

Gaia-X – latest developments

Info-Briefing

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About the Info-Briefing

The Info-Briefing explains the latest developments at Gaia-X and is based on the Hubdate of the 13th December 2024. It summarises the internationalisation of the Gaia-X Association (AISBL), the realignment of the German Gaia-X Hub, the results of the GXFS and the FACIS project.

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Glossary

Policy Rules are criteria according to which validation is carried out by various compliant assessment bodies. They can also be translated as sets of rules.

Conformity Assessment Bodies (CABs) are organisations (e.g. auditing firms) that validate the conformity of services to criteria (such as those defined by ISO). CABs are accredited by the relevant standard organisations. (Details: <https://casco.iso.org/bodies.html>)

Trust Anchors Trust Anchors are entities recognized by Gaia-X, which may either have direct control over the Trusted Data Source or are recognized by Gaia-X, e.g. as a notary public, that converts Trusted Data Sources into verifiable credentials on behalf of the entity managing the Trusted Data Source.

1. Internationalisation of the Gaia-X Association (AISBL)

What new hubs have been established?

Internationalisation was a key goal for the Gaia-X Association (AISBL) in 2024. As a result, five new hubs were launched in **Denmark, Norway, Switzerland, Japan, and South Korea**.

What are Gaia-X Digital Clearing Houses (GXDCH) and where are they located?

Gaia-X Digital Clearing Houses (GXDCH) act as central points of contact for companies and institutions seeking verification in accordance with Gaia-X rules. They assess who is authorised to be part of Gaia-X and certify the Gaia-X conformity of participants and services based on [the Gaia-X Trust Framework](#). The GXDCH are therefore the only infrastructure required to verify Gaia-X conformity.



Last year, the Gaia-X Association accredited **ten Gaia-X Digital Clearing Houses** in various countries, including France, Spain, Italy, and Germany. Additionally, a first **Swiss Clearing House, operated by A1.digital**, will soon be available.

A digital clearing house is already in operation in **Japan**. While this is not an accredited clearing house, as it does not meet the legal requirements for Level 3, it is fully operational and ready for use. It allows the Japanese community to engage with data spaces and begin building initial data space ecosystems. However, there are still challenges that the Gaia-X Association is addressing, including **a review of regulations concerning cybersecurity, legal conditions, and trust anchors** in Japan that are relevant for Gaia-X Digital Clearing House accreditation.

How is the cooperation with Asia evolving?

This year, **networking with Japan, Hong Kong, and South Korea** has intensified. The AISBL had previously signed a memorandum of understanding with Japan, and cooperation with other Asian countries is now expanding. Initial discussions with Hong Kong have revealed a strong interest in advancing globalisation with Gaia-X standards. The AISBL has launched **sprints** to define a new set of rules for these regions, as the current Gaia-X rules are based on European laws, values, and standards. While the core set of rules will remain focused on the European Economic Area, it will be supplemented with **extensions tailored for Asia**.

What are the Gaia-X Association and the International Data Space Association developing together?

Another key focus of internationalisation is the **restructuring and implementation of data exchange rules** in collaboration with the International Data Space Association (IDSA). The AISBL and IDSA are **jointly drafting a document** on data exchange to harmonise their complementary concepts. Gaia-X provides a digital, decentralised trust framework, while IDSA offers the revised Data Space Protocol to establish a common standard for data exchange. Data exchange will be conducted digitally and managed through connectors. To ensure a shorter time-to-market, the Gaia-X Association is not currently planning to develop its own connector. Instead, they aim to identify suitable methods for equipping existing software components (including connectors) with the Gaia-X Trust Framework or ensuring their compatibility. The document is expected to be published in the first quarter of 2025.

