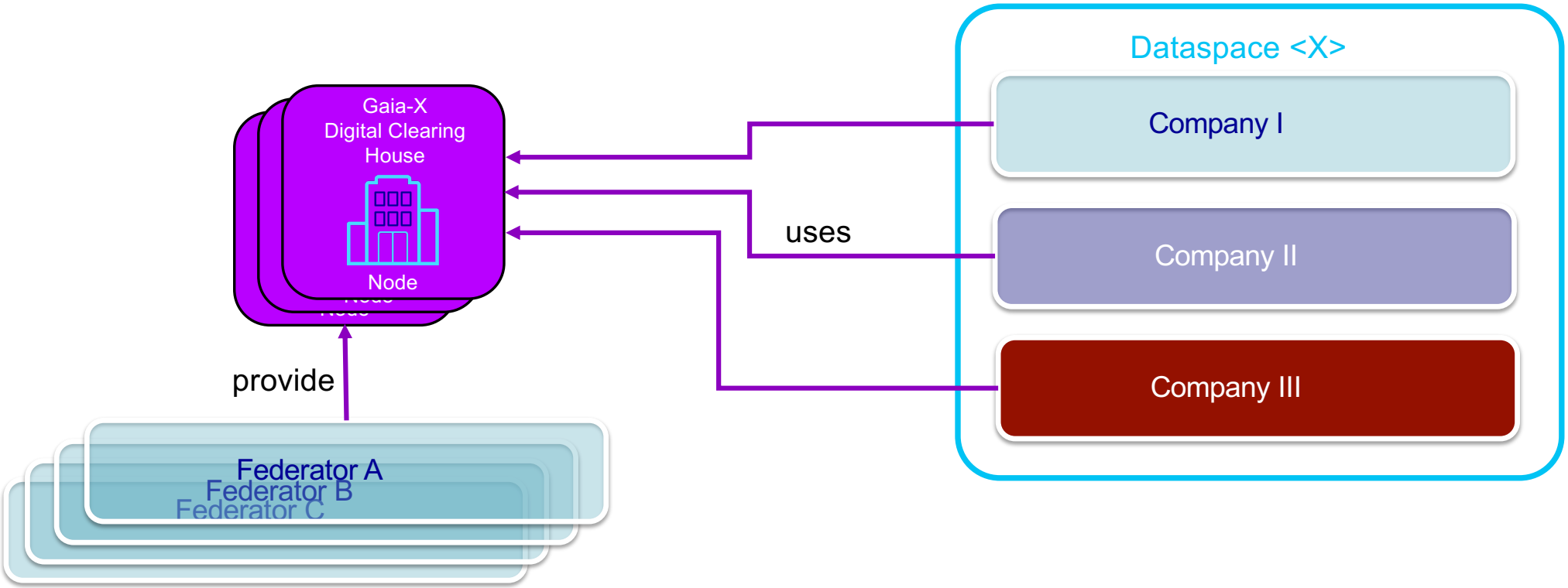
=> A dataspace can span across several data-platforms.
=> A data platforms can be used by several dataspaces.

