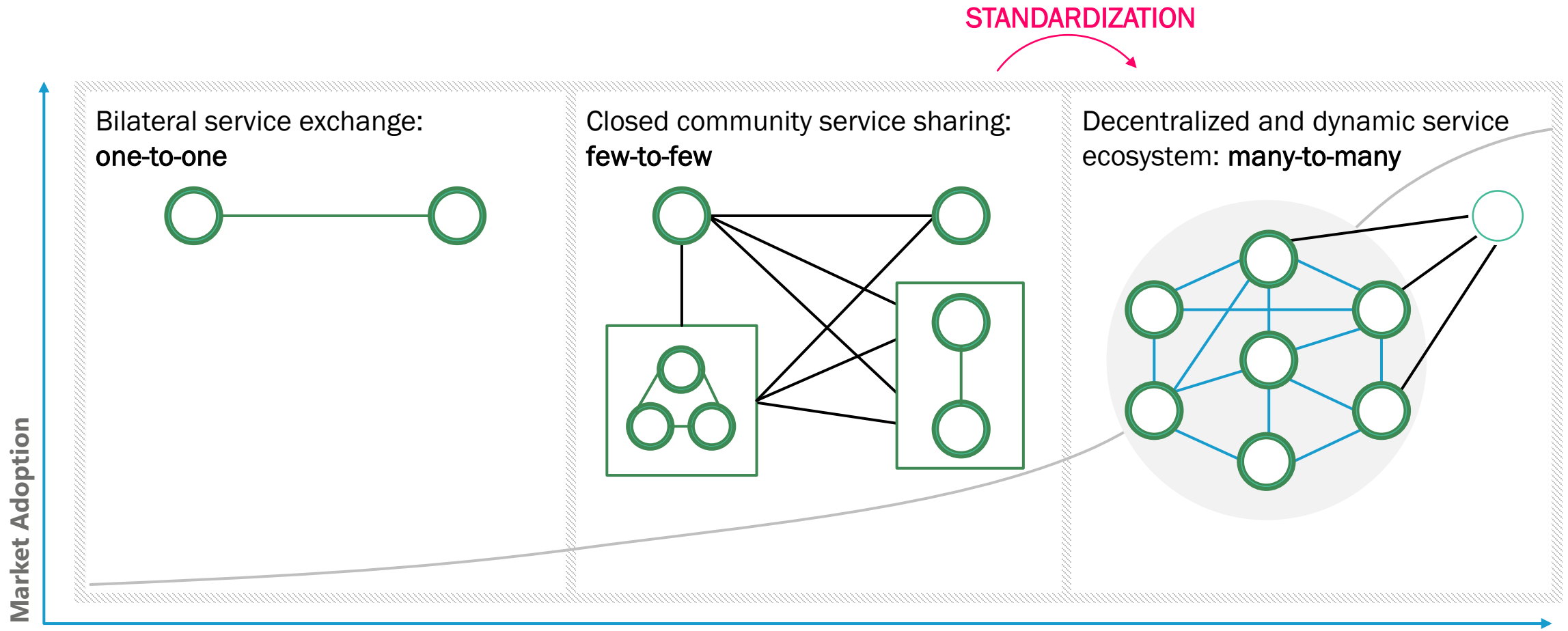


Gaia-X – “We enable Sovereign Interoperable Cloud & Data Services”

CANTO 2025, 16th of July 2025, Nassau

—
Roland Fadrany | COO Gaia-X European Association for Data and Cloud

The demand for interoperable Services



Dataspace Governance Authority and Trust Framework



Example International travel

1. Countries agree on travel “policies”
2. Countries agree on requirements for passports/IDs
3. Each country has its own process and authorities to issue passports/IDs
4. Each country defines what citizens can do with their IDs (digital public services)

Enable the Data Space Governance Authorities (DSGA) to describe and manage their Data Space compliance with their own rules /scheme / ontology / trust anchors, leveraging the technologies of the Gaia-X Trust Framework

