

# Gaia-X

## General Overview

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Chief Executive Officer - Gaia-X Association



# Gaia-X in a nutshell

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# Gaia-X in a nutshell



**VISION:** Enable trusted decentralised digital ecosystems

**MISSION:** Creating the de facto standard aligned with EU values by developing a set of policies, rules, specifications and a verification framework

## A FEDERATED AND SECURE DATA INFRASTRUCTURE

Gaia-X strives for innovation through digital sovereignty.

- ▶ Our **goal** is to establish an ecosystem, whereby data is shared and made available in a trustworthy environment.
- ▶ Our **intention** is that we give the control back to the users by retaining sovereignty over their data.
- ▶ Our **outcome** will not be a cloud. It is a federated system linking many cloud service providers and users together in a transparent environment that will drive the European data economy of tomorrow.

## 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 DO WE DELIVER?



# What is Gaia-X

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**Established in 2021** as a privately funded not-for-profit Association, Gaia-X brings together an international industrial, academic, and political community with the aim of building a common standard for transparent, controllable, and interoperable technologies in order to enable the creation of common data spaces, and in doing so boost the European data economy.

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

# Gaia-X Vision & Mission




**VISION:** Enable trusted decentralised digital ecosystems



**MISSION:** Creating the de facto standard aligned with EU values by developing a set of policies, rules, specifications and a verification framework

# What we are & what we do






**Gaia-X is**

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**Specify**

**Specs**




**Gaia-X Is Not**

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**Develop**

**Code**



**Gaia-X  
vs  
AISBL**

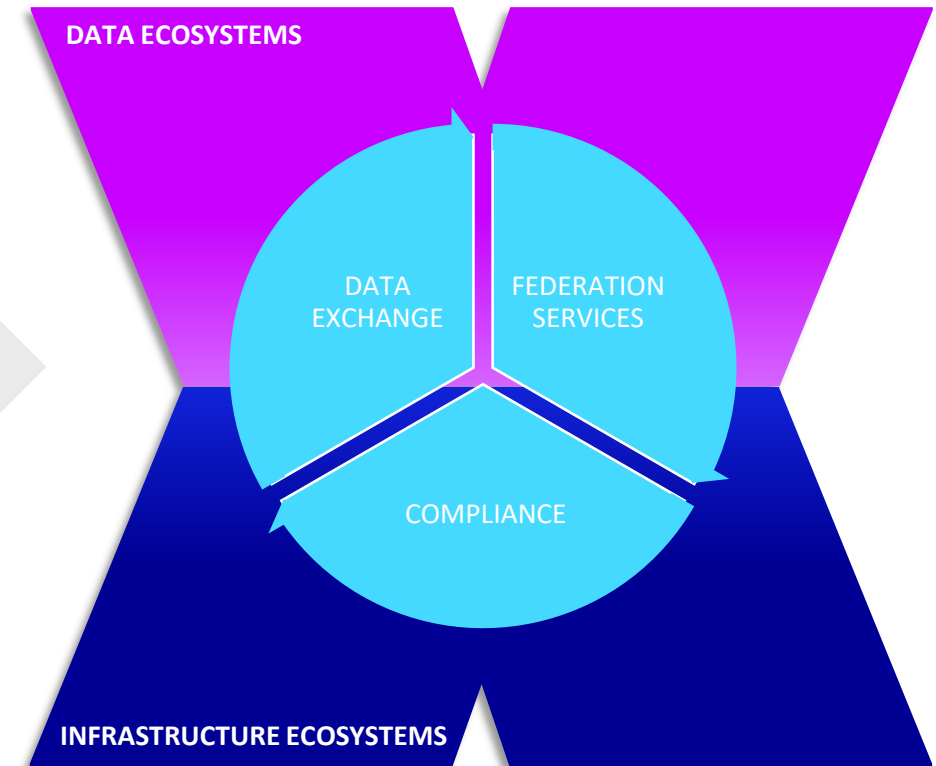
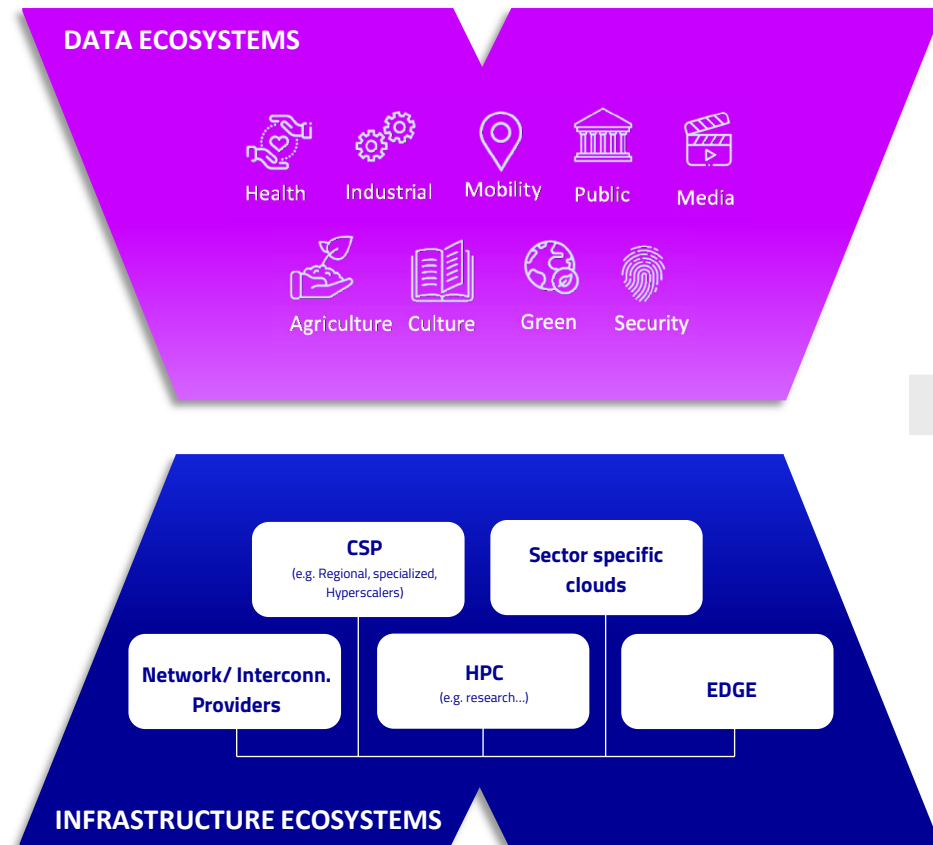
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**Qualify**

