

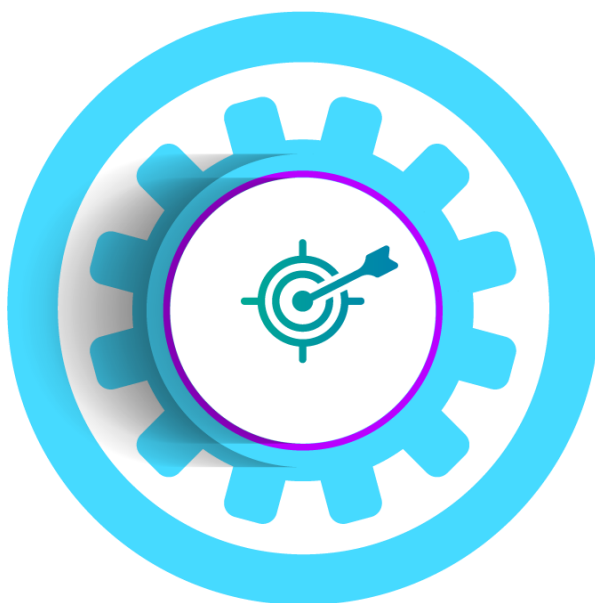
Gaia-X and its role in data sharing and federated cloud

Data Sharing Festival

The Hague, 04.02.2025

Ulrich Ahle | CEO Gaia-X

VISION

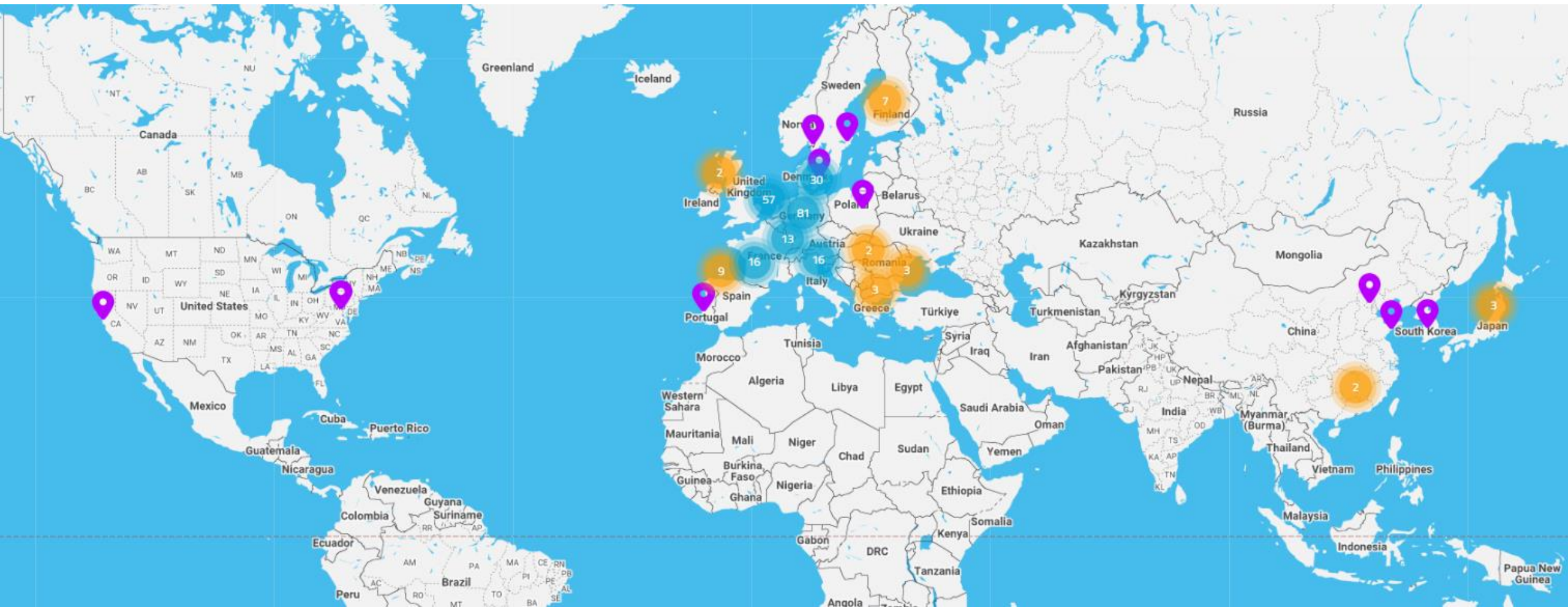


Enable trusted decentralised
digital ecosystems

Gaia-X: A global member driven association



- **Founded 2021** in Europe by 11 French and 11 German organisations
- **Today 248 members** from around the world