Gaia-X Trust plane

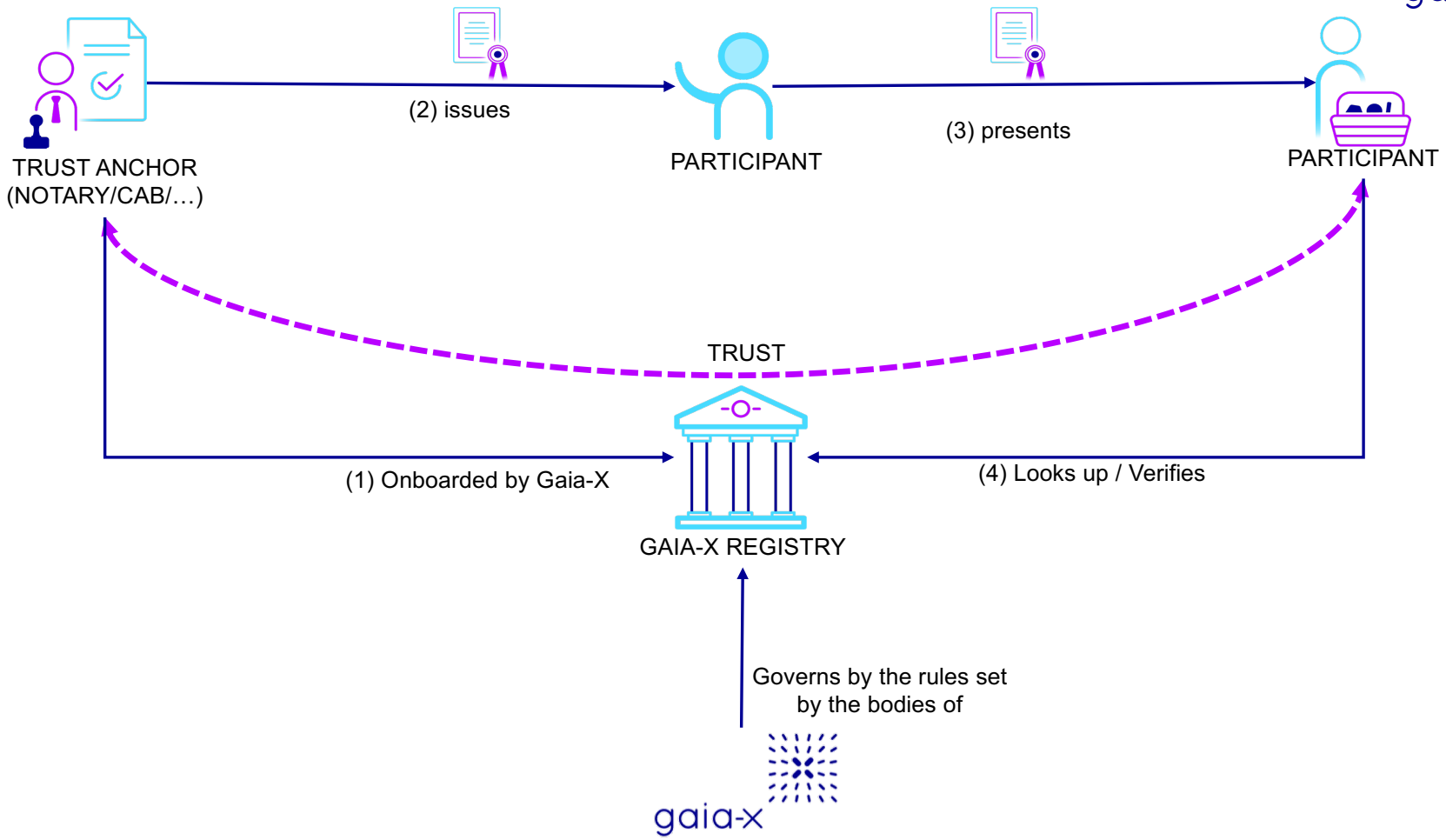


Shared governance rules adopted across dataspaces, operationalised by the GXDCH

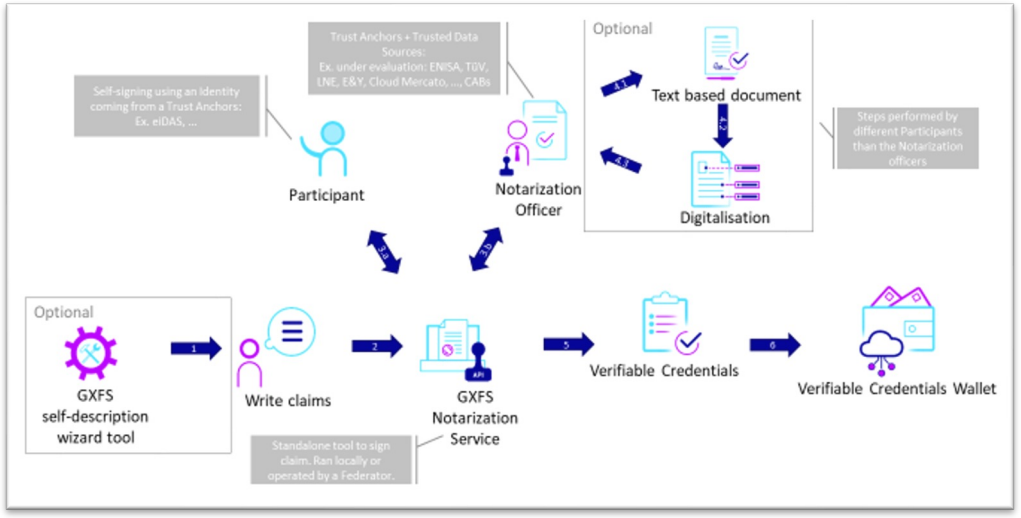
Federations and Gaia-X Digital Clearing Houses