**Labels**

# The existing Split X Model & Our X Model





# The existing Split X Model

## Disjoint Data & Infrastructures Ecosystems



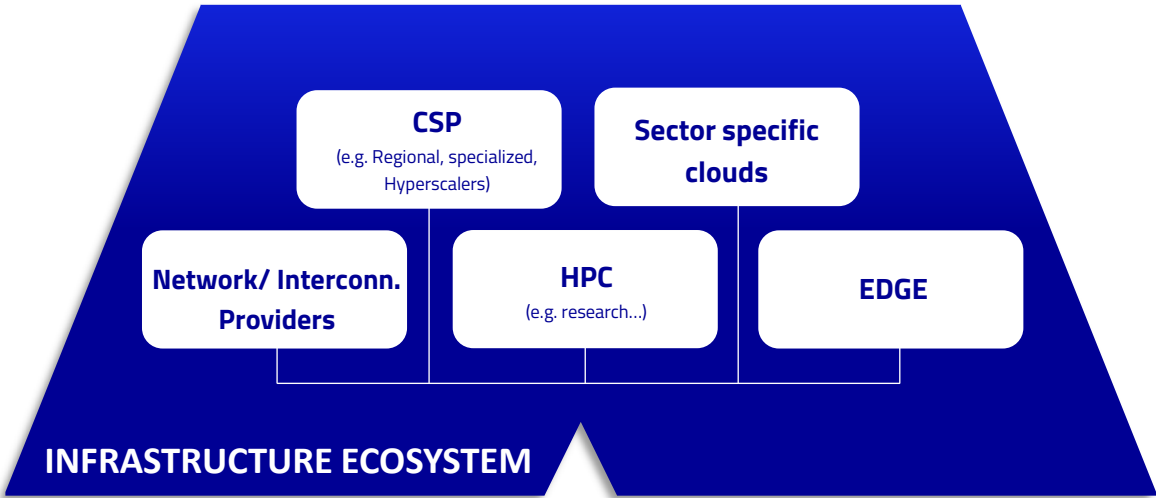
### DATA

Untapped, fragmented, disjoint, no secure exchange mechanism



### INFRASTRUCTURES

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



# Our X Model

## Connecting Data - Infrastructures 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.



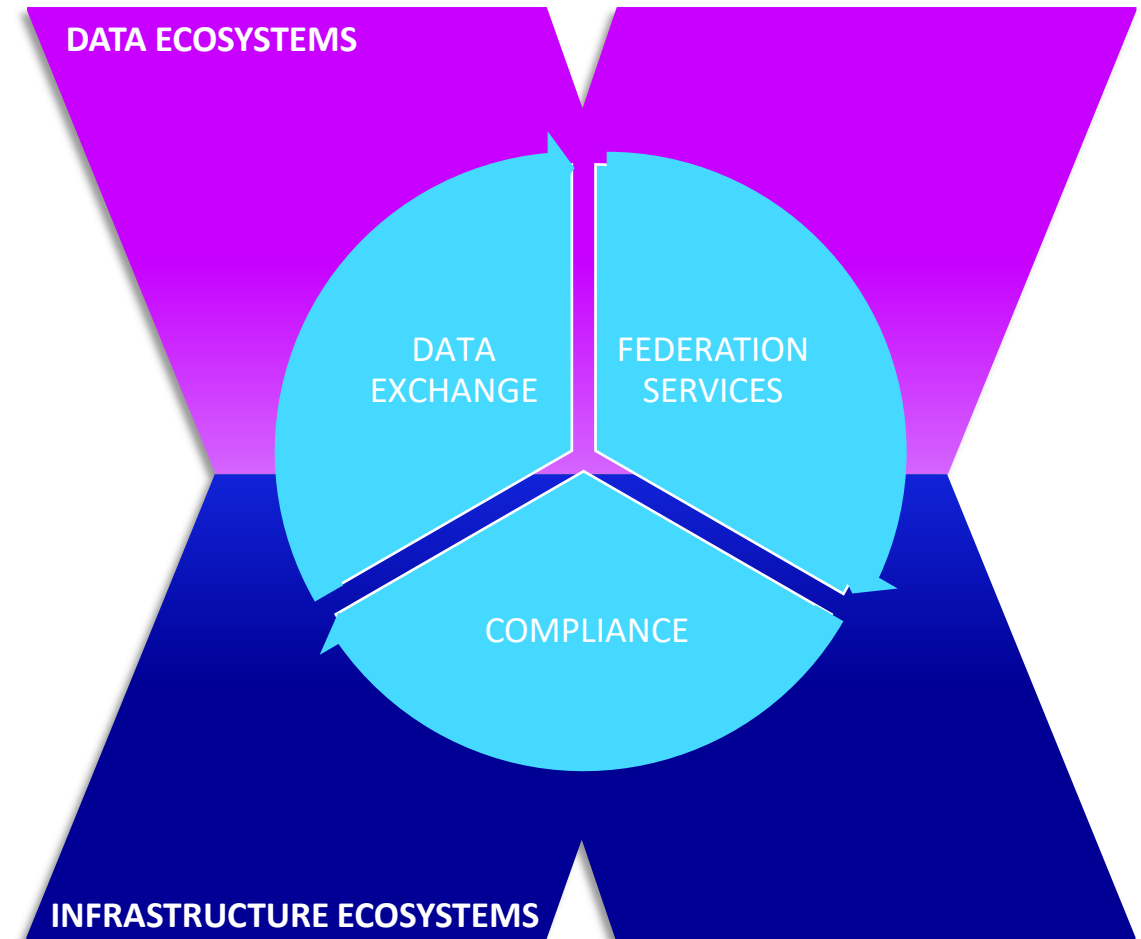
### Gaia-X COMPLIANCE

Decentralized services to enable objective and measurable trust.