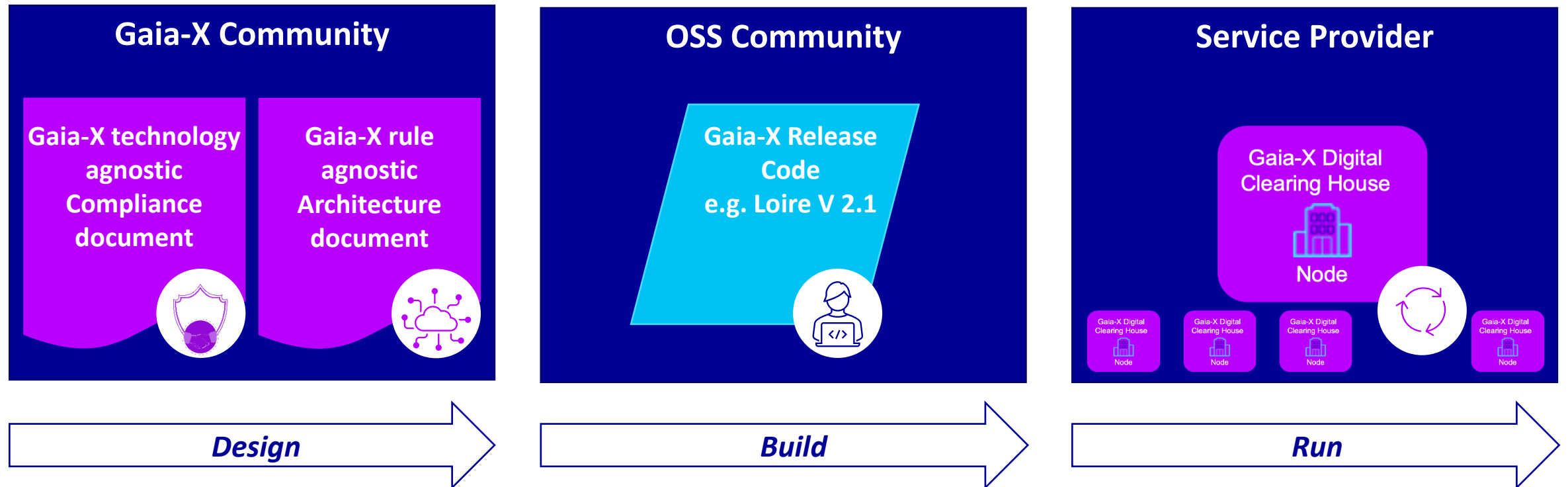
Gaia-X & Dataspaces

1. Gaia-X (members) agree on a trust framework
2. Gaia-X (members) agree on architecture and standards
3. Dataspaces establish their “onboarding” processes and DGA
4. Dataspaces define all rules inside the dataspace

Gaia-X Trust Framework - From policies to production



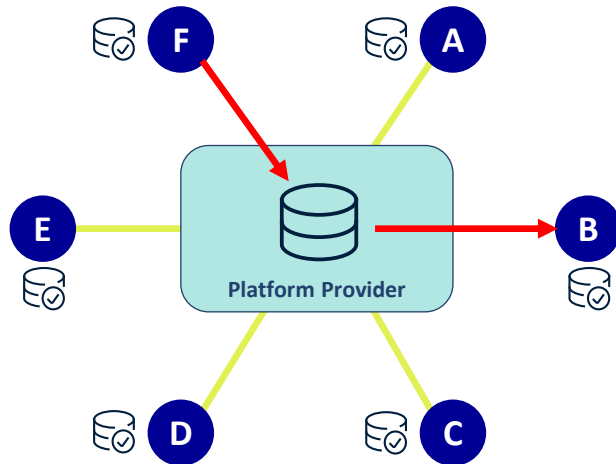
Gaia-X Governance



Gaia-X Ecosystem Realization



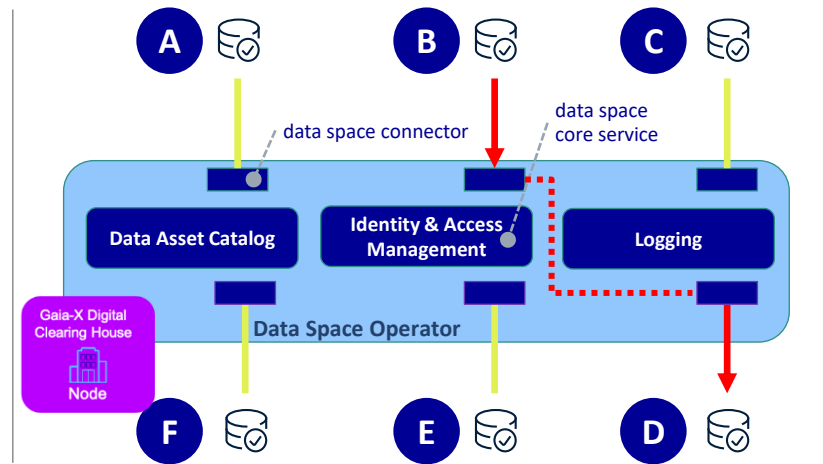
Data Platform
central provider



lead concepts:

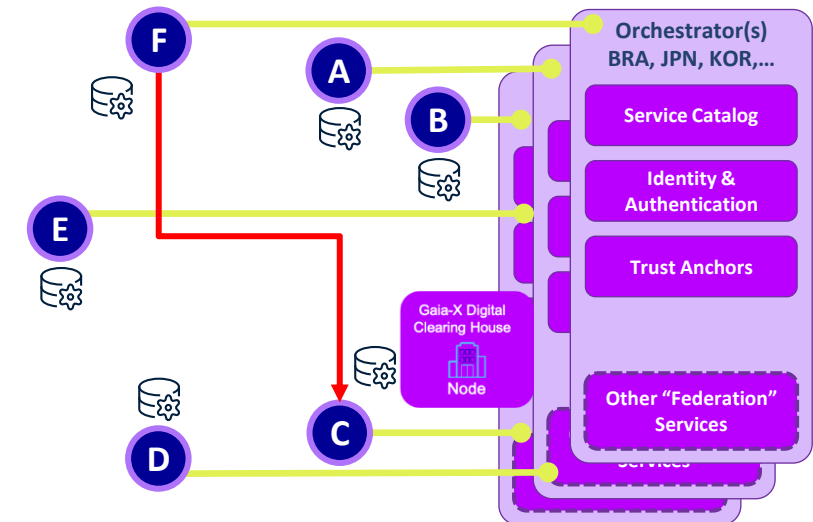
«API»

Data Space
central operator



«data asset»

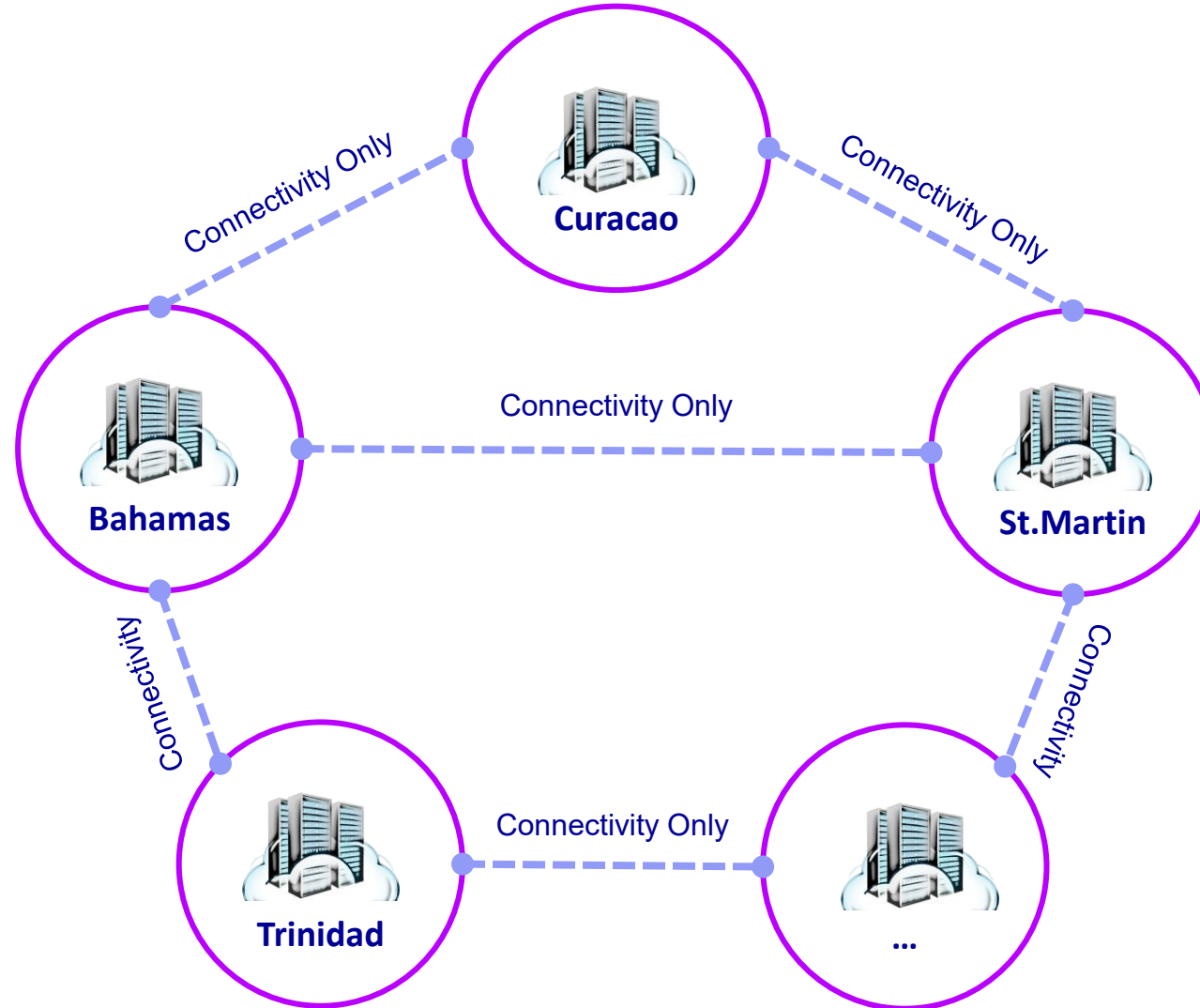
Data Ecosystem
federated orchestrator(s)



