

gaia-x



# Market Conference & Expo

Vienna Austria

14 - 15 March 2023

In partnership with gaia-x  
Hub Austria



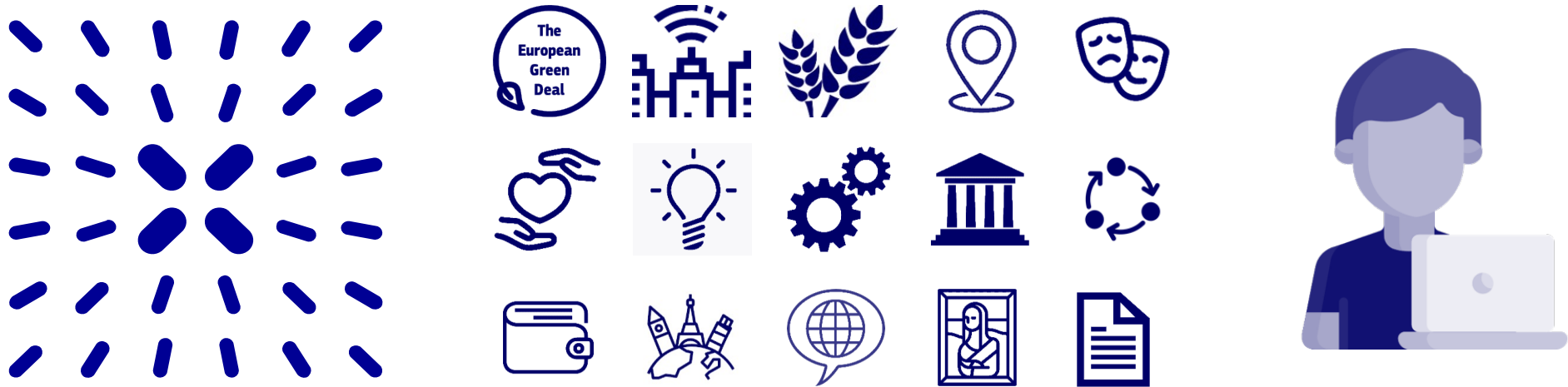




# Gaia-X State of the Union

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CEO Gaia-X

# Digital Economy



Digital Economy is pervasive and driven by **Data Spaces, the digitalization of the Value Chains**, in economical, social, political, and natural ecosystems – **All are impacted!**