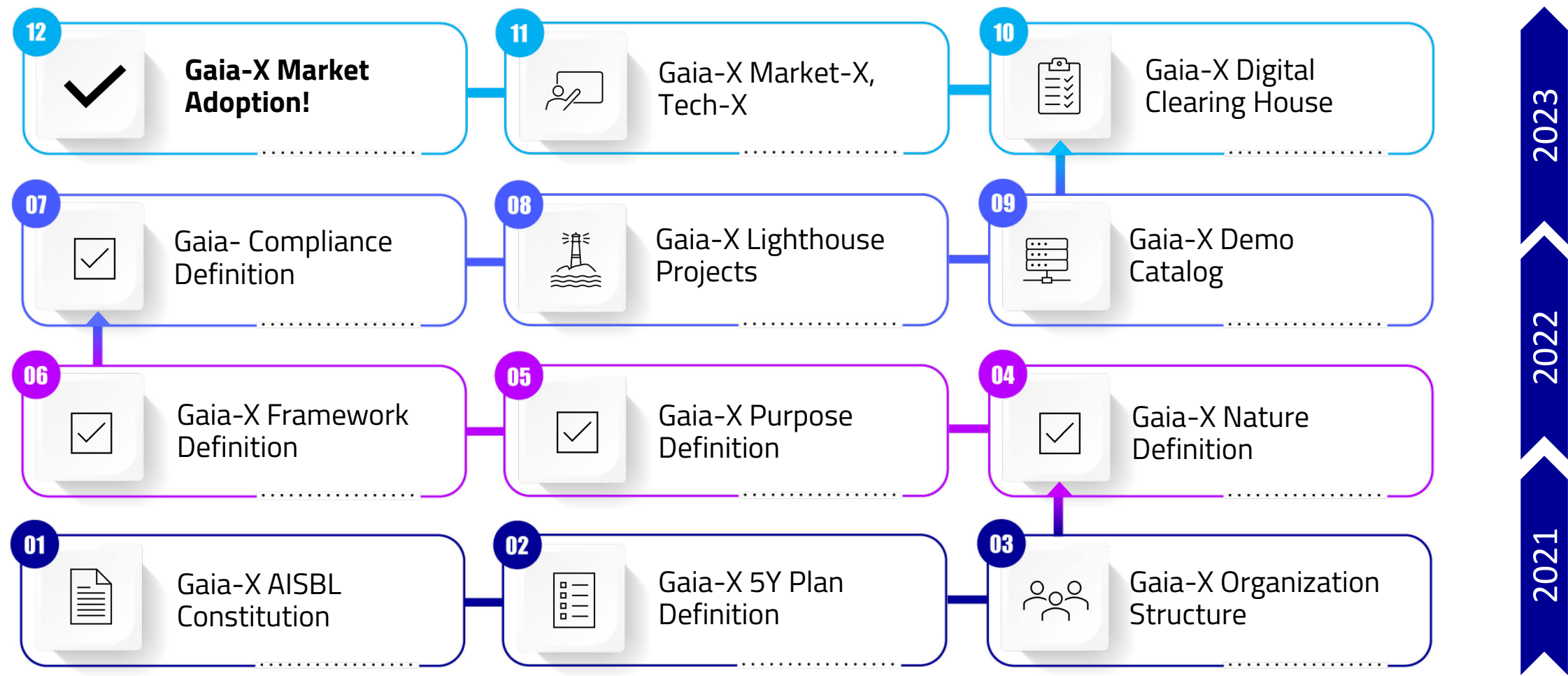


### LABEL FRAMEWORK

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



# Gaia-X From Inception to Market



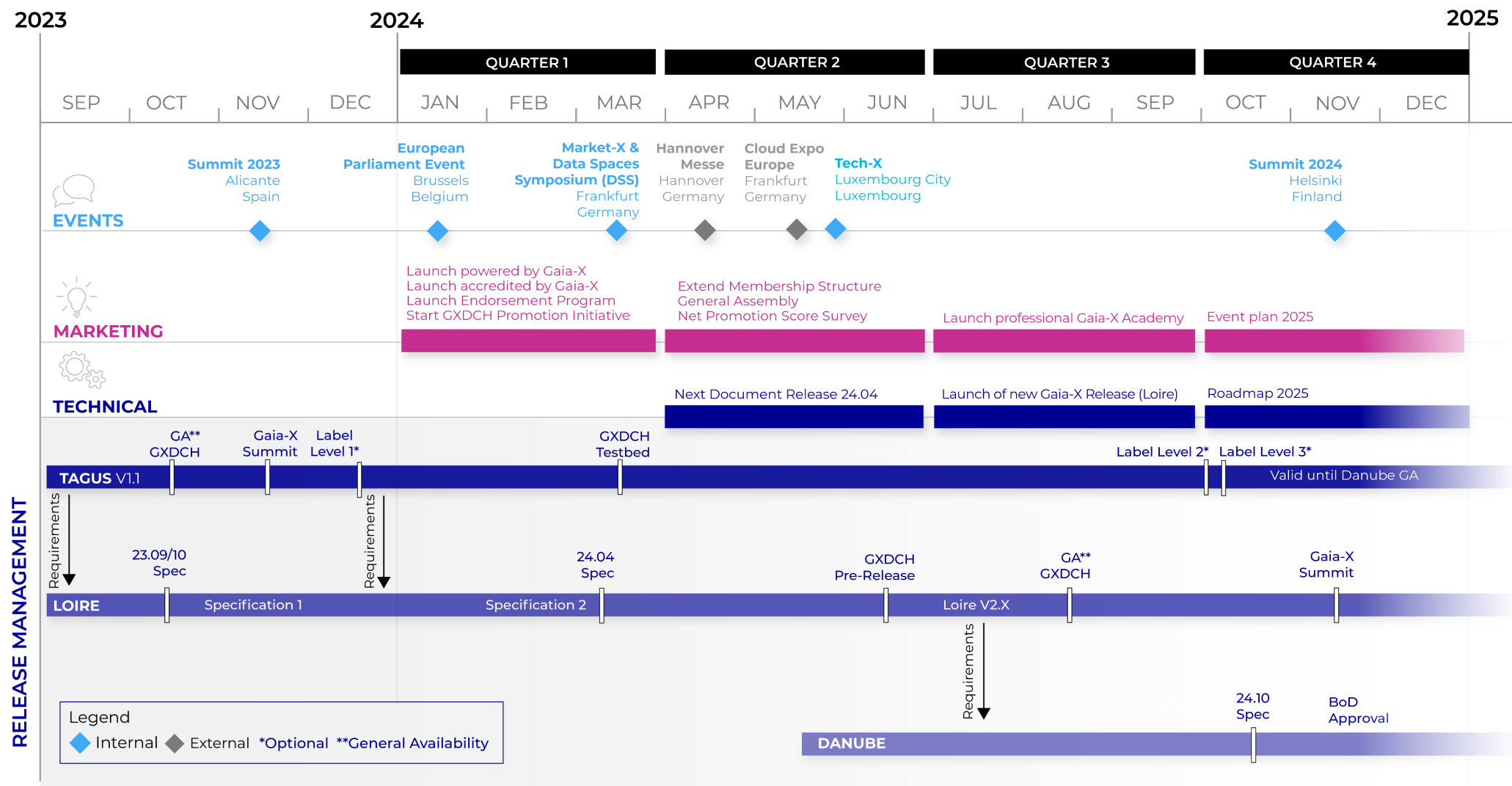
# Gaia-X Strategy



# The Gaia-X Strategic Plan in a nutshell



# Gaia-X Strategic Roadmap 2024



# Who we are



# Lighthouse Data Spaces



Agriculture  
Agdatahub

Automotive Supply Chain  
Catena-X

# Lighthouse Projects

Manufacturing  
Accurate

Infrastructure & Technology  
Boot-X

Aeronautics, Space Sector  
Cooperants

Manufacturing, Industry 4.0  
Data4Industry-X

Urban Data Cooperative  
ELINOR-X

Mobility, Transport & Tourism  
EONA-X

Energy  
Energy data-X

Manufacturing, Industry 4.0  
EuProGigant

Finance  
EuroDaT

Mobility & Transport  
Gaia-X4 Future Mobility

Health  
HEALTH-X dataLOFT

Mobility  
Mobility Data Space (MDS)