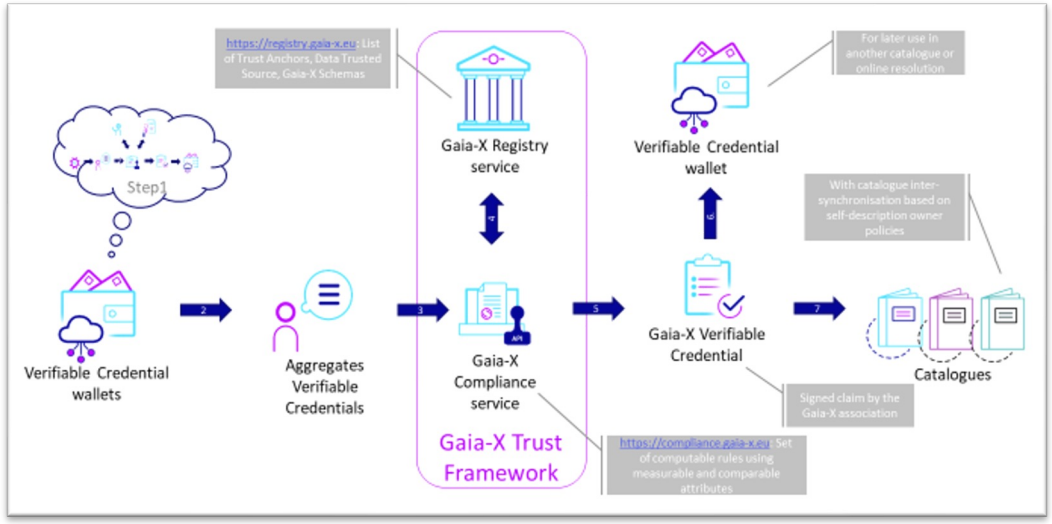
Issuer - Holder - Verifier Trust model



Gaia-X Self-Description workflow