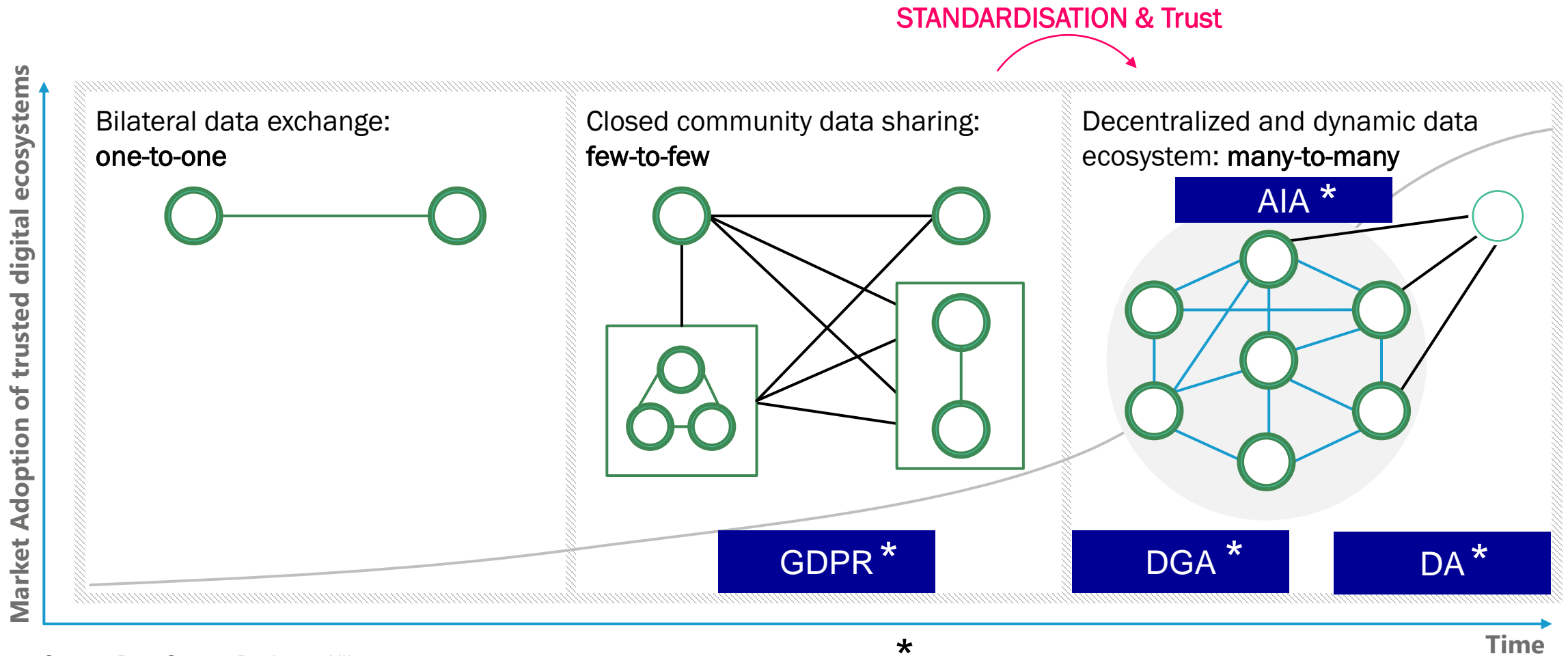
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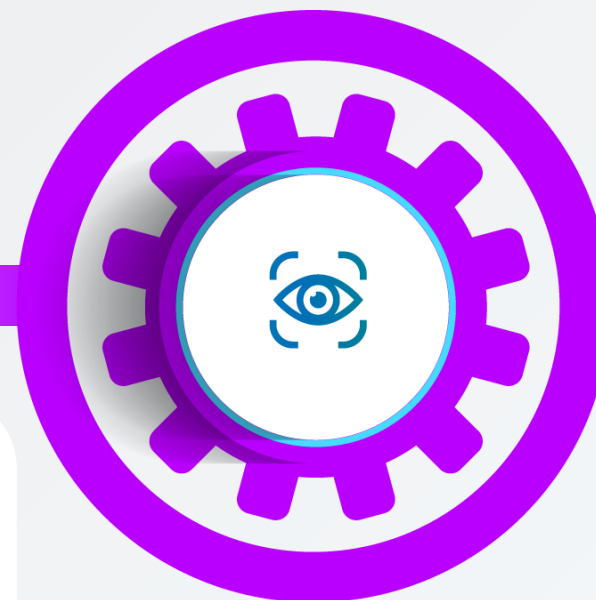
We are the friends of data!

