



gaia-x



# Market Conference & Expo

Vienna Austria

14 - 15 March 2023

In partnership with  gaia-x  
 Hub Austria



# Gaia-X State of the Union

Francesco Bonfiglio  
CEO Gaia-X

# Digital Economy



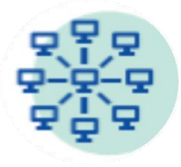
Digital Economy is pervasive and driven by **Data Spaces, the digitalization of the Value Chains**, in economical, social, political, and natural ecosystems –  
**All are impacted!**



# EU Data Economy – Opportunities & Threats



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



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



**Telco Network & Cloud Native 5G**

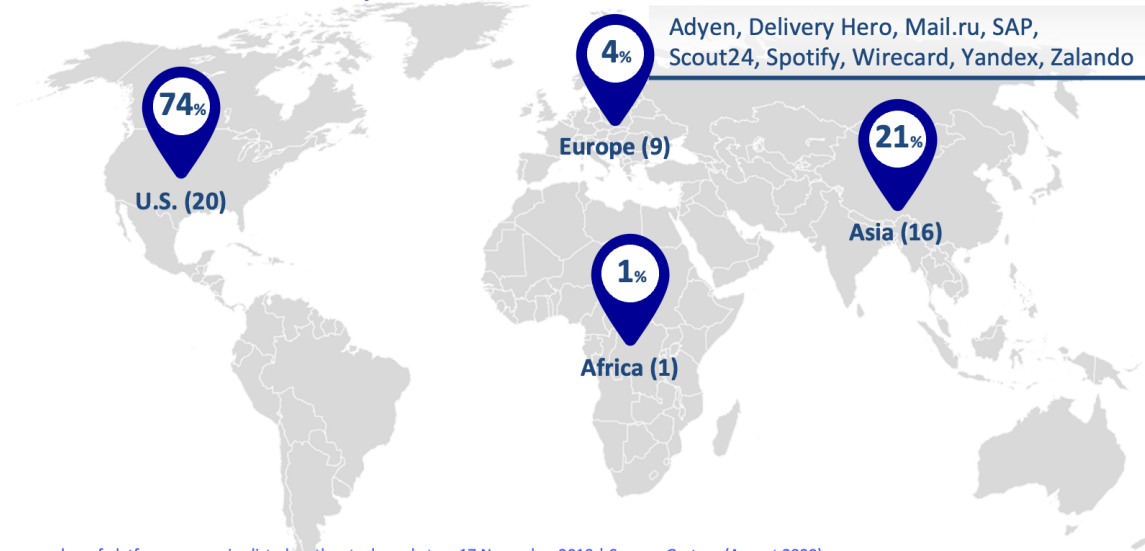


**Industrial IoT & B2B Applications**



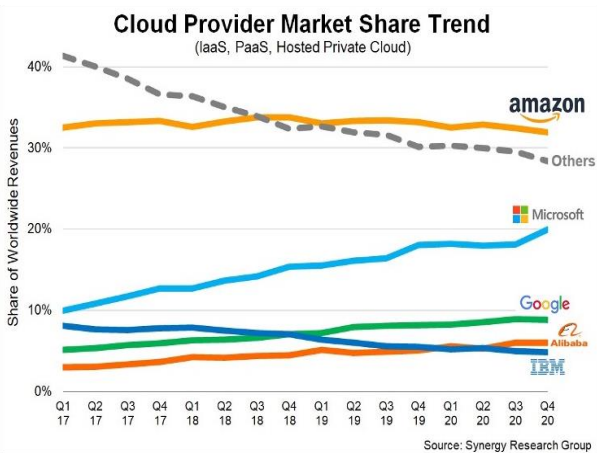
**Sectoral Demand**  
for interoperable, green, secure, multi-cloud