2. Reorganisation of the German Gaia-X Hub

At the beginning of 2024, the Gaia-X Hub Germany conducted an **interim evaluation**. This evaluation revealed that domain/ecosystem meetings and other events, publications, and information formats were sometimes repetitive and not always suitable for certain target groups due to varying levels of knowledge. As a result, the organisational structure will be restructured around a **content-based stakeholder journey**. The community will be divided into **three knowledge levels and three main topics** (see illustration below). Event, publication, and information formats will be revised and tailored to specific target groups, ensuring they effectively address and educate both new members and existing hub members based on their background knowledge. Additionally, those involved in funding programmes and projects will share their expertise with the community, while employees of the Gaia-X Hub Germany will increasingly take on a ‘translation function’ to bridge any gaps.



The overarching goal is to further develop the Gaia-X Hub Germany into a **technology-agnostic national contact point** and a central content hub for decentralised data infrastructures, data ecosystems, and the data economy. Similar concepts are already being implemented in Spain, Belgium, and the Netherlands.

The following matrix provides an illustration of the categorisation of community members:



3. Gaia-X Trust Framework

What is the Gaia-X Trust Framework?

The Gaia-X Trust Framework provides a secure, trustworthy, and interoperable foundation for the exchange and use of data across various sectors. It enables two types of interoperability: (1) **legal and organisational interoperability**, governed by the Gaia-X Compliance Document (24.06), and (2) **semantic and technical interoperability**, governed by the Gaia-X Architecture Document. In practice, the Compliance Document and Architecture Document are closely intertwined. The Compliance Document is used to assess the **Gaia-X compliance** of services.



The requirements for demonstrating compliance services have changed significantly. One of Gaia-X's objectives is to automate trust in these compliance services – the key concept being **'Automated Trust'**. The compliance document is currently being transformed into executable code. Ecosystems will be able to further develop the compliance documents themselves on a domain-specific basis.

In addition to the reference software and the Notary and Registry compliance services, a connector for data rooms or a library is still missing. The plan for 2025 is to equip service and data providers, as well as users, with software that will enable them to utilise the **automated compliance documents**.



The [Gaia-X Framework](#) provides an overview of the relationships between the Gaia-X artifacts.

What other news is there?

The introduction of so-called **'Gap CABs'** is underway. If a Conformity Assessment Body (CAB) is absent for a criterion that needs to be audited, a gap is created. Organisations such as PwC are planning to formally review such criteria in the future, and a process is currently being developed for this purpose. These so-called *Gap CABs* will then be accredited by the Policy and Rules Committee and will be used to review criteria for which there is no standard or only an insufficiently defined one.

In the first quarter of 2025, companies will be able to receive **certification as Gaia-X implementation partners for integration and consulting services**, such as when establishing domain-specific criteria. This will enhance transparency regarding which organisations provide these services in a Gaia-X-compliant manner.

4. Participation Desired: Policy and Rules Committee and Technical Committee

The Policy and Rules Committee (PCR), led by Roland Fadrany (COO of Gaia-X AISBL) and Thomas Niessen (Kompetenznetzwerk Trusted Cloud e.V.), transitioned to an **agile sprint working model** this year. In these sprints, small teams of 5 to 6 individuals focus on specific topics and present and discuss their findings within the PCR team. In 2024, the committee held **18 iterations**, comprising a total of 170 sprint meetings. The results are available for viewing on the [Members Platform](#), [GitLab](#), and the [Jira Self-Service Portal](#). **Requirements can be submitted, features can be requested**, and **applications for collaboration are welcome**, as the committee is actively seeking additional members. An onboarding kit for new participants ensures a swift start. The committee is looking not only for

compliance experts but also for business and technology specialists who can offer their insights to help shape the Gaia-X rules and regulations.

Participation is possible in the following sprints:

- 1) **Geographical Extension Sprint** (Led by Bert Verdonck): This sprint prepares the expansion process with Japan, South Korea, and Switzerland. A white paper outlining the guidelines for the extensions is currently being written and will be published in February. The meetings take place on Mondays at 16:00. Participation [here](#).
- 2) **Domain Extension Sprint** (Led by Bert Verdonck): This sprint focuses on developing domain-specific labels and groupings of criteria within the Gaia-X Label Framework. Current use cases include the aerospace and mobility sectors. The meetings are held on Fridays at 14:00. Participation [here](#).
- 3) **Compliance and Label Optimization Sprint** (Catherine Simonnin): This sprint addresses the further development of participant identification and the associated domain-specific criteria for participation in a data space. The meetings take place on Tuesdays at 16:00. For participation, please send an E-mail to the Technical Committee.