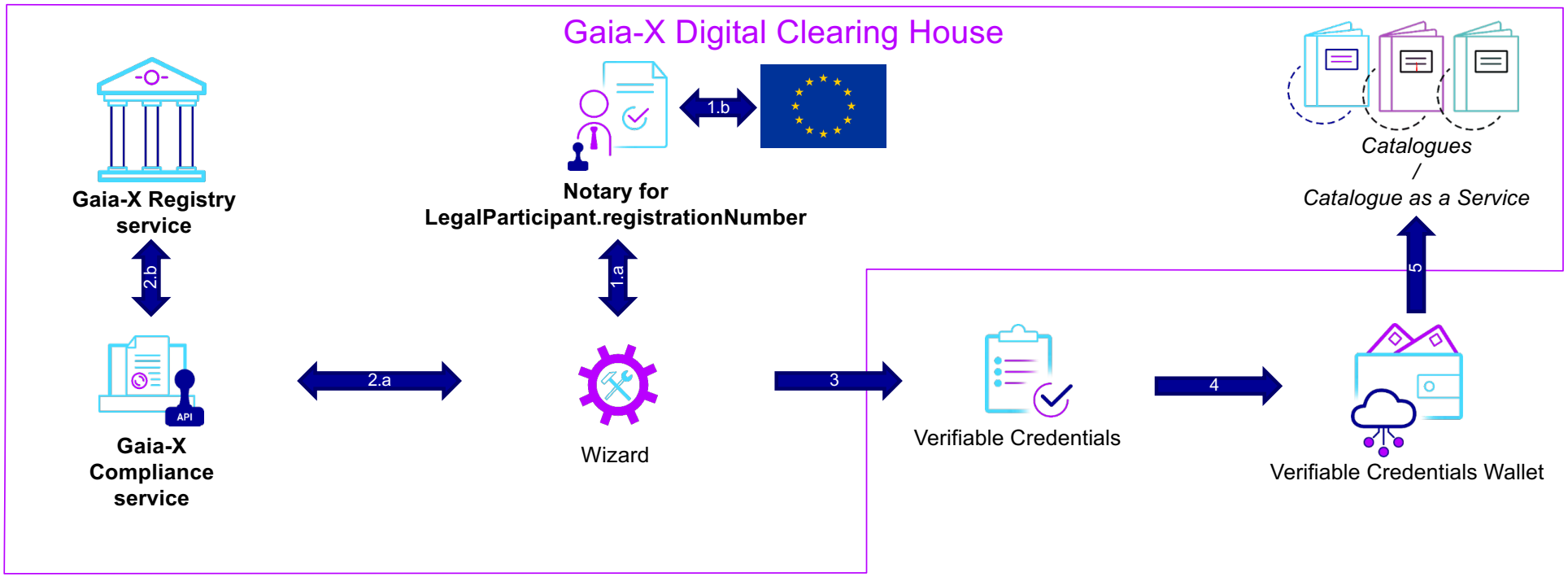


Step1

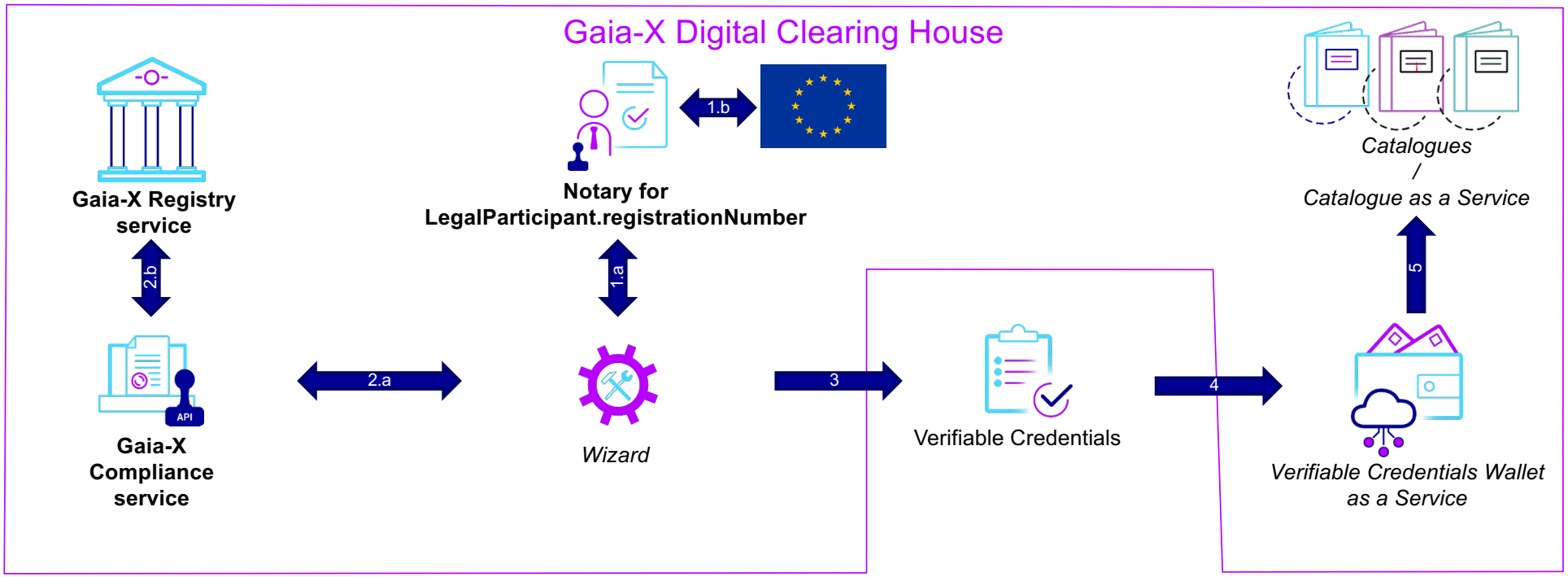


Step2