## The EU share in the Platform Economy

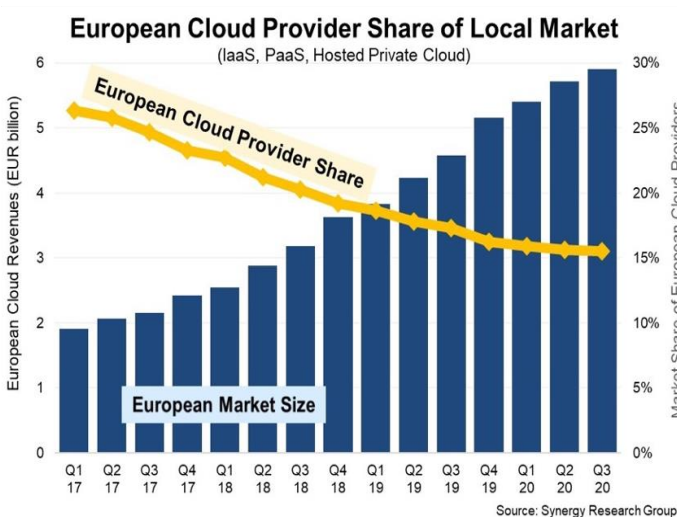


n = number of platform companies listed on the stock market on 17 November 2019 | Source: Gartner (August 2020)

## • Globally



## • In Europe



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

## EU Digital Market 2025

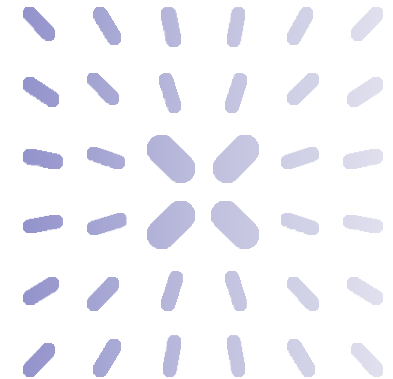
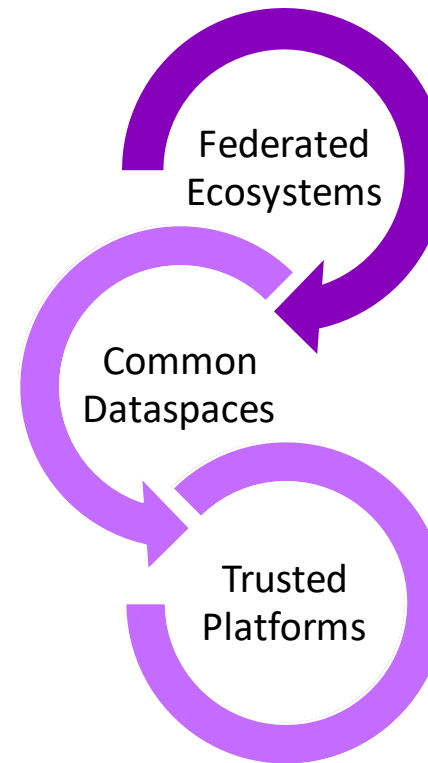
- EU CSP Providers Market Share = <10%
- EU TAM on Data Platforms = 8-10% EU GDP
- EU Economy Footprint Largely SME = >80%