Energy  
Omega-X

Education  
PROMETHEUS-X

Electronics Supply Chain  
SCSN

Cloud Services  
Structura-X

Health  
TEAM-X



## EUROPE 16



## INTERNATIONAL 5



## IN PROGRESS 8



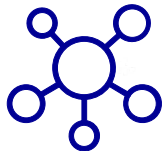
# Gaia-X Members



**300+** companies and organisations



**3 out of 4** organisations are private companies, **about half** of which are SMEs\*



Organisations from different industries, such as Mobility, Energy, Manufacturing, Finance etc.



Mentioned explicitly in the **European Data Strategy** and proactively addressing key issues. Exchange between Gaia-X and the **European Commission** to identify synergies between Gaia-X and initiatives and programs such as the **European Cloud Federation, CEF 2** and **Digital Europe**.



Large Companies



SMEs



Start-Ups



Universities



R&D



Associations

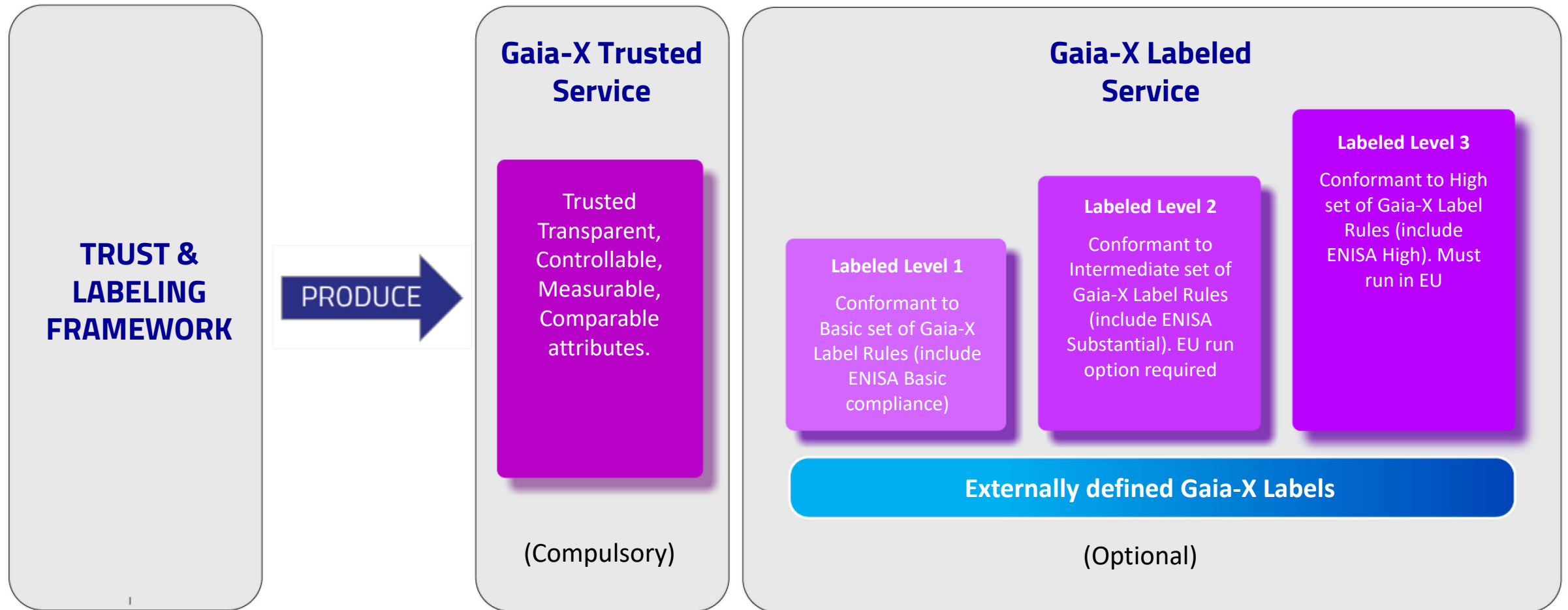


Public Sector

# How does it work? – Tech Insight

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# Gaia-X Rules: Trust & Labelling Framework







To build a Dataspace, we need:

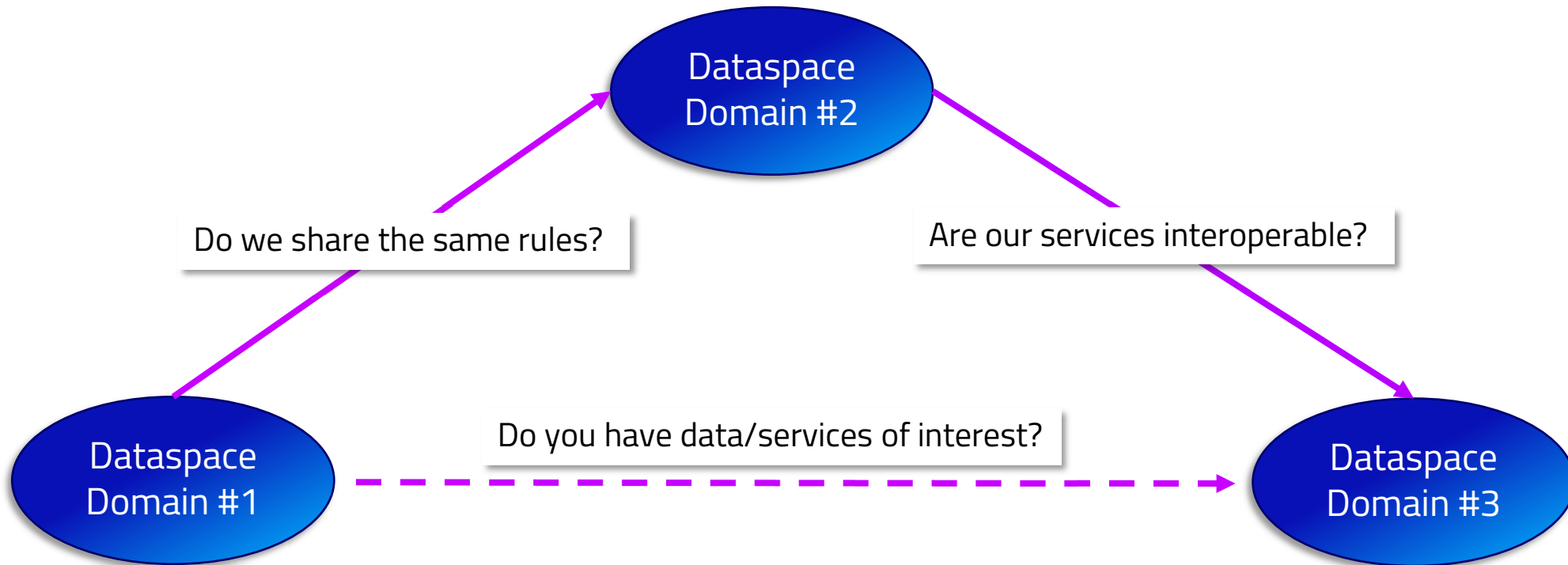
- ✓ A **governance** which can be operationalised.
- ✓ **Infrastructures** adopting the governance.
- ✓ **Parties** adopting the **governance**, using the **infrastructures** *"to access and use data in a fair, transparent, proportionate and/non-discriminatory manner with clear and trustworthy data governance mechanisms."*[1]