# EU Data Economy – Opportunities & Threats



**SaaS Market**  
2019-2021: +50%\*



**Edge Computing**  
206.5 bn EUR by 2024\*



**Telco Network & Cloud Native 5G**

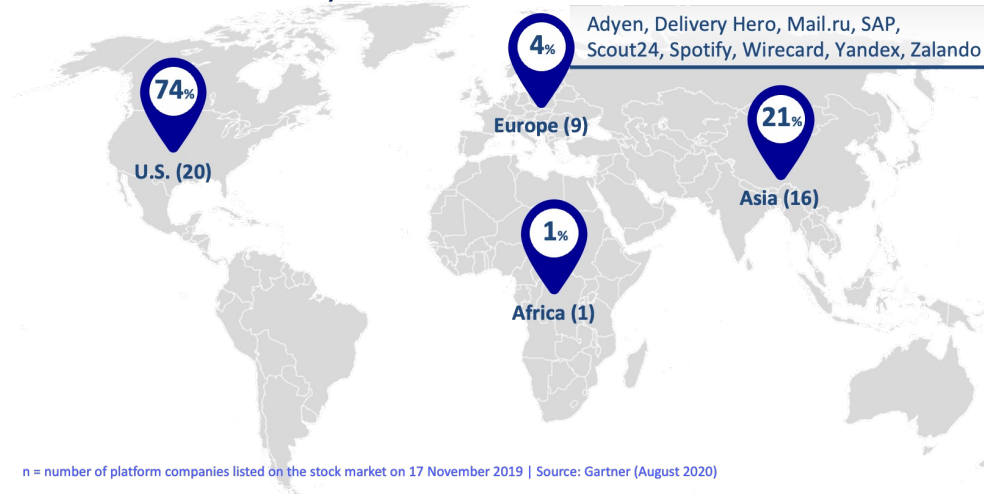


**Industrial IoT & B2B Applications**

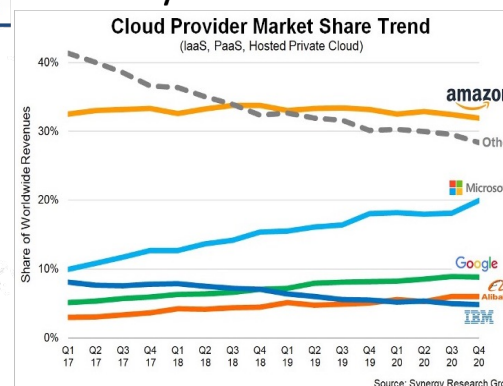


**Sectoral Demand**  
for interoperable,  
green, secure,  
multi-cloud

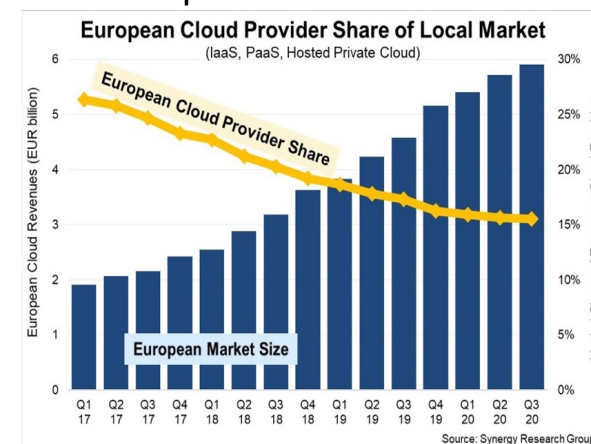
## The EU share in the Platform Economy



## • Globally



## • In Europe





# 2025 Predictions - Gaia-X, an urgent move for a European Future!

## EU Digital Market 2025

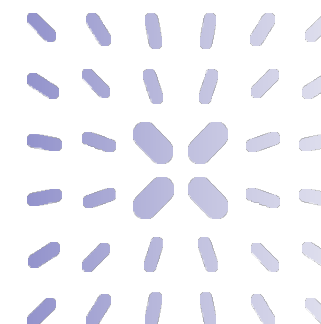
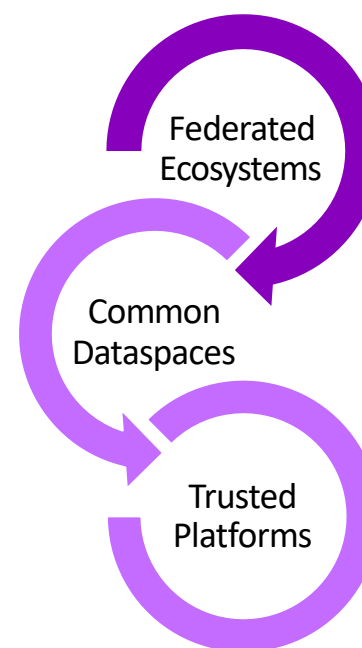
- EU CSP Providers Market Share = <10%
- EU TAM on Data Platforms = 8-10% EU GDP
- EU Economy Footprint Largely SME = >80%

## EU Economy 2025

- Public Services dependency on Digital Platforms = >70%
- Product/Service Value Dependent on Data = 50-70%
- Disjoint Data across Value Chains = >70%