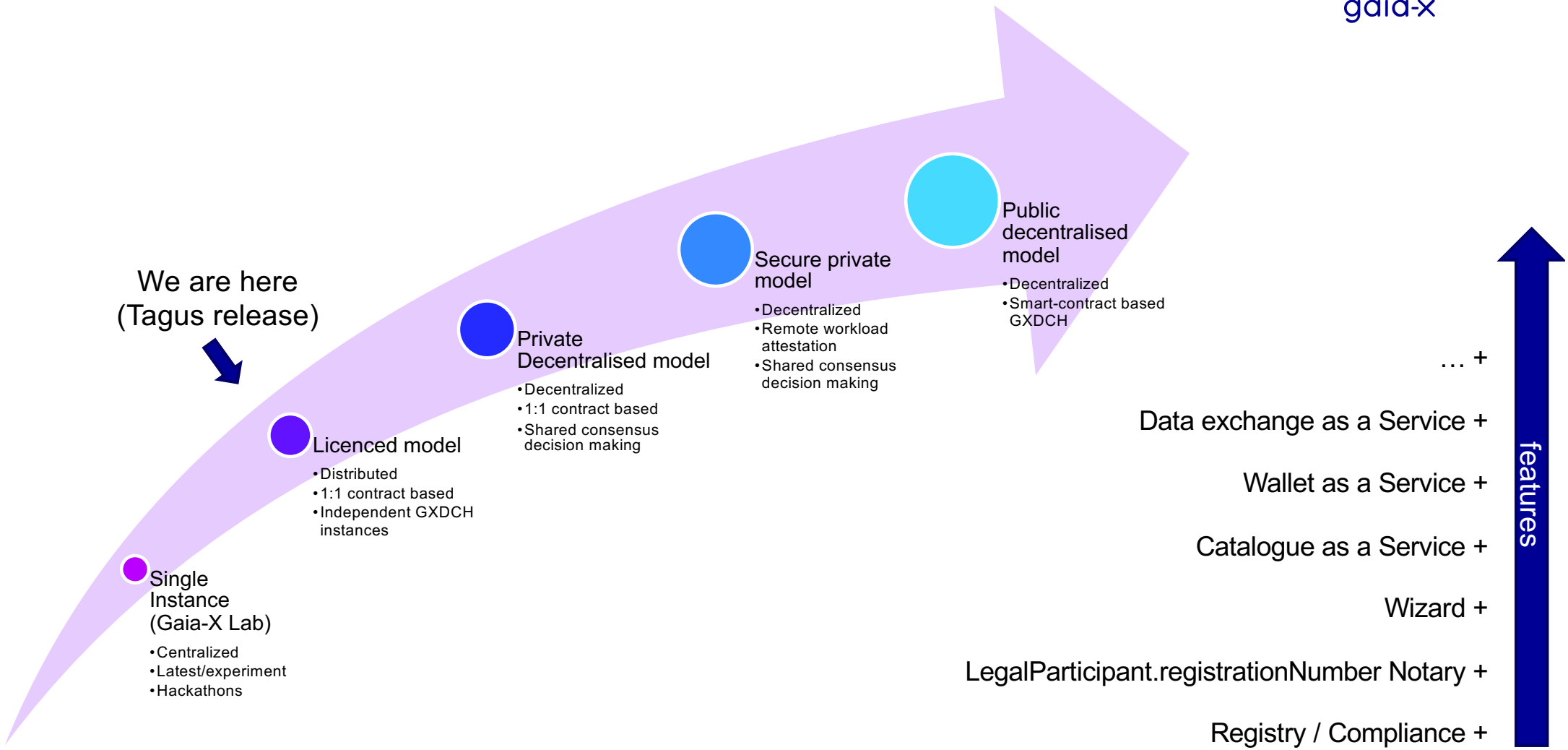
Gaia-X ~~Self-Description~~ compliant Verifiable Credential workflow