«service»

A **Gaia-X ecosystem** is the alignment structure of the multilateral set of partners that need to interact in order for a focal value proposition to materialize. It has one or more federated operators. **Gaia-X participants** and **services** are verified by one or more **Gaia-X Digital Clearing Houses** for trust, sovereignty and interoperability.

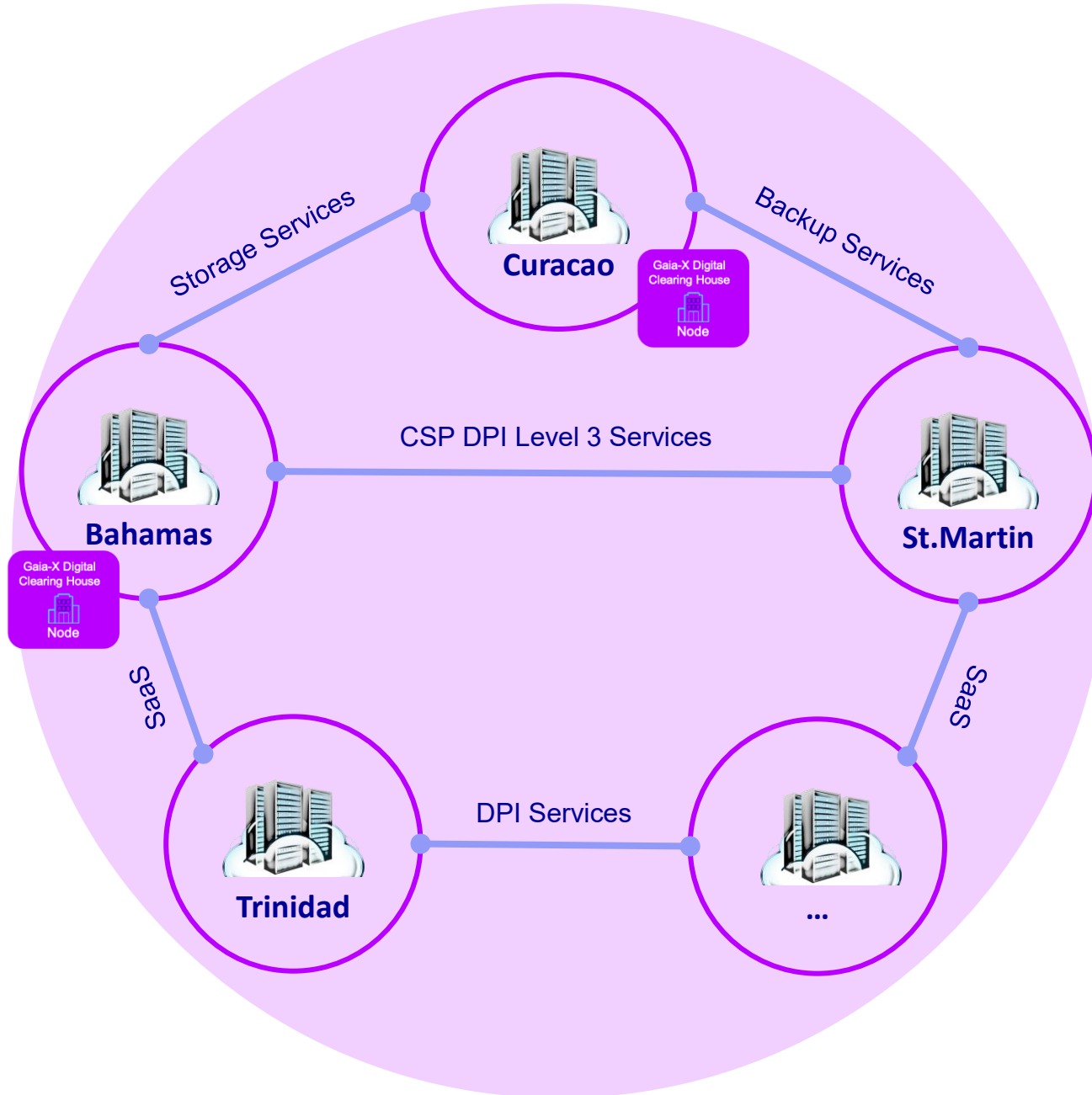
Cloud Services vs. Ecosystems – The problem in-between