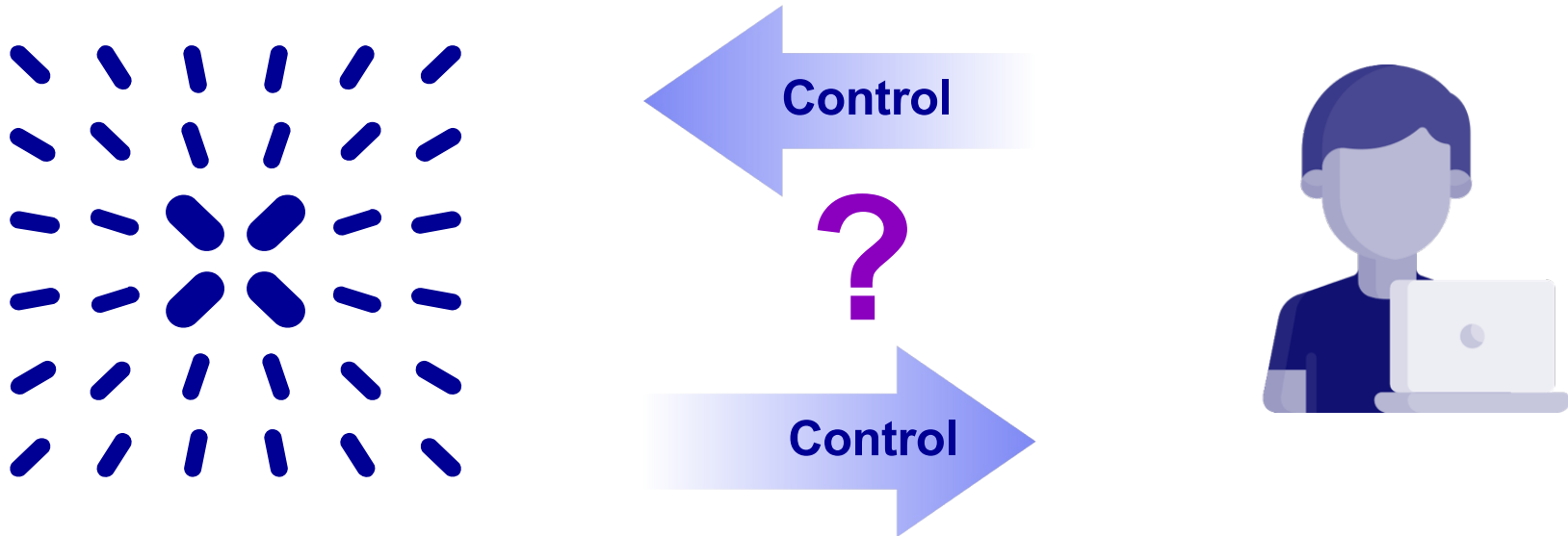
## EU Sovereignty in 2025:

- No Political Sovereignty w/o Digital Sovereignty
- No Economy Drive w/o Digital Sovereignty
- No Sovereignty with 'Private' or 'Autocratic' Platforms



# So, are we in control of Technology?...

No!  
Lack of Transparency,  
Control & Interoperability





# Gaia-X – Regain Control on Technology



Concentrated      Proprietary      Opaque



Users LET Control

Trust & Sovereignty



Distributed      Open      Transparent



Users GET Control

# Are our Ecosystems ready?

## No! Disjoint Data & Infrastructures Ecosystems



### Data

Untapped, fragmented, disjoint, no  
secure exchange mechanism



### infrastructures

Segregated, non-reversible, non-interoperable, closed  
architectures, private standards



## Data Ecosystem



Health



Industrial



Mobility



Public



Media



Agriculture



Culture



Green



Security

## Infrastructure Ecosystem

Network/  
Interconn.  
Providers

CSP  
(e.g. Regional,  
specialized,  
Hyperscalers)

HPC  
(e.g. research...)

Sector  
specific  
clouds

EDGE



# Gaia-X – Connect Disjoint Ecosystems



## Advanced Services

New (Cross-) Sector Innovations / Applications build from service composition.



## Data Spaces / Federations

Interoperable & portable (Cross-) Sector data-sets and services.



## Data Exchange

Anchored contract rules for access and data usage.