The demand for Data Spaces



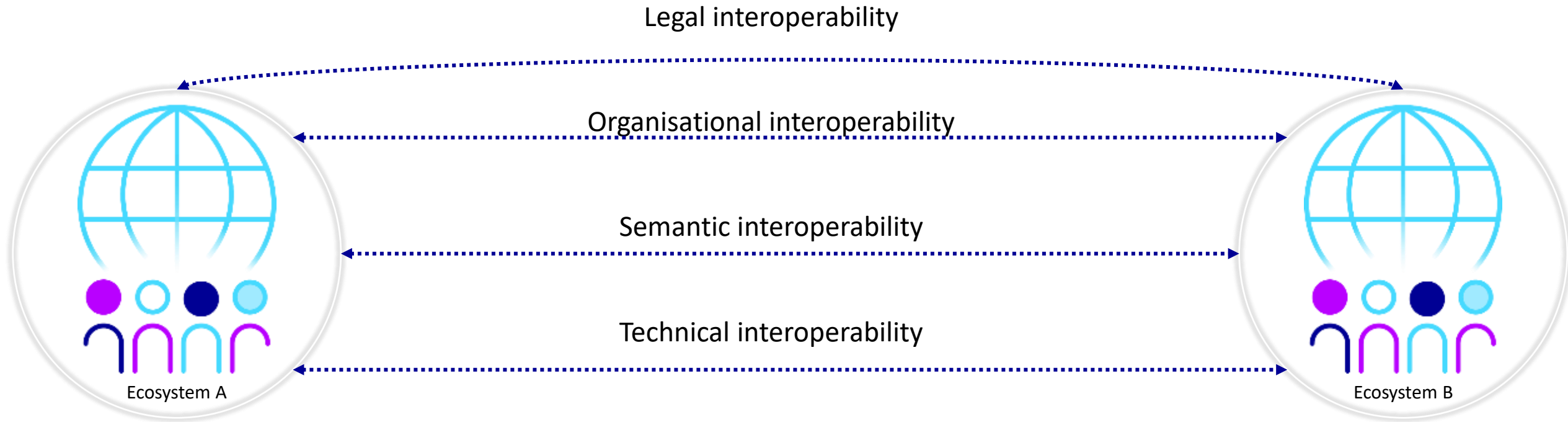
Source: Data Spaces Business Alliance

Creating the de facto standard to enable federated and trusted **data and infrastructure ecosystems**, by developing a set of specifications, rules, policies, and a verification framework



MISSION

Interoperability layers



Gaia-X Compliance document.



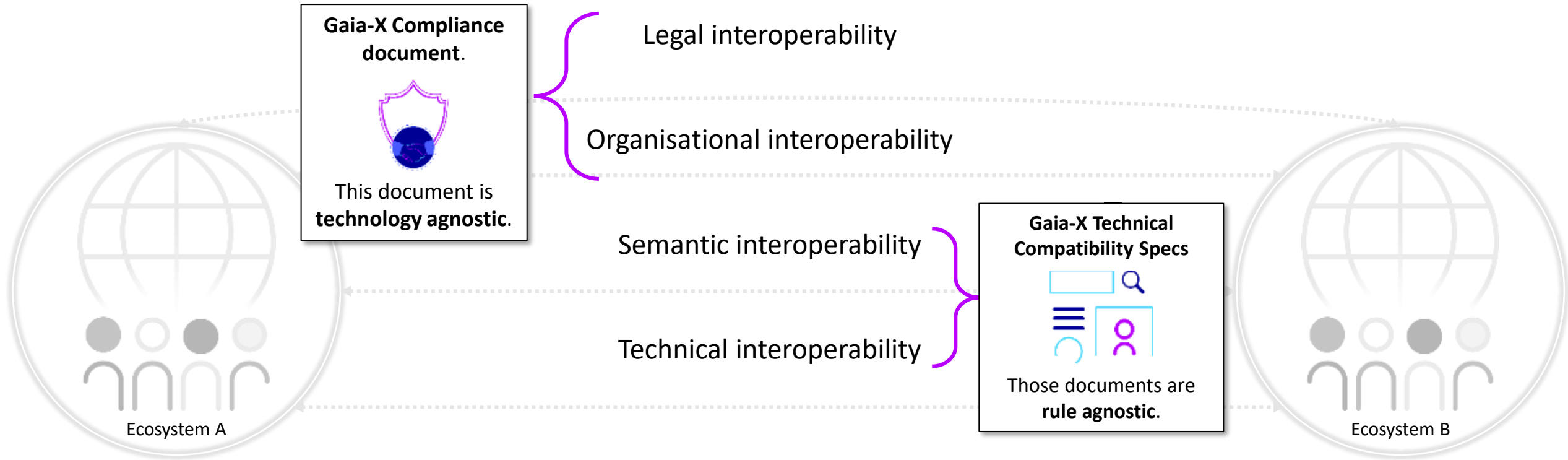
This document is **technology agnostic.**

Gaia-X Technical Compatibility Specs



Those documents are **rule agnostic.**

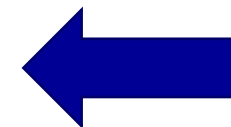
Interoperability layers



Gaia-X – Technical Committee: OSS & Services



<https://compliance.gaia-x.eu/>



- **Fully Open-Source Software**

- **Worldwide adoption ready**

- Decentralised data layer for the Gaia-X Registry scalability and information consistency. (ex: EU <-> JP)
- Support for European and non-European national Trust Service Providers.

Focus on end user services!