Problems/Opportunities:

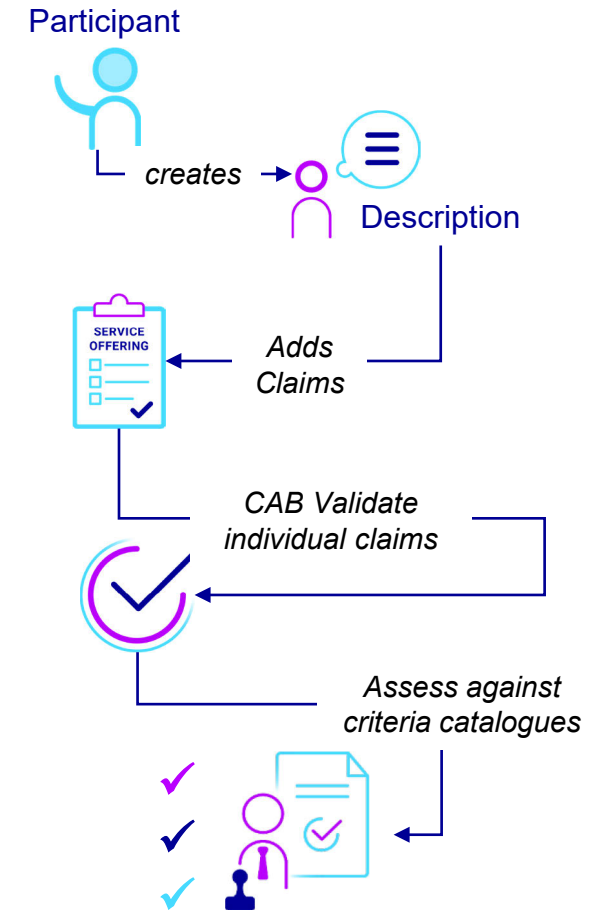
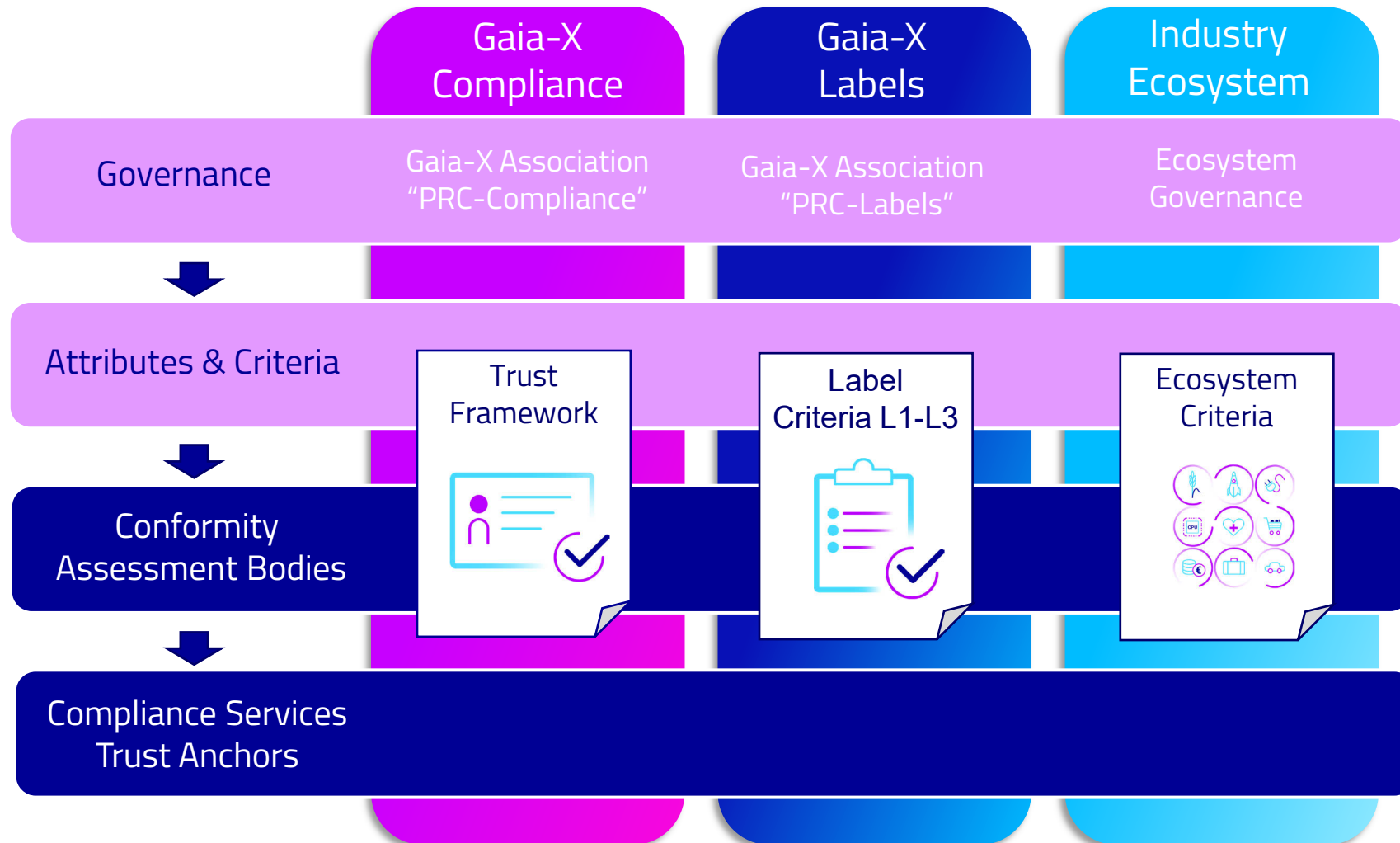
- Sharing data is not new and there are 1000's of existing setups that could qualify as "dataspace"
- They are not discoverable
- Governance and infrastructure interoperabilities are hard - if not impossible - to assess
- Scaling is expensive