The Technical Committee is currently developing a strategic roadmap 25.04 from the "outside-in" perspective of stakeholder groups. Contributions are being gathered from external stakeholder groups, such as those involved in projects and open-source software initiatives. The roadmap is scheduled for release in April 2025.



The Technical Committee welcomes participation from the community:
technicalcommittee@groups.gaia-x.eu

5. Gaia-X Federation Services (XFSC) Toolbox und the New FACIS Project

The implementation partners of GXFS developed the [XFSC toolbox](#), an open-source code based on technical specifications. The GXFS project concluded as planned after four years on 31 December 2024, having driven the collaborative development of Gaia-X Federation Services.

What are the results?

Implementation phase 2 has been completed, providing the following [specifications](#): [the open-source software licence code](#) and an [example of the OCM W-Stack](#).

The implementation partners are developing an online course aimed at consultants, users and their IT departments, software solution providers, integrators, and their employees to enhance their understanding of the Federation Services. This course will be launched in the second quarter of this year, with the goal of deepening knowledge of Federation Services, demonstrating their benefits, and promoting the efficient and secure use of the tools. The [course](#) will cover the fundamentals, the functions of the toolbox, as well as practical application scenarios and adaptations.



The results and additional materials from the final workshop on 28/29 November 2024 in Madrid are available in the document [XFSCFinalTechWorkshop Madrid 2024 publicuse.pdf](#) and will be stored in GitLab in open-source repositories.

What does the new FACIS project offer?

The new FACIS (Federation Architecture for Composition of Infrastructure Services) project will start in 2025 and run for two years, building on the results of the XFSC project. More information will be available on the [FACIS website](#) starting in January. FACIS aims to stabilise the application of functional components for developing cooperative data ecosystems, with a particular focus on infrastructure service offerings. Special emphasis will be placed on the implementation of interconnected cloud edge applications.



Future updates on the XFSC project will be provided on the FACIS website. The XFSC website will remain online at <https://www.gxfs.eu/>

6. Gaia-X Summit

Over 600 registered participants from more than 40 countries attended the 5th Gaia-X Summit on November 14-15, 2024, held at the Finnkino Tennispalatsi in Helsinki. The theme of the summit was “Empowering Global Data Spaces, Shaping Tomorrow’s Cloud Infrastructure”. The event focused on presenting the Gaia-X Roadmap for 2025, as well as updates on the technical progress of Gaia-X Compliance & Label and the Trust Framework. The program was enriched by perspectives from political representatives, related initiatives, the European hubs and the Scandinavian-Baltic region.

We have summarised the **key messages**:

- The [Gaia-X Roadmap](#) outlines the planned technical advancements, events, and publications for 2025.
- Political representatives emphasize the importance of **digital sovereignty, interoperability, and internationalization of data space projects in Europe**. They play a key role in the development of new **business models** and the creation of a **European data infrastructure solution**.
- A key advancement in Gaia-X technology is the introduction of new components in the “**Loire Release**” for the **Gaia-X Digital Clearing Houses (GXDCH)**.
- **Gaia-X, Data Spaces Business Alliance (DSBA), Data Spaces Support Center (DSSC), and Simpl** are collaborating on the further development of data spaces.
- **Cloud service providers** are driving the development of interoperable data ecosystems with Gaia-X through a joint **trust framework initiative** for data spaces.
- The Eclipse Foundation's new open source working group is working on technical solutions for **multi-cloud interoperability**; an ISO FastTrack for standardization is being pursued.
- Dataspace projects from various fields demonstrate how the Gaia-X framework is being successfully implemented across different sectors. Scandinavian-Baltic initiatives highlight the importance of **business models**.

- The role of the **data space orchestrator** is central to managing and coordinating activities within data ecosystems. The economic model developed by the University of Paris Dauphine helps to evaluate data-sharing projects in this context.