Future version will add more services



GXDCH: compliance deployment scenario



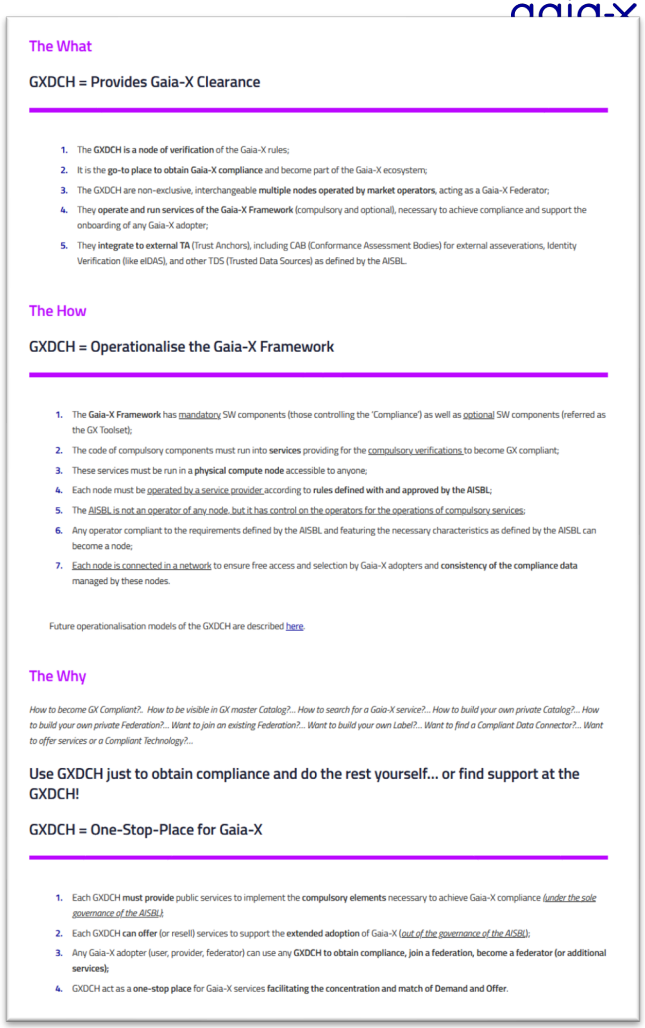
GXDCH: compliance deployment scenario

Dev-to-dev: Summary

Model	Ease for version update	Scalability	Privacy control
Single instance	+++	—	++
Licensed	++	—	+++
Private decentralised model	++	+	–
Secure private model	+	+++	–
Public decentralised model	–	+++	—

In conclusion, all the models above have their pros and cons and are not mutually exclusive. All models will have to be technically validated before being submitted for approval to the Gaia-X Technical Committee.