Automated Compliance by Gaia-X Compliance Document

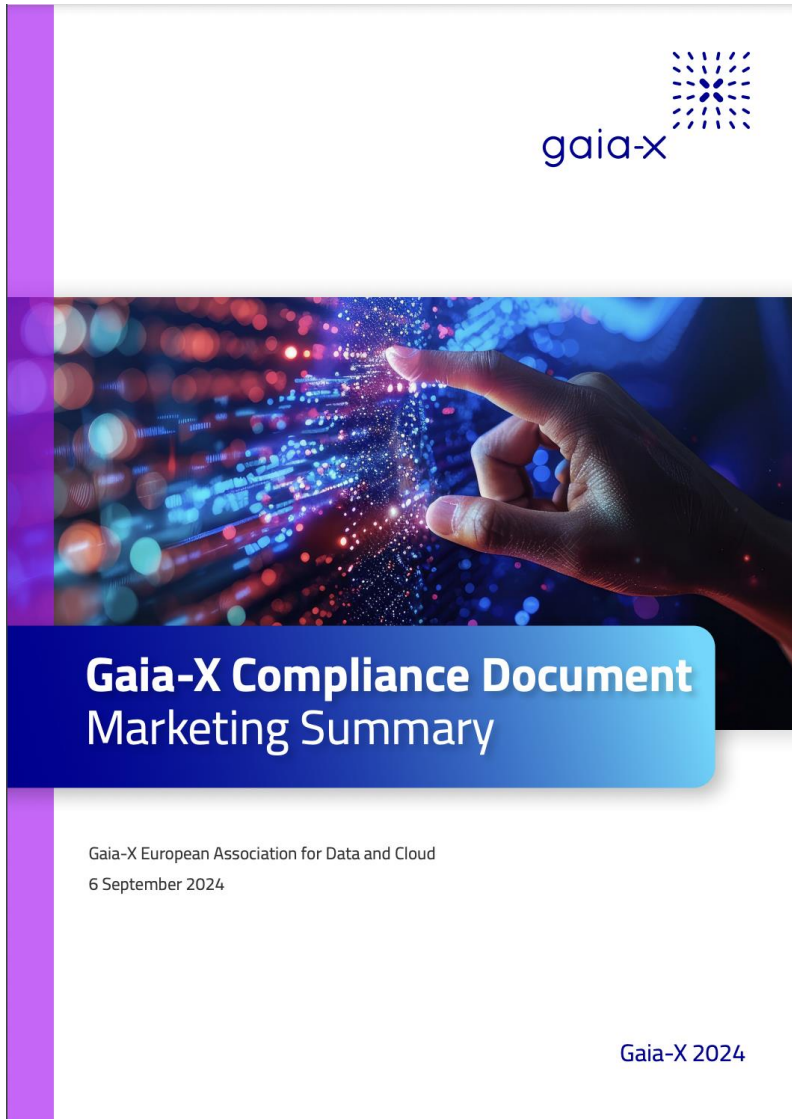


- **62 Criteria** are paving the way for an **Automated Compliance in Europe**
- **Compliance documents for regions outside of Europe with other legislations to be developed by the regions with support from Gaia-X**

| | CONFORMITY | LEVEL 1 | LEVEL 2 | LEVEL 3 |
|--|------------|---------|---------|---------|
| Declaration of Service or Product | ✓ | ✓ | ✓ | ✓ |
| Signed with verified method (e.g. eIDAS) | ✓ | ✓ | ✓ | ✓ |
| Automated validation by GXDCH | ✓ | ✓ | ✓ | ✓ |
| Automated verification by GXDCH* | ✓ | ✓ | + | + |
| Data Exchange Policies | ✓ | ✓ | ✓ | ✓ |
| Certified Label Logo | | ✓ | ✓ | ✓ |
| Data protection by EU legislation | | ✓ | ✓ | ✓ |
| Manual verification by CAB | | | ✓ | ✓ |
| Provider Headquarter within EU | | | | ✓ |

*not all criteria can be automated, "+" means automated verification if the evidence issuer (Standard & CAB)

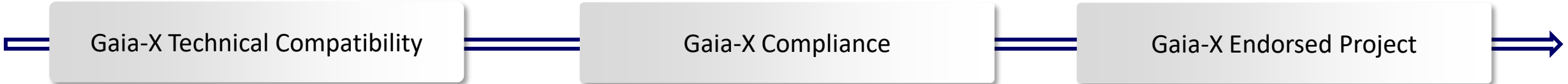
The Gaia-X Compliance Document



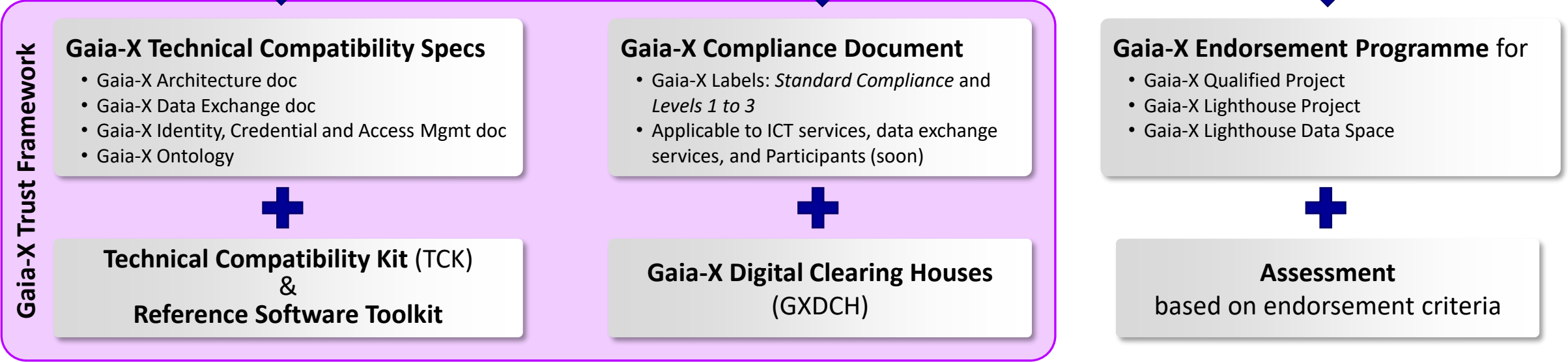
The battle for immunity from extraterritorial legislation