Interoperable Decentralized Services on Gaia-X Trust Framework

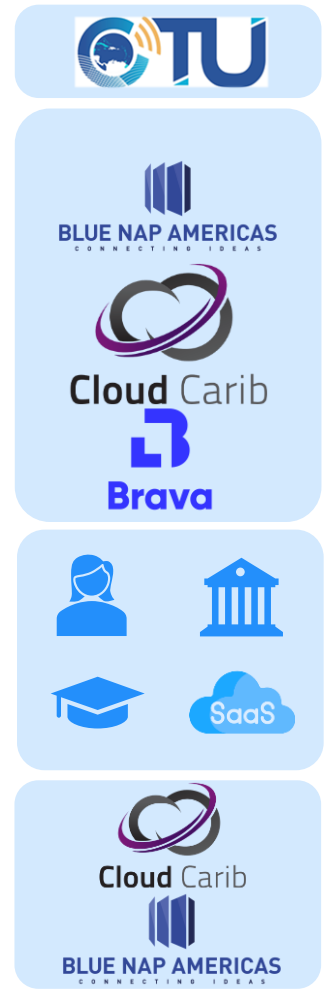
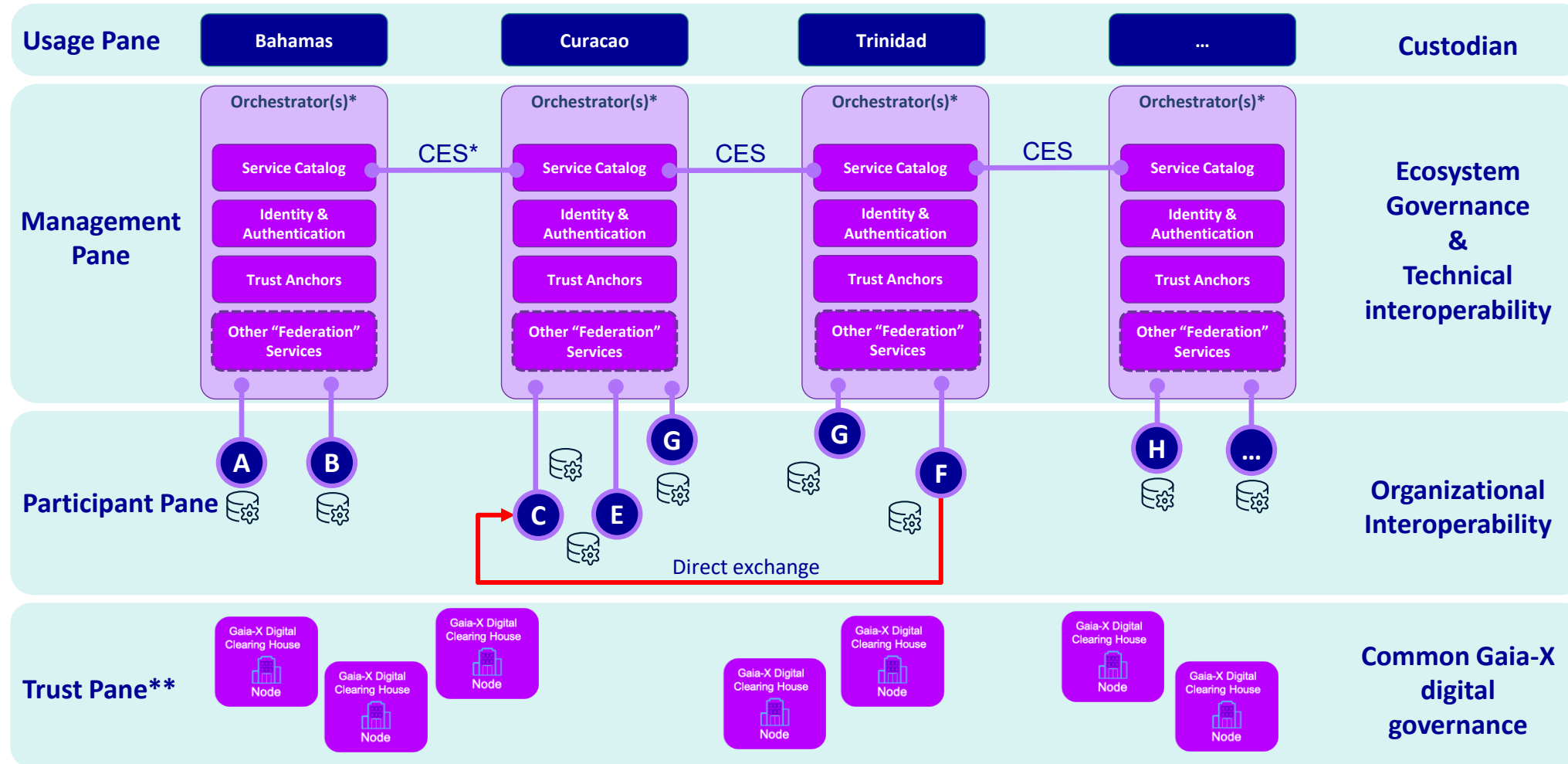