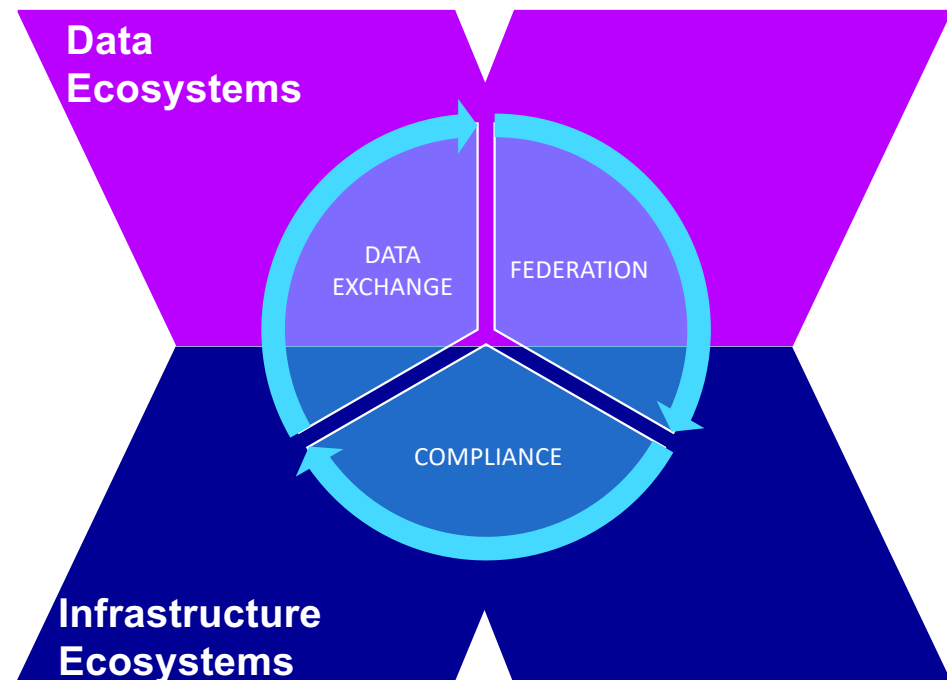
## Gaia-X Compliance

Decentralized services to enable objective and measurable trust.




## Label framework


Gaia-X and ecosystem specific Labels to ease market adoption through autonomy and self-determination.



# Gaia-X Abstract



Established in 2021 as a **privately funded not-for-profit** Association, Gaia-X brings together a community of organisations around the common goal to **boost the European data economy** by enabling the creation of **common data spaces**, in full alignment with the objectives of the **EU's data strategy**, and building a **common open standard for transparent, controllable and interoperable data infrastructures** for trustworthy data exchange.



Open to anyone but aligned to the European values of human-centricity, transparency, openness and sovereignty, Gaia-X's ambition is to deliver unprecedented opportunities for innovative data-driven business models **reducing the dependency from non-controllable technologies**

Want to learn more about Gaia-X? [Click here](#).




Interested in becoming a member of Gaia-X? [Click here](#)!





# Gaia-X Do's and Dont's



## What we are

 <b>Gaia-X is</b>	<ul style="list-style-type: none"><li>&gt; A single point of definition of Gaia-X architecture &amp; rules</li><li>&gt; Making available an open implementation to all</li><li>&gt; A qualification authority for Gaia-X compliance</li></ul>
 <b>Gaia-X Is Not</b>	<ul style="list-style-type: none"><li>&gt; A formal standardization body</li><li>&gt; A SW or HW product or cloud platform</li><li>&gt; A runtime implementation of any Gaia-X service</li></ul>
 <b>Gaia-X vs AISBL</b>	<ul style="list-style-type: none"><li>&gt; Gaia-X project is driven by the Association</li><li>&gt; Gaia-X architecture is developed by members</li><li>&gt; Gaia-X services will not be operated by the Association</li></ul>

## What we do

 <b>Specify</b>	<b>Specs</b>
 <b>Develop</b>	<b>Code</b>
 <b>Qualify</b>	<b>Labels</b>

AISBL is an independent single point of truth in the determination of a Gaia-X compliancy, but the Association itself will not host or run directly any service. Qualification and compliance will be verified through decentralized mechanisms of digital trust and consensus distributed across the network of Gaia-X nodes (i.e. AISBL stands to Gaia-X like a Registrar to the Internet)

# Gaia-X Framework – State of the Art Full Picture



## 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

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.