## EU Economy 2025

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

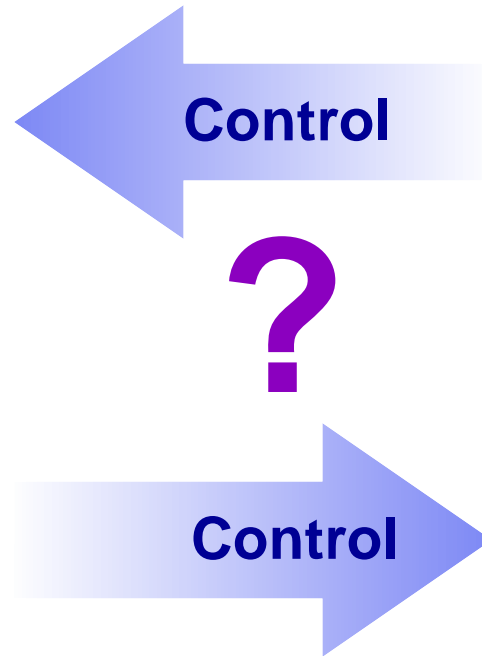
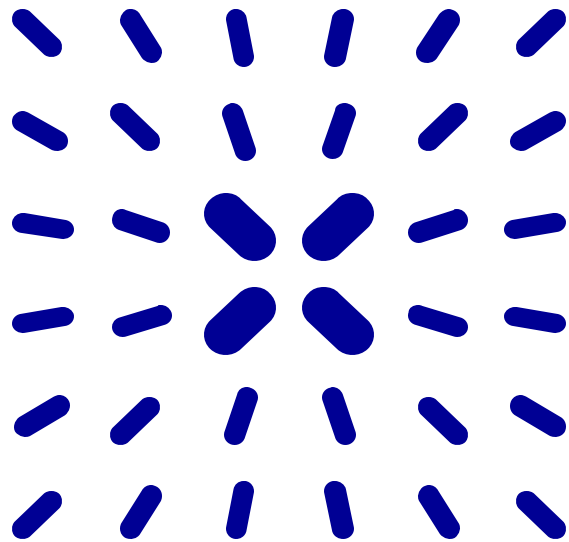
## EU Sovereignty in 2025:

- 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

Distributed      Open      Transparent



Trust & Sovereignty



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.



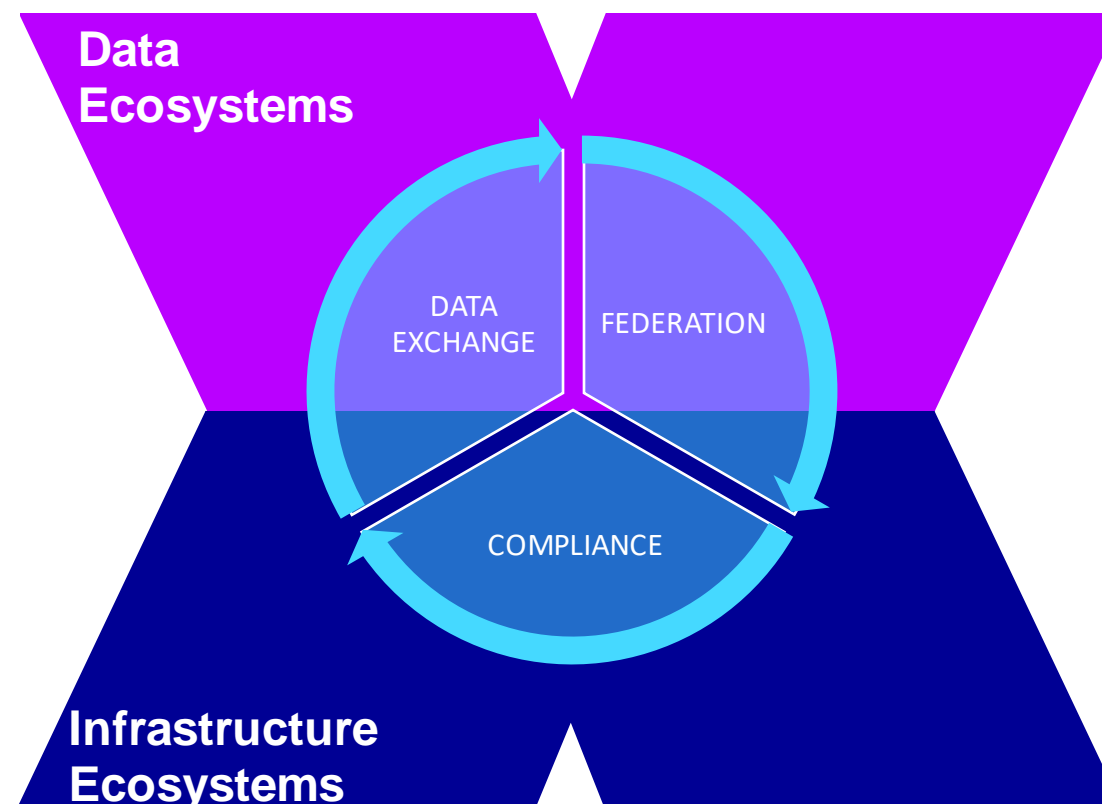
## Gaia-X Compliance

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




**Gaia-X is**

- > A single point of definition of Gaia-X architecture & rules
- > Making available an open implementation to all
- > A qualification authority for Gaia-X compliance