- SREN Law France (Sécurité et Régulation de l'Espace Numérique - Security and Regulation of the Digital Space)
- Source: LinkedIn

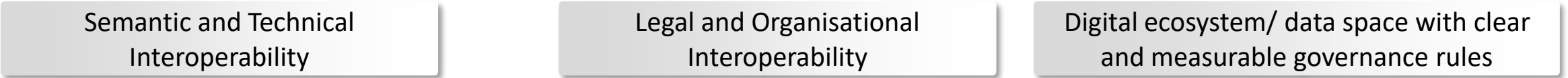
WHAT: GAIA-X STANDARD



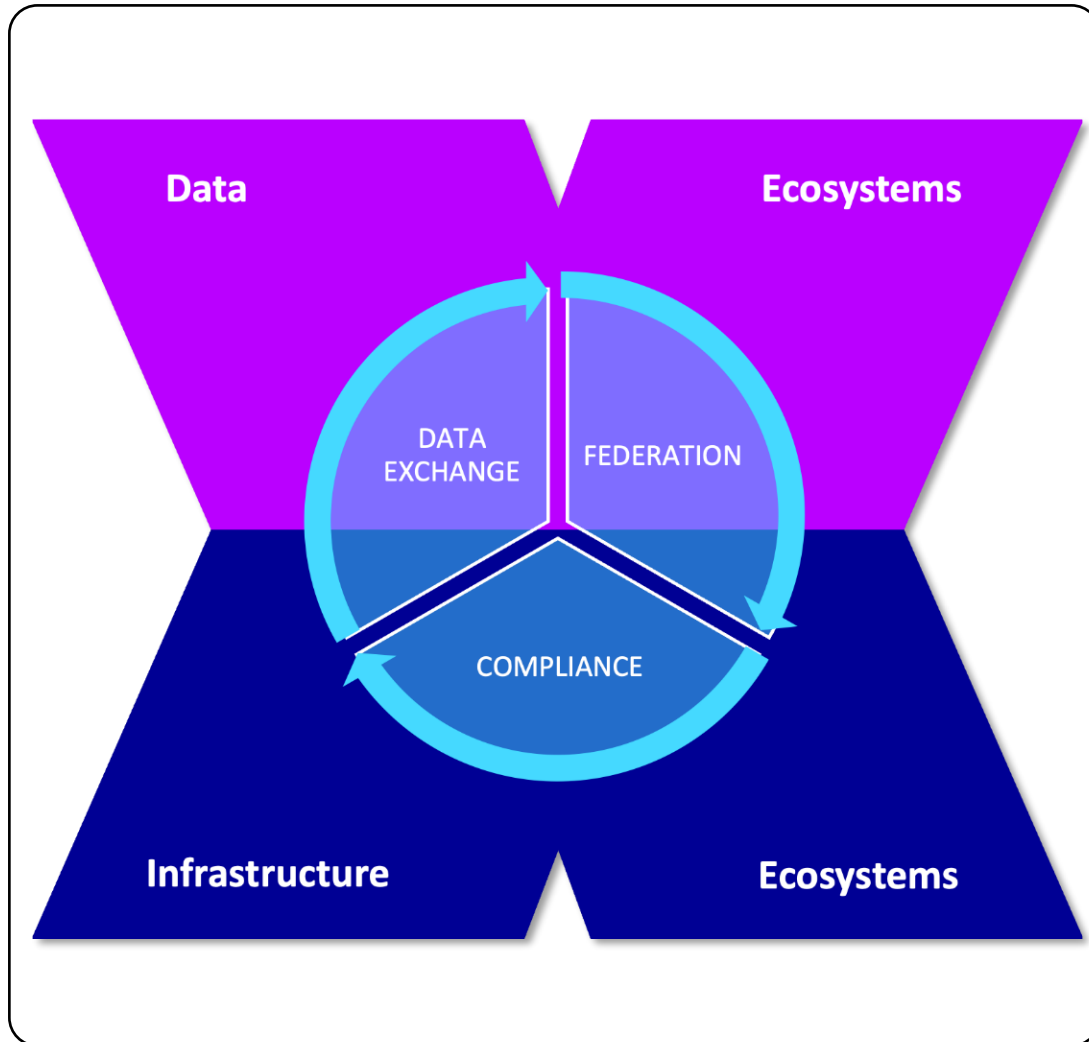
GAIA-X DELIVERABLES



BUSINESS VALUE



Implementation of Sovereignty Controls



Gaia-X Trust Protocol Specification
allowing multiple
implementations (e.g., different "connectors").



Minimal Interoperability Credentials (MIC)
(TBD e.g. digital ID, Legislation, ...)