# Gaia-X proposals


- Federated catalogues  for Services and Products.
- A worldwide-ready  governance based on European values .
- Easy customisation and extension  of the governance per domains, verticals, local markets, ...
- Interoperability measurement  **across** dataspaces  $d = distance(D1, D2)$




# Gaia-X Compliance - Enable Trust & Governance




## GXDCH Components\*




Gaia-X Registry (compulsory)




Gaia-X Compliance (compulsory)




Notary (compulsory)




Wizard (optional)



Catalogue (optional)



Credential Event Service (Optional\*\*)



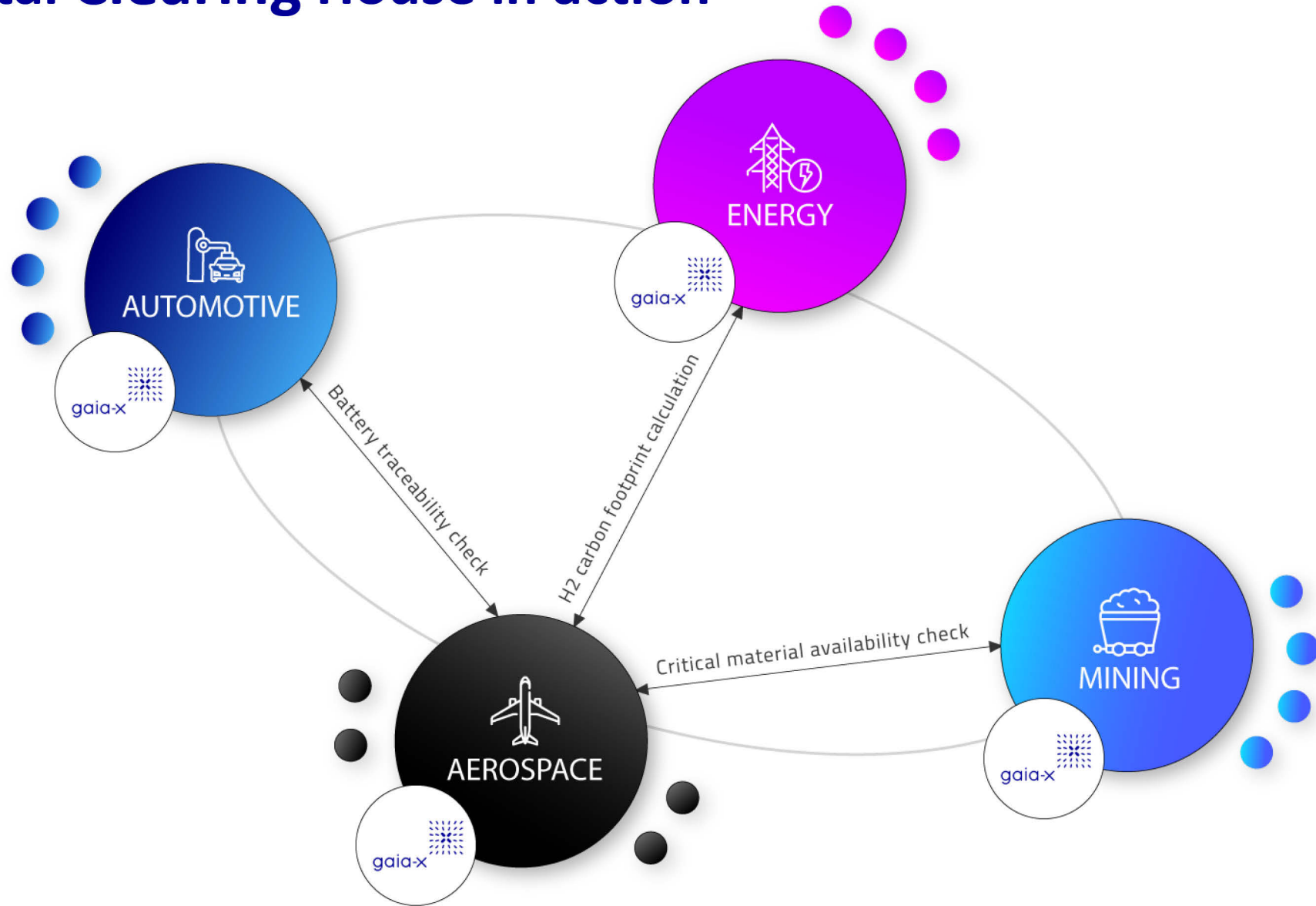
\* Current list, may expand in future releases  
\*\* CES will become mandatory in Loire (next release)  
\*\*\*not all criteria can be automated, “+” means automated verification if the evidence issuer (Standard & CAB)