**Gaia-X Is Not**

- > A formal standardization body
- > A SW or HW product or cloud platform
- > A runtime implementation of any Gaia-X service



**Gaia-X  
vs  
AISBL**

- > Gaia-X project is driven by the Association
- > Gaia-X architecture is developed by members
- > Gaia-X services will not be operated by the Association

## What we do



**Specify**

**Specs**



**Develop**

**Code**



**Qualify**

**Labels**



# 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?**

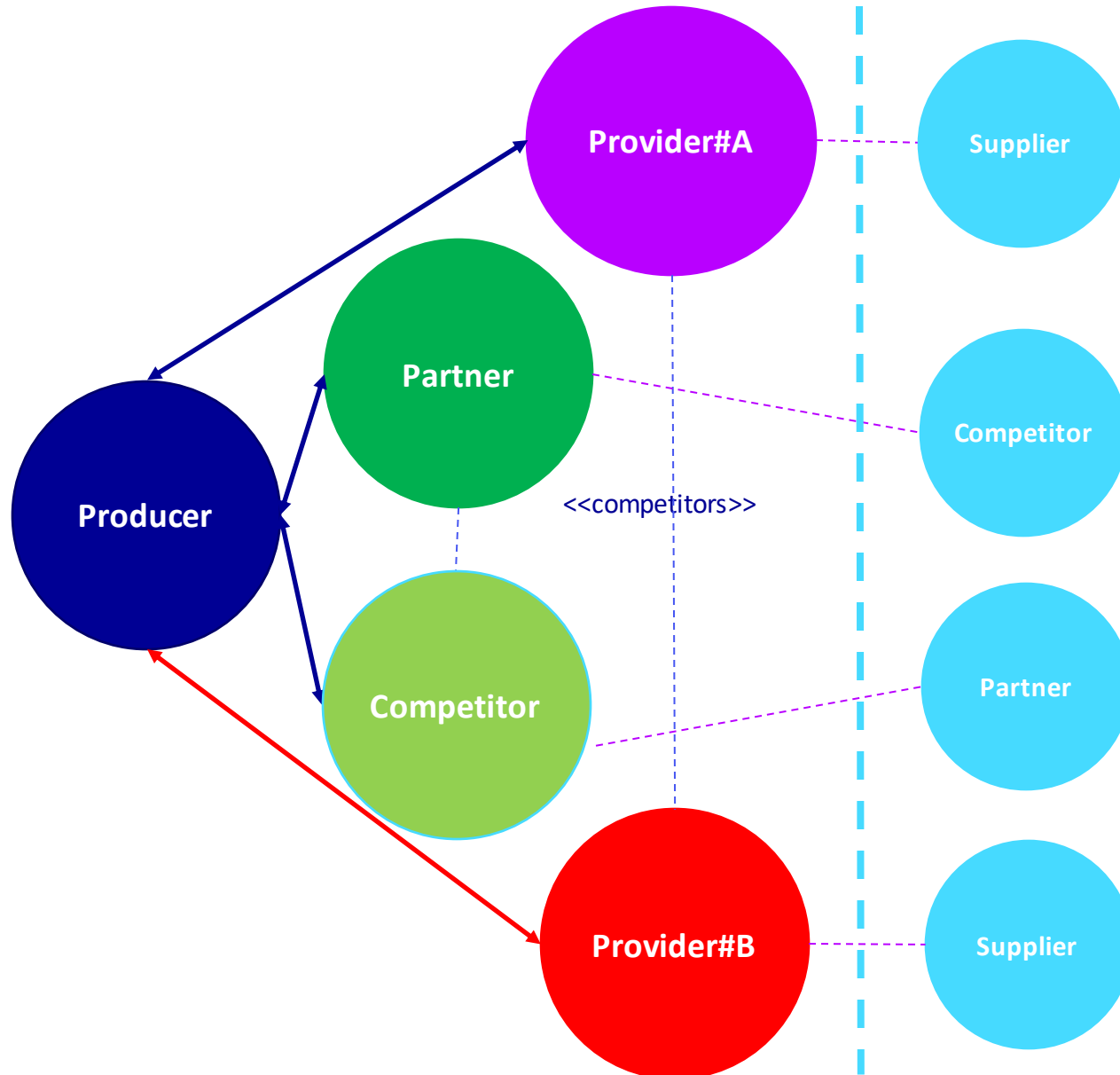


## Industry X ... Data Spaces



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