#### Compliance

Policy Rules & Label document

#### Federation

Architecture document

#### Data Exchange

### 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.

Trust Framework

Federated Catalogue

Identity, Credential & Access Management

Data Exchange services

# Moving from #DataGathering to #DataSpaces...

## ... Industry 4.0 Data Gathering



**Multiple Interfaces**  
**Segregated Data**  
**Limited Accessibility**  
*Enabling Technology*



**What's the difference?**



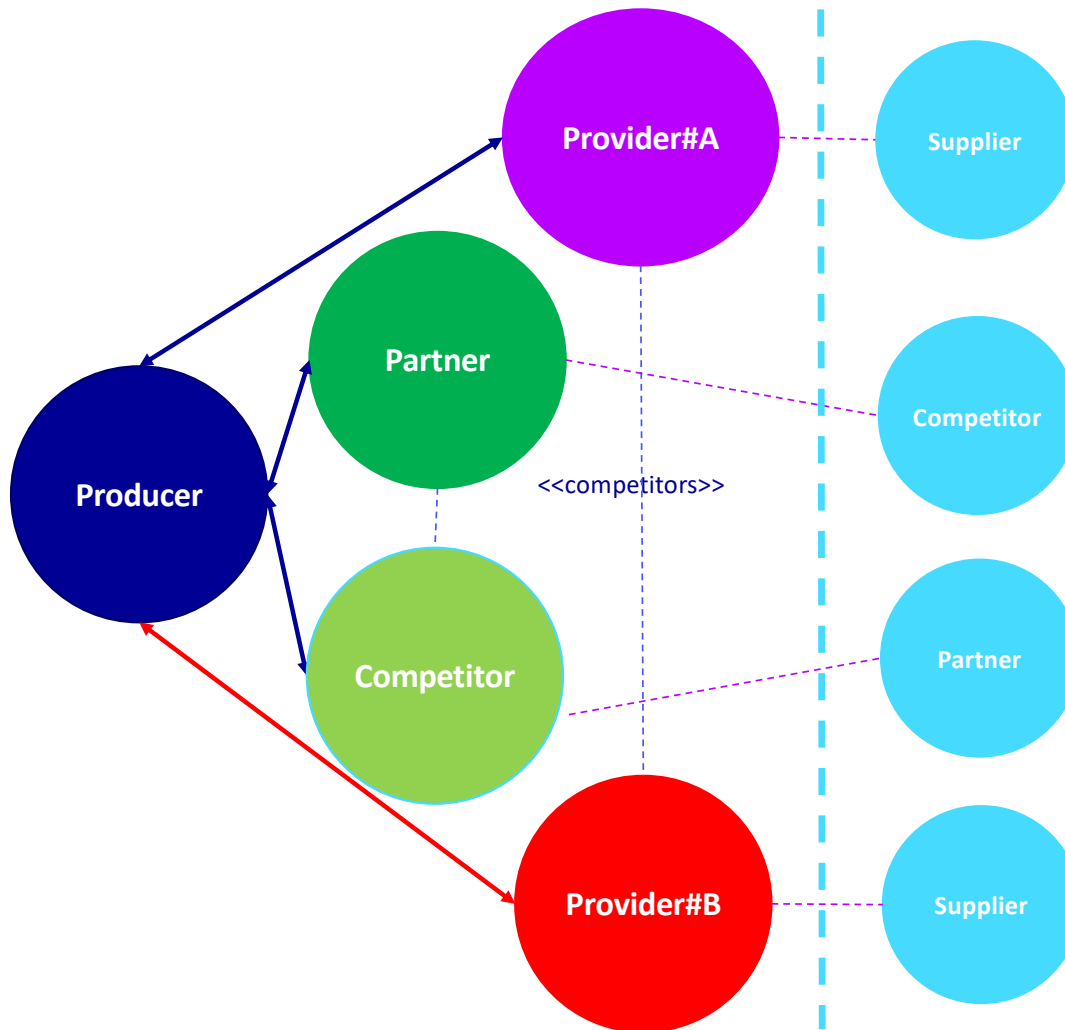
## Industry X ... Data Spaces



**Federated Participants**  
**Seamless Data**  
**Full Accessibility**  
*Controllable Technology*



# The (single) Ecosystem Data Spaces Problem: Trust the 'Participants'



## THE BUSINESS PROBLEM:

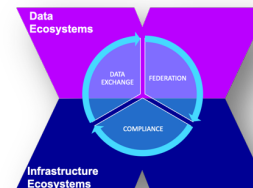
- Identify business use cases
- Sell inside your organization
- Identify potential federation participants
- Build consensus
- Find common business outcomes/interests
- Offer reciprocal and balanced outcomes

## THE TECHNICAL PROBLEM:

- Trusted participants identity
- Trusted federation services credentials
- Trusted federation access and usage mechanisms
- Trusted federation extensibility mechanisms
- Trusted data-infrastructures
- Trusted federation governance
- Trusted federator role
- Have one-stop-place for trust services