Gaia-X Infrastructure Labels

Gaia-X Digital Clearing House Providers



In production



signed in deployment. pipeline



October 8, 2024
NTT DATA and Gaia-X Expand Global Reach with Deployment of Gaia-X Digital Clearing House in Japan

NTT DATA is pleased to announce the successful deployment of a testbed for a Gaia-X Digital Clearing House in Japan.

... The deployment in Japan is part of a data space test bed project led by the University of Tokyo, with active participation from industry giants including Toshiba, SoftBank Corp., NTT DATA, and NTT Communications. ...

Lighthouse Data Spaces Qualified Projects



Catena-X
Automotive Network

Automotive Supply Chain
Catena-X

DATASPACE 4HEALTH
LUXEMBOURG

Health
Dataspace4Health

DIGITAL TER-X
2050

Construction
Digital TER-X 2050

dynamo

Infrastructure &
Technology
Dynamo

FAIR Data Spaces

Research, Infrastructure &
Technology
FAIR Data Spaces

RegenAg-X

Agriculture
RegenAg-X

Lighthouse Projects

ACCURATE

Manufacturing
Accurate

Boot-X

Infrastructure &
Technology
Boot-X

COOPERANTS

Aeronautics, Space Sector
Cooperants

Data4Industry-X

Manufacturing,
Industry 4.0
Data4Industry-X

EONA-X

Mobility, Transport &
Tourism
EONA-X

energy data-X

Energy
Energy data-X

EuProGigant

Manufacturing,
Industry 4.0
EuProGigant

EuroDaT
The European Data Trustee

Finance
EuroDaT

gaia-x future mobility

Mobility & Transport
Gaia-X4 Future Mobility

HEALTH-X dataLOFT

Health
HEALTH-X dataLOFT

Mobility Data Space

Mobility
Mobility Data Space (MDS)

omega-x

Energy
Omega-X

PONTUS-X

Manufacturing, Industry 4.0, AI & Cloud Services,
Mobility, Aeronautics &
Space, Agriculture
Pontus-X

PROMETHEUS-X

Education
PROMETHEUS-X

SCSN smart connected supplier network

Electronics Supply Chain
SCSN

Sovereign Cloud Stack

Cloud Services
Sovereign Cloud Stack

Structura-X

Cloud Services
Structura-X

TEAM-X
Trusted Ecosystem of Applied Medical Data eXchange

Health
TEAM-X

Learn more about [Gaia-X endorsed projects here](#)

Overview of actual Gaia-X Hubs

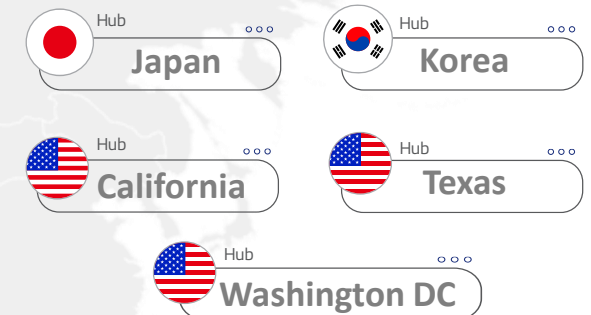
EUROPE 19



A map of Europe with 19 callouts, each featuring a national flag icon, the word "Hub", and the name of the country. The callouts are arranged in a grid-like pattern across the continent.

- Austria
- Belgium
- Denmark
- Finland
- France
- Germany
- Greece
- Hungary
- Italy
- Slovenia
- Netherlands
- Norway
- Poland
- Portugal
- Romania
- Slovakia
- Luxembourg
- Spain
- Switzerland


INTERNATIONAL 5



A map showing five international hubs with callouts. Each callout features a flag icon, the word "Hub", and the name of the hub. The hubs are located in Japan, Korea, California, Texas, and Washington DC.

- Japan
- Korea
- California
- Texas
- Washington DC

IN PROGRESS 6



A map showing six hubs in progress with callouts. Each callout features a flag icon, the word "Hub", and the name of the hub. The hubs are located in Africa, Estonia, Czech Republic, Sweden, United Kingdom, and Ireland.

- Africa
- Estonia
- Czech Republic
- Sweden
- United Kingdom
- Ireland

Learn [more about hubs here](#)