## Gaia-X Conformity and Labels

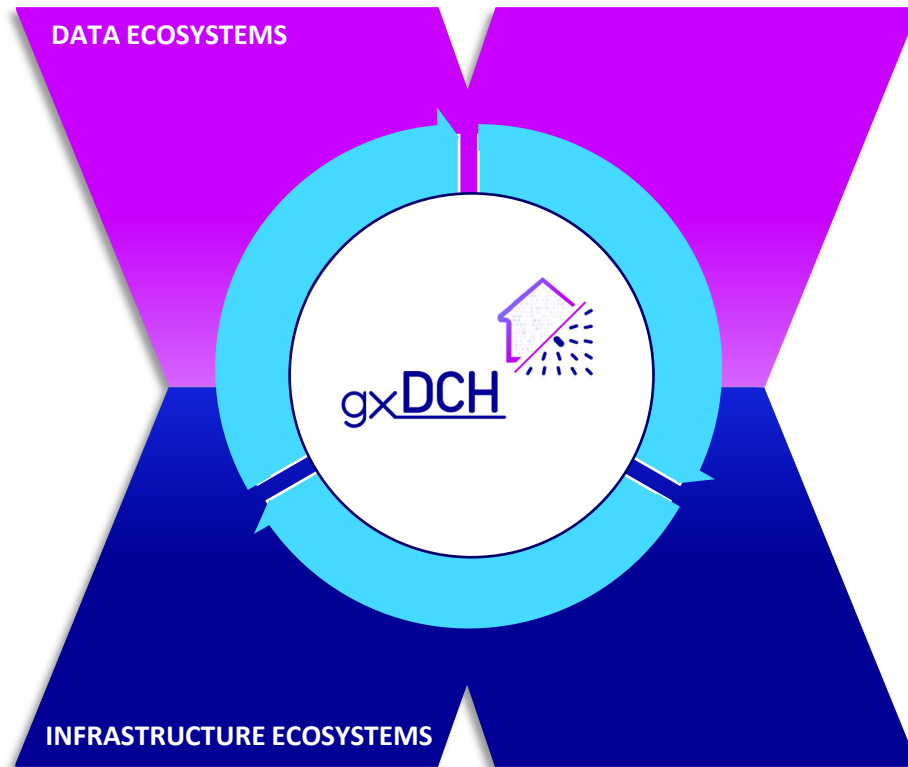
	C	L1	L2	L3
Declaration of Service or Product	✓	✓	✓	✓
Signed with verified method (eg.eIDAS)	✓	✓	✓	✓
Automated validation by GXDCH	✓	✓	✓	✓
Automated verification by GXDCH***	✓	✓	+	+
Data Exchange Policies	✓	✓	✓	✓
Certified Label Logo		✓	✓	✓
Data protection by EU legislation		✓	✓	✓
Manual verification by CAB			✓	✓
Provider Headquarter within EU				✓



# Gaia-X Digital Clearing House in action



# How to get started!



- Request a Legal Registration Number credential\*\*.
- Create and sign my Legal Participant credential.
- Create and sign the Gaia-X Terms & Conditions credential.
- Create and sign my Service Offering credential.
- Send credentials for validation and request proof of Gaia-X Compliance.
- Publish my Service Offering in the network of catalogues.

\*All actions done in the wizard are also available via API.

Each step could be done on a different GXDCH instance.

\*\*Credentials are equivalent to digitally signed attestations.

# What's in for me– Business Insight

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# Gaia-X Benefits for Users & Providers



## BENEFITS FOR **USERS**

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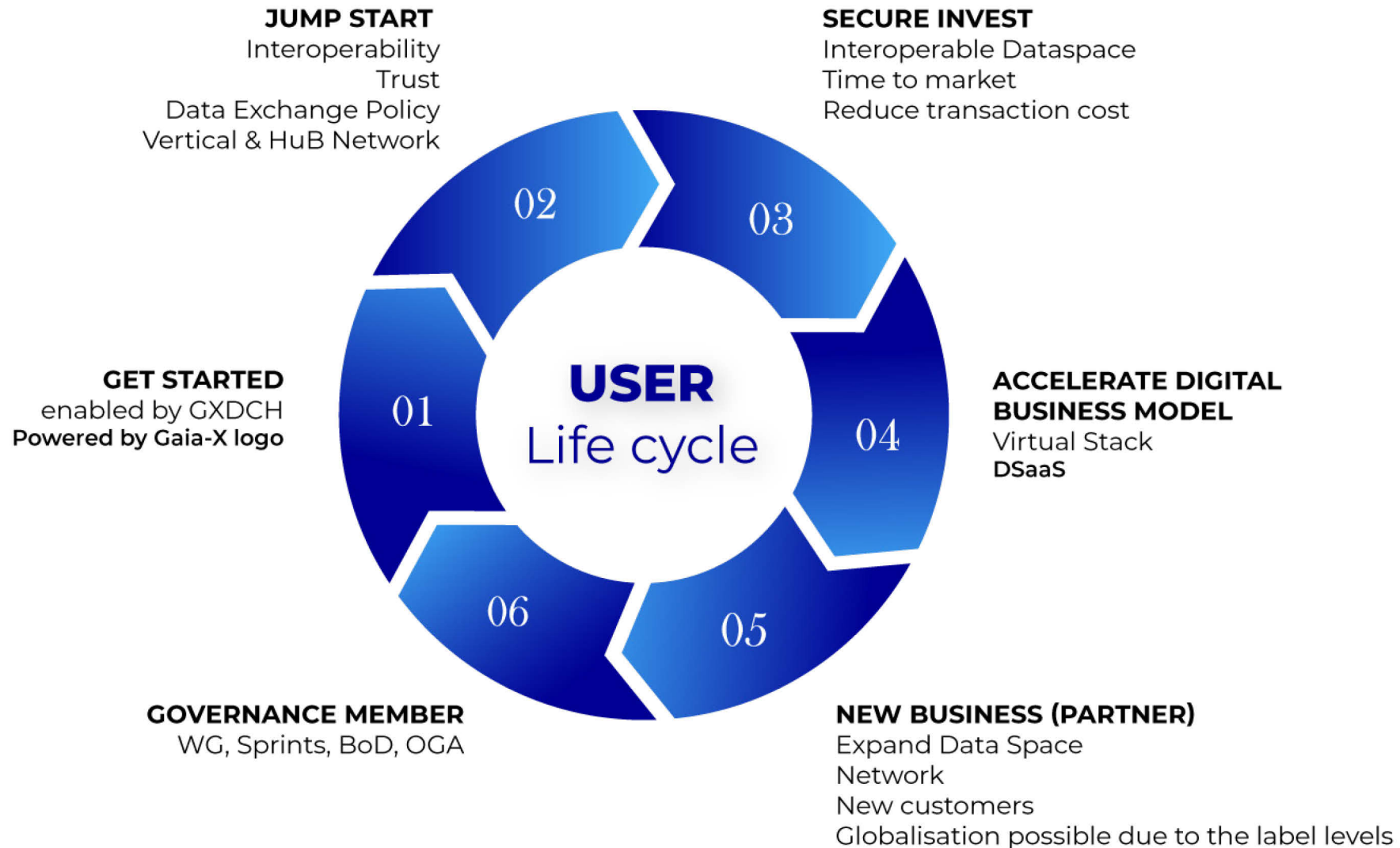
1. Build and implement common rules in order to be able to exchange data in a trusted way.
2. Accelerate sovereign data driven EcoSystems.
3. Enable global data driven value chains through federated trust and interoperability.