## THE SOLUTION:

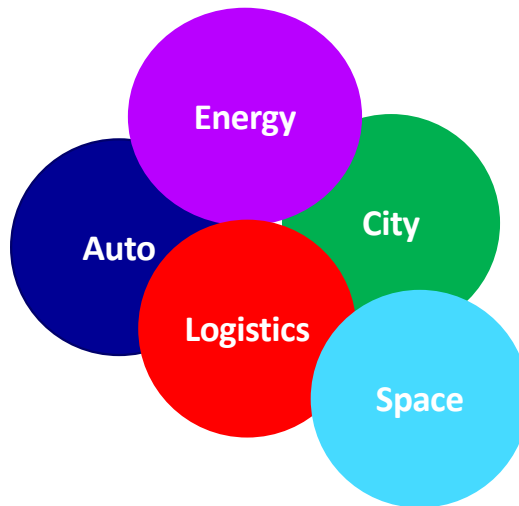
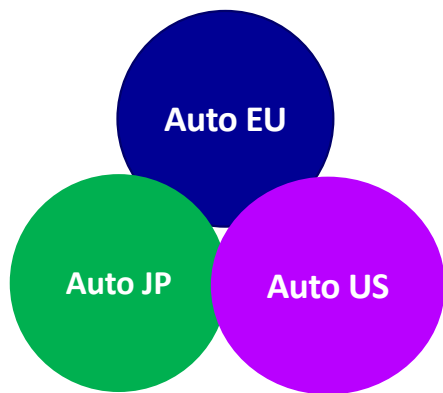
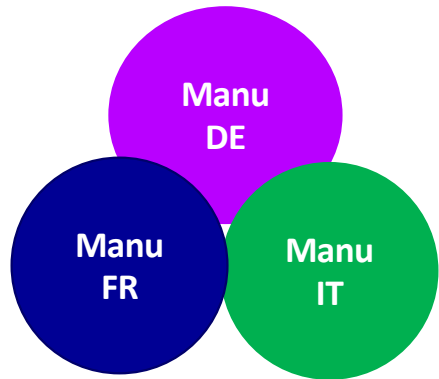
**Adopt a Trust Framework, &  
Build a Trust-Engine**



**Gaia-X  
Helps**



# The (multi) Ecosystems Data Spaces Problem: Trust the 'Trust Framework'



## THE BUSINESS PROBLEM:

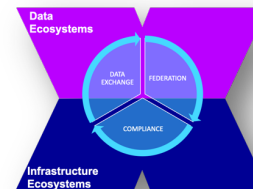
- Conceive x-fed/domain business use cases
- Identify existing federations
- Trust compatible federations
- Sell inside your orgs/fed(s)
- Find common business outcomes/interests
- Offer reciprocal and balanced outcomes
- Design common governance models
- Define x-federators

## THE TECHNICAL PROBLEM:

- **Trust the other's Trust Framework (!)**

## THE SOLUTION:

**One common Trust Framework, &  
Single, multi-access, decentralized Trust-Engine**



**Gaia-X  
Necessary...**



# GXDCH (Gaia-X Digital Clearing House) – What is it



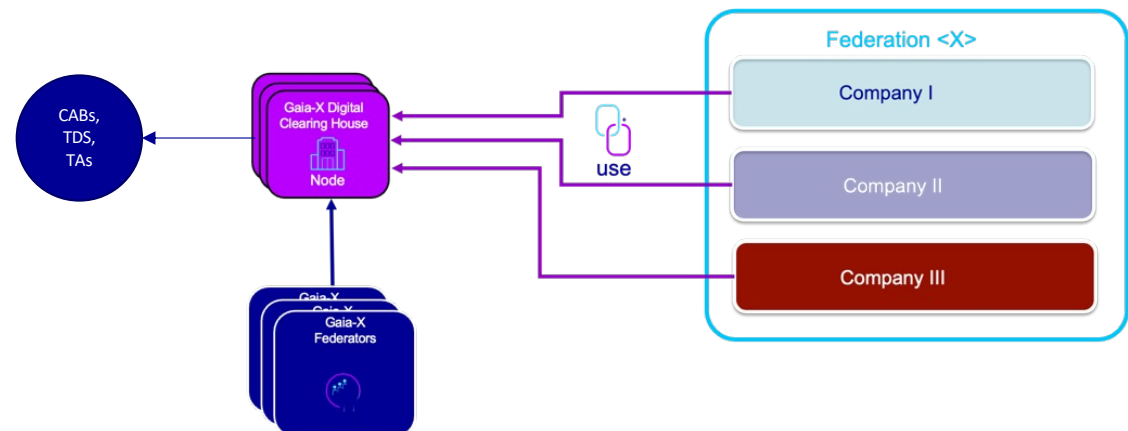
## THE GXDCH:

- Are nodes of verification of Gaia-X rules.
- Are places to obtain Gaia-X compliance & become part of the Gaia-X ecosystem.
- Are multiple nodes operated by market operators, acting as a Gaia-X Federator
- Run services (compulsory and optional) part of the Gaia-X Framework, and necessary achieve compliance and support the onboarding of any Gaia-X adopter.
- Integrate with external TA (Trust Anchors) to verify identity (e.g. eIDAS), CAB (Conformance Assessment Bodies) asseverating conformance to existing standard, and other TDS (Trusted Data Sources)



## THE 'HOW TO' PLACE TO GO:

- How to be Gaia-X compliant?
- How to be in the global Gaia-X catalog?
- How to build my own catalog?
- How to build my federation?
- How to join a federation?
- ...

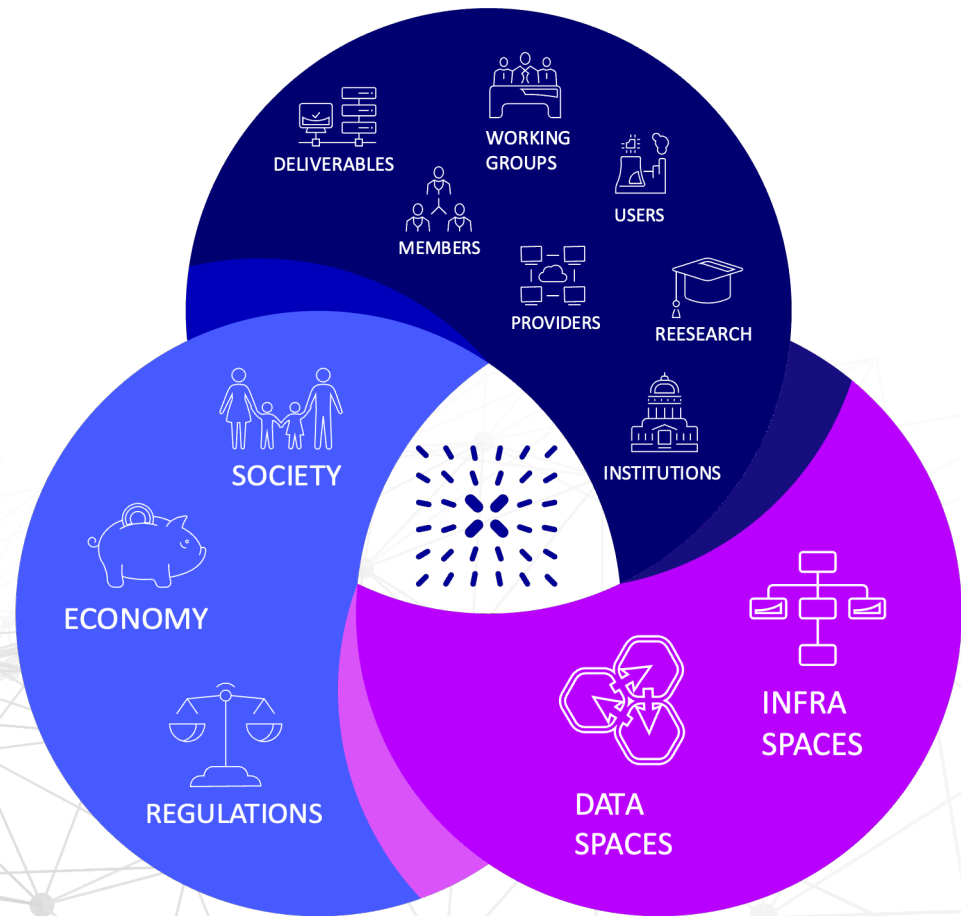




# Market Adoption in Figures

Date	Members	Lighthouses	Hubs	Verticals	Catalog Items	GXDCH
Summit21	304	0	14	0	0	0
Summit22	347	8	20	16	800	0
Market-X	376	11	21	16	1573	2

# Gaia-X - The European Union for Data Economy!



# Gaia-X useful links – Check them out!



- [Gaia-X Framework](#)
- [Gaia-X Digital Clearing House](#)
- [Gaia-X Specifications](#)
- [News](#)
- [Events](#)

- [info@gaia-x.eu](mailto:info@gaia-x.eu)
- [www.gaia-x.eu](http://www.gaia-x.eu)







Thank you!

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