- https://gaia-x.eu/news/latest-news/gaia-x-compliance-service-deployment-scenario/
- https://gaia-x.eu/gxdch/



The What

GXDCH = Provides Gaia-X Clearance

1. The **GXDCH is a node of verification** of the Gaia-X rules;
2. It is the **go-to place to obtain Gaia-X compliance** and become part of the Gaia-X ecosystem;
3. The GXDCH are non-exclusive, interchangeable **multiple nodes operated by market operators**, acting as a Gaia-X Federator;
4. They **operate and run services of the Gaia-X Framework** (compulsory and optional), necessary to achieve compliance and support the onboarding of any Gaia-X adopter;
5. They **integrate to external TA** (Trust Anchors), including CAB (Conformance Assessment Bodies) for external asseverations, Identity Verification (like eIDAS), and other TDS (Trusted Data Sources) as defined by the AISBL.

The How

GXDCH = Operationalise the Gaia-X Framework

1. The **Gaia-X Framework** has mandatory SW components (those controlling the 'Compliance') as well as optional SW components (referred as the GX Toolset);
2. The code of compulsory components must run into **services** providing for the compulsory verifications to become GX compliant;
3. These services must be run in a **physical compute node** accessible to anyone;
4. Each node must be operated by a service provider according to **rules defined with and approved by the AISBL**;
5. The AISBL is not an operator of any node, but it has control on the operators for the operations of compulsory services;
6. Any operator compliant to the requirements defined by the AISBL and featuring the necessary characteristics as defined by the AISBL can become a node;
7. Each node is connected in a network to ensure free access and selection by Gaia-X adopters and **consistency of the compliance data** managed by these nodes.

Future operationalisation models of the GXDCH are described here.

The Why

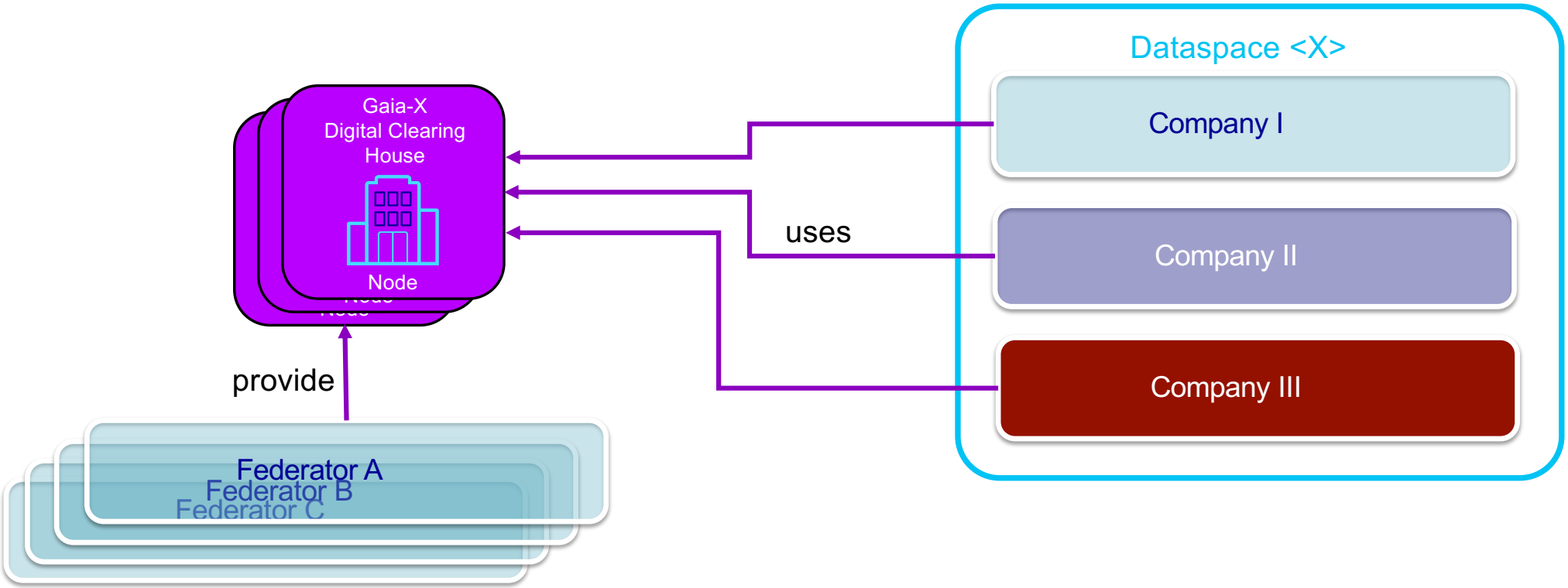
How to become GX Compliant?.. How to be visible in GX master Catalog?.. How to search for a Gaia-X service?.. How to build your own private Catalog?.. How to build your own private Federation?.. Want to join an existing Federation?.. Want to build your own Label?.. Want to find a Compliant Data Connector?.. Want to offer services or a Compliant Technology?..