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



## THE BUSINESS PROBLEM:

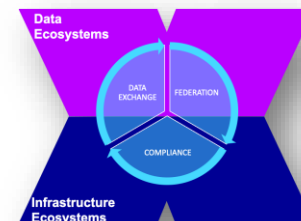
- Identify business use cases
- Sell inside your organization
- Identify potential federation participants
- Build consensus
- Find common business outcomes/interests
- Offer reciprocal and balanced outcomes

## 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**

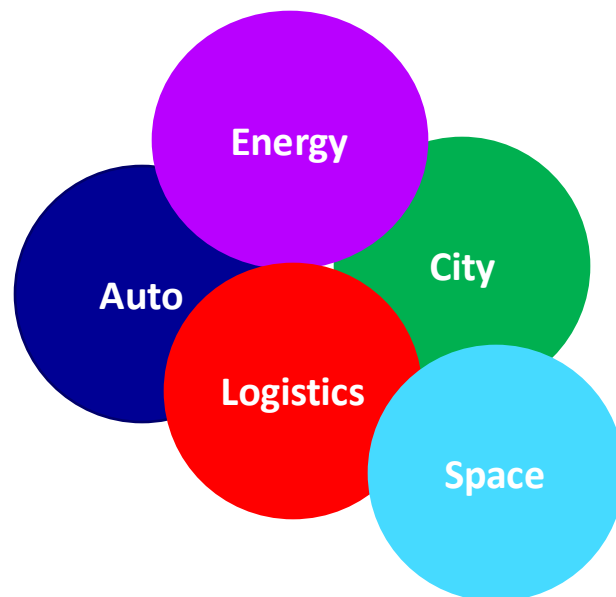
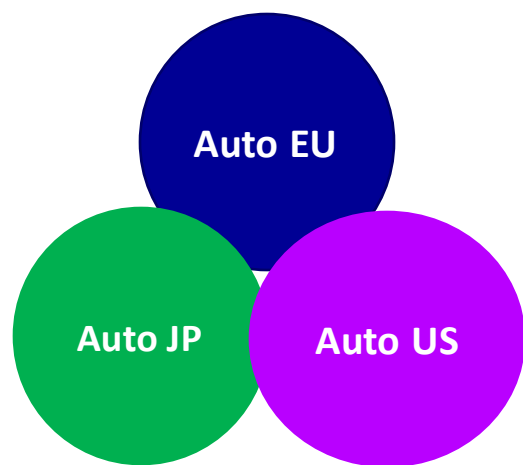
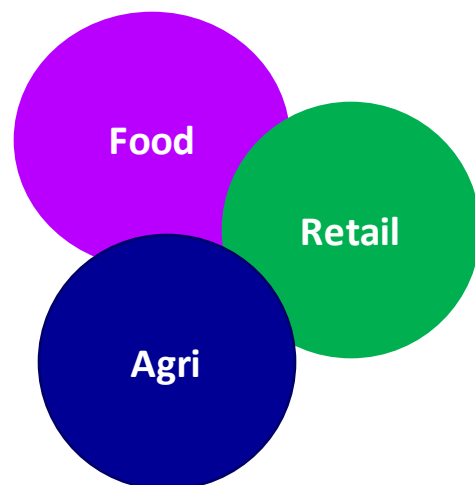
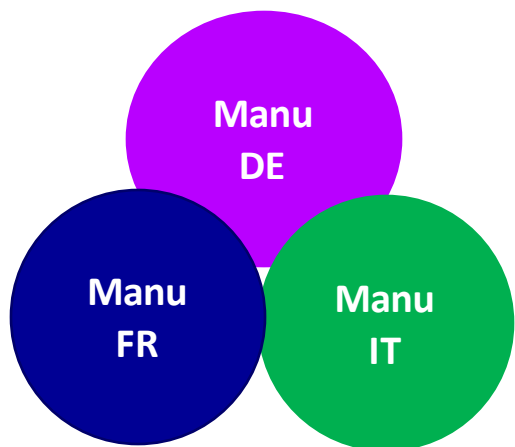