## BENEFITS FOR **PROVIDERS**

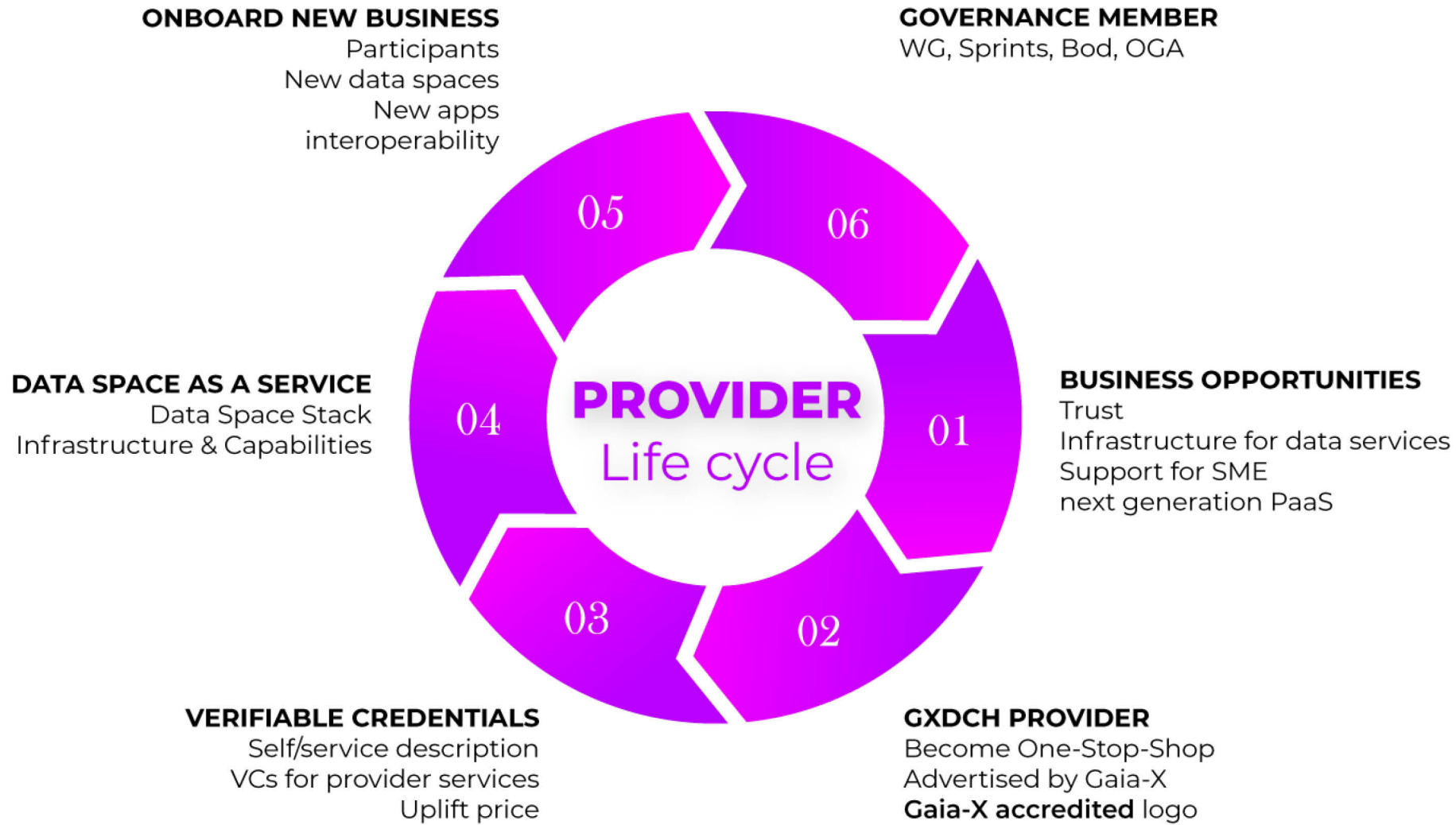
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1. Expand reach, visibility and market share by delivering services which are certified as compliant with Gaia-X.
2. Become one stop shop as a GXDCH Provider, for your existing and new customers utilising the Gaia-X EcoSystem.
3. Deliver DataSpace as a Service (DSaaS) to enable fast, cost efficient, transparent and reliable data driven Business Application.

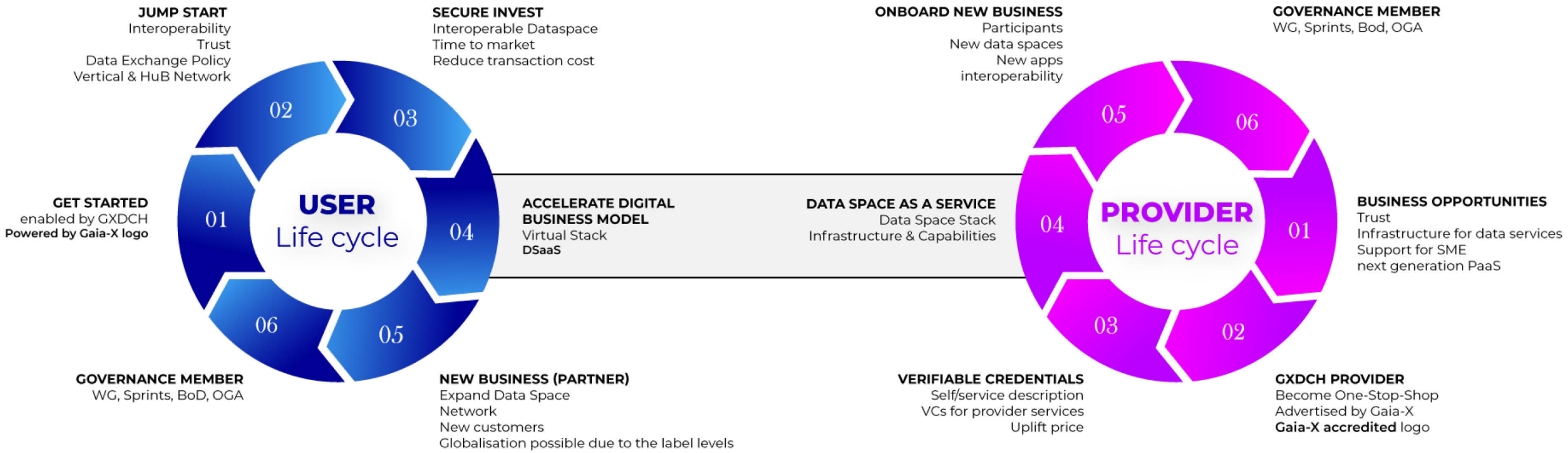
# User Life cycle



# Provider Life cycle



# Where User and Provider Connect



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# Thank you!