Use GXDCH just to obtain compliance and do the rest yourself... or find support at the GXDCH!

GXDCH = One-Stop-Place for Gaia-X

1. Each GXDCH **must provide** public services to implement the **compulsory elements** necessary to achieve Gaia-X compliance *(under the sole governance of the AISBL)*
2. Each GXDCH **can offer** (or resell) services to support the **extended adoption** of Gaia-X (*out of the governance of the AISBL*);
3. Any Gaia-X adopter (user, provider, federator) can use any **GXDCH to obtain compliance, join a federation, become a federator (or additional services);**
4. GXDCH act as a **one-stop place** for Gaia-X services **facilitating the concentration and match of Demand and Offer.**

Federations and Gaia-X Digital Clearing Houses



tech-x

- https://gaia-x.eu/tech-x/

(Reminder)

We are looking for one Technical Advisor per:

- ***Lighthouse project***
- ***Vertical Ecosystem***
- ***Hub***

To:

- ***Join the Technical Committee meeting***
- ***Participate to the Gaia-X Tech Deep Dive sessions***
- ***Receive first-hand technical information from the Gaia-X association***
- ***Join the Gaia-X Courses (Gaia-X Academy) and become Gaia-X certified.***

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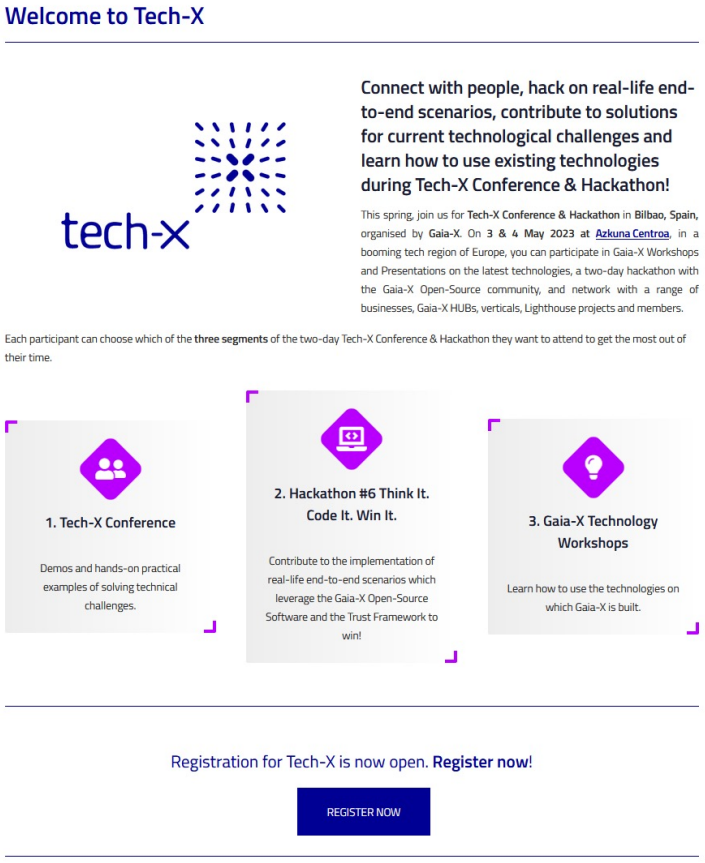


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