**Gaia-X  
Helps**





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



## THE BUSINESS PROBLEM:

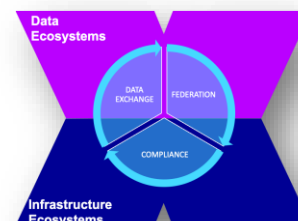
- Conceive x-fed/domain business use cases
- Identify existing federations
- Trust compatible federations
- Sell inside your orgs/fed(s)
- Find common business outcomes/interests
- Offer reciprocal and balanced outcomes
- Design common governance models
- Define x-federators

## 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

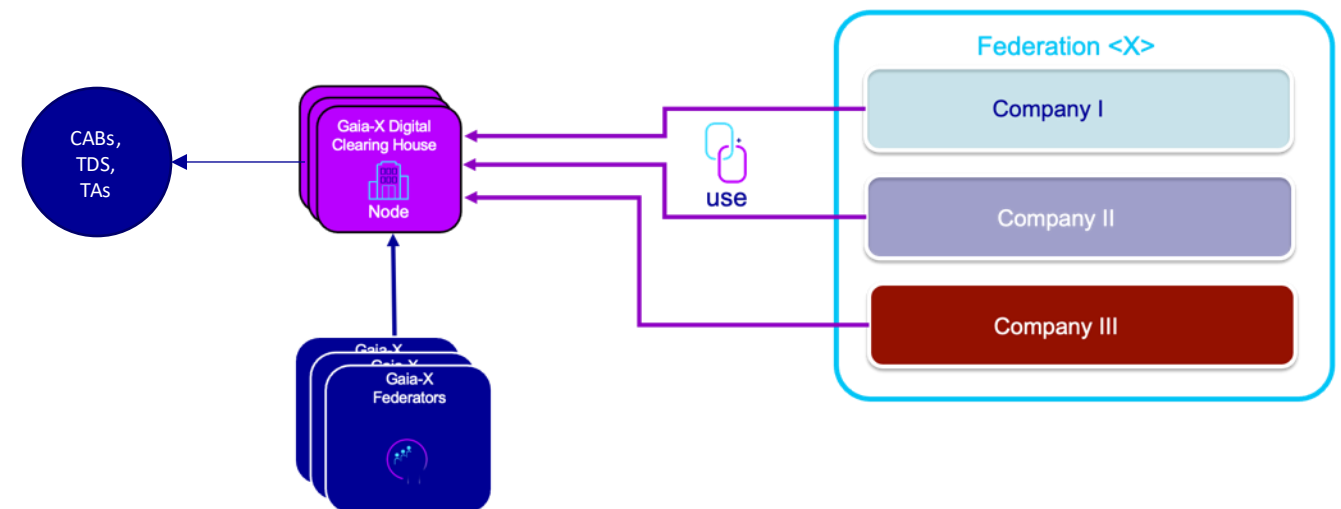
## THE GXDCH:

- 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?  
...