Public Funding for Data Space & Cloud Infrastructure in Europe

| Source | Programme | € | comment |
|---|--|----------------|---|
| Germany | National Funding | 435 M | Data Ecosystems: Gaia-X Funding Competition (11 Projects), Manufacturing-X, Catena-X, Gaia-X 4 Future Mobility, EuProGigant, Energy data-X, GXFS-DE |
| Spain | National Funding | 202 M | 150 M for Industrial Data Spaces Open Call, 50 M for Tourism Data Spaces Open Call, 1 M for Gaia-X "Data Economy Association" Hub, 0.9 M for sovereign data technologies DEV project |
| France | National Funding | 124 M | 40 M Data4industry-X , 70 M for new call for tender, 14 M GXFS-FR |
| Luxembourg | National Funding | 20 M | National funding for Gaia-X projects |
| Austria | National Funding | 23 M | Data space Technologies, Digital Product Passport, Production, Mobility, Energy and Healthcare |
| Denmark | National Funding | 5 M | Gaia-X Hub |
| Flanders | Regional Funding | 32 M | Flemish Smart Data Space, Athumi (Flemish Data Utility Company) |
| The Netherlands | National Funding | 217 M | 69 M Health-RI (health data sharing for secondary usage), 85 M DMI (Dutch Metropolitan Innovations ecosystem), 51 M DIL/BDI (Digital Infrastructure Logistics/Basis Data Infrastructure), 12 M CoE-DSC (Center of Excellence for Data Sharing and Cloud) |
| Finland | Sitra | 3 M | Sitra invested 2,6 M of which EUR 625.000 was used to co-finance 5 pilot projects related to data spaces. The co-financing rate covered by Sitra per project was 70%, the rest 30% was covered by project consortia members. |
| EU | Digital Europe Work Programme 2021- 2024 | 657 M | 300 M for topics supporting the deployment of the cloud-to-edge infrastructure and services, including the Testing and Experimentation Facility for Edge-AI; 357 M for topics deploying the sectorial data spaces and the related support activities, including the High Value Data Sets and Digital Product Passport. This set of calls includes the DSSC (14 M) and the procurement for Simpl (106 M). |
| EU | EU4Health | 280 M | Implementation of European Health Data Space |
| EU | Horizon Europe | 100 M | Energy Data Spaces and R&I projects |
| EU | Digital Europe Work Programme 2021- 2024 | 240 M | Destination Earth initiative |
| SUBTOTAL | | 2,338 M | Public investment for interoperable Data spaces based on European Values |
| France, Germany, Hungary, Italy, the Netherlands, Poland, Spain | IPCEI-CIS | 1,200 M | The Member States will provide up to €1.2 billion in public funding, which is expected to unlock additional €1.4 billion in private investments. |
| SUBTOTAL | | 1,200 M | Public investment for a federated Cloud infrastructure |
| TOTAL | | 3,538 M | Public investment for a data driven European economy |

Publications

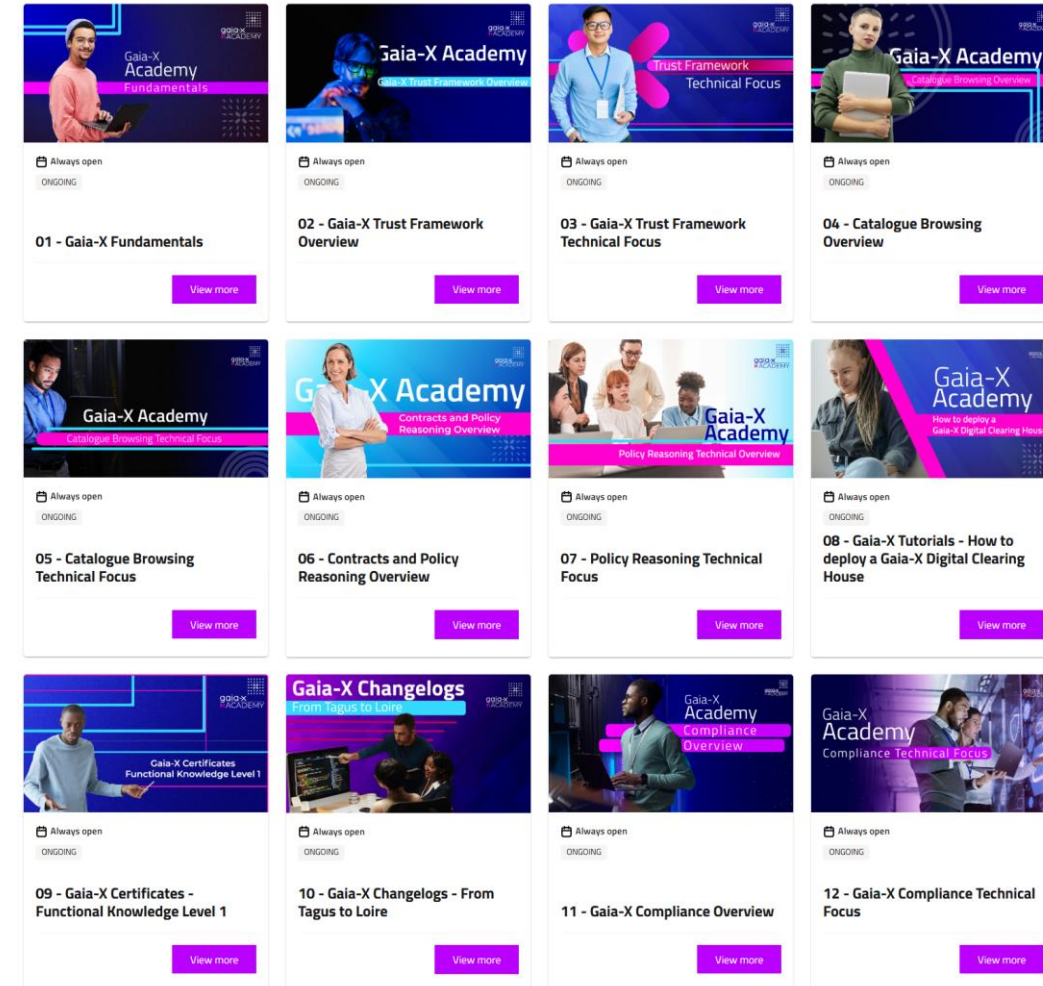


- Find our most up to date publications including our brochures on the website and Members Platform, under [Communication Material](#)
- The latest edition of the [Gaia-X Magazine](#) is now published! Read it on our website or the Members Platform