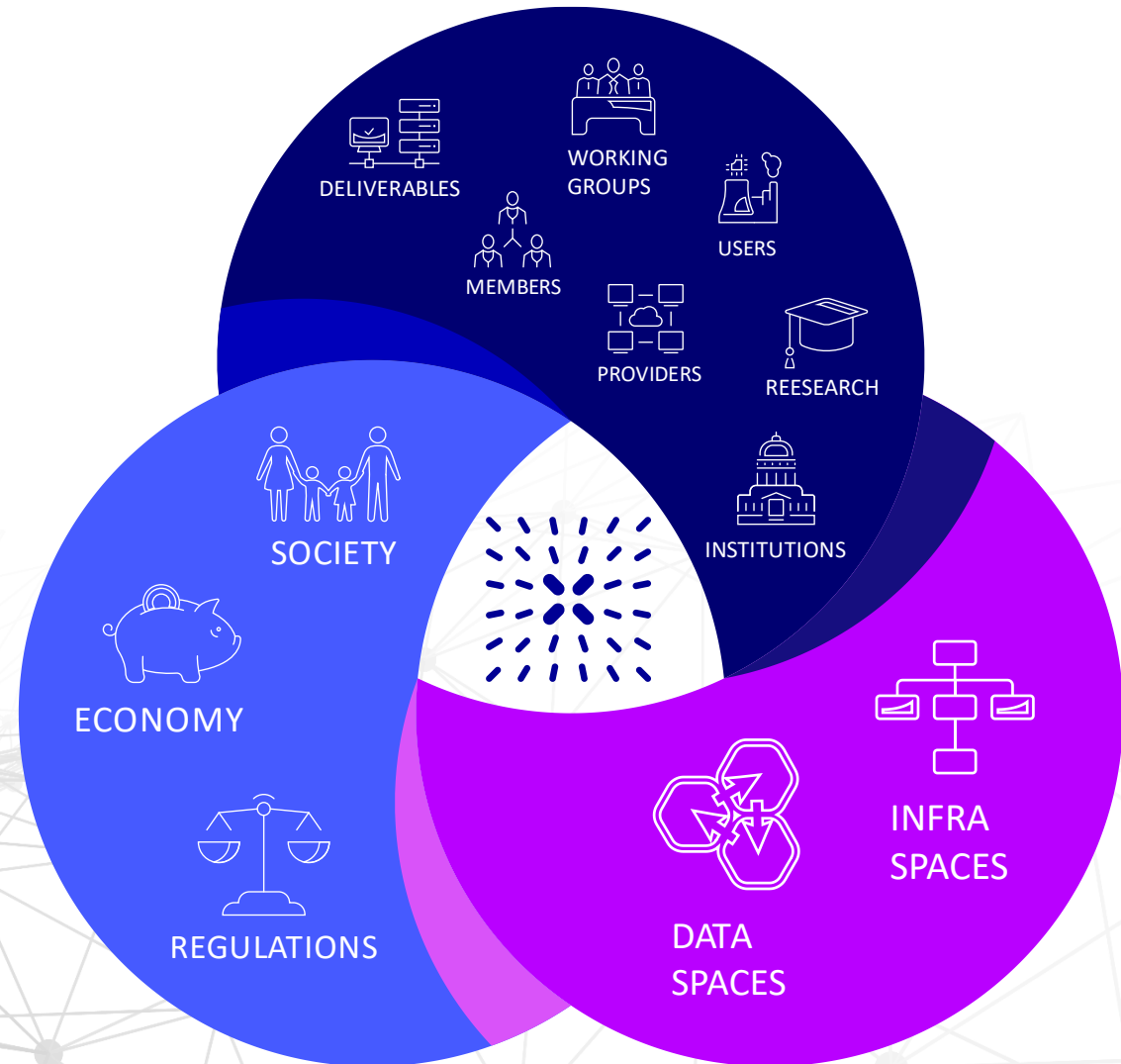


# Market Adoption in Figures

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!

**Francesco Bonfiglio** | CEO Gaia-X  
[linkedin.com/in/francesco-bonfiglio](https://www.linkedin.com/in/francesco-bonfiglio)  
[francesco.bonfiglio@gaia-x.eu](mailto:francesco.bonfiglio@gaia-x.eu)