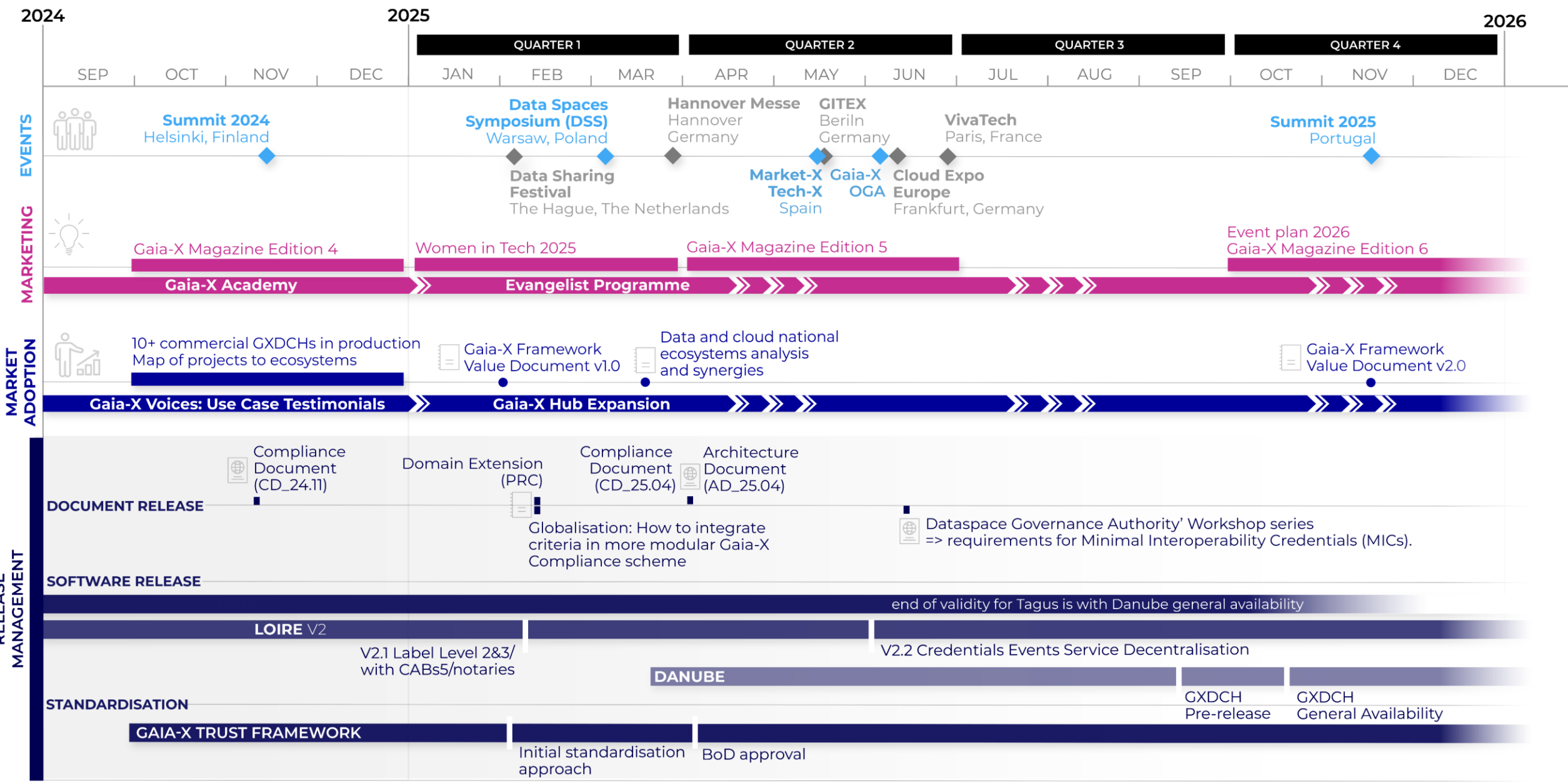
Gaia-X Academy – Status Update



- Platform Selection
 - launched in April 2024 - based on the open-source solution OpenEdx
- Gaia-X Academy technically up and running
 - More than 700 learners
 - 12 courses available: functional and technical trainings, tutorials, changelogs, certificate
 - Full access to the Gaia-X members
 - access limited to the functional trainings and changelogs for registered users
 - Content available in 4 languages (English, German, French and Italian)
 - more than 650 courses validated by the learners
- Next steps:
 - Increase the content by adding 10 new courses in the following months
 - Reshape the Academy by creating Streams and set of courses
 - Enabling temporary accesses to specific content for non-members



Gaia-X Strategic Roadmap 2025





Thank you!

Ulrich Ahle

ulrich.ahle@gaia-x.eu

+49-17-1533348