- ### Drivers
- Digital Public Infrastructure
 - Healthcare
 - Regulation
 - Safety
 - Sustainability



- ### Benefits
- Scalability
 - Resilience
 - Compliance
 - Interoperability
 - Growth

Trust Levels of an Ecosystem



*One or more orchestrators, depending on Ecosystem needs (e.g. regionalization or regulations, CES: Credential Event Service to share catalog items)

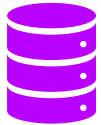
** GXDCHs are fully distributed and can be used independent from Ecosystem and orchestrators

Data Space recommendations



Trust between parties, or participants

- Establish a trust framework
- Establish transparency with full audit trail



Access to High Quality Data

- Avoid silos – silos start at your own company or region
- Establish policies along your value chain



Need for a trustworthy Ecosystem

- Put the data to use – siloed data does not “perform”
- Rely on a trustworthy standard to protect your investment and stay flexible



Regional legislation, global legislation

- Use a framework that enforces transparency on all relevant aspects
- Use a framework that is flexible to specific use case needs

Gaia-X Digital Clearinghouse




Production

Deployment

Pipeline




Lighthouse Data Spaces




Catena-X
Automotive Network

Automotive Supply Chain
Catena-X




COOPERANTS

Aeronautics, Space
Sector
Cooperants



dynamo

Infrastructure &
Technology
Dynamo



PONTUS-X

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

Qualified Projects



DIGITAL TER-X
2050

Construction
Digital TER-X
2050



FAIR Data Spaces


Research,
Infrastructure &
Technology
FAIR Data Spaces



RegenAg-X


Agriculture
RegenAg-X

Lighthouse Projects




ACCURATE

Manufacturing
Accurate




AgrospAI

Agriculture
AgrospAI




Boot-X

Infrastructure &
Technology
Boot-X




**DATASPACE
4HEALTH
LUXEMBOURG**

Health
Dataspac4Health




**Data4
Industry-X**

Manufacturing,
Industry 4.0
Data4Industry-X




EONA-X

Mobility, Transport &
Tourism
EONA-X




energy data-X

Energy
Energy data-X




**EuPro
Gigant**

Manufacturing,
Industry 4.0
EuProGigant




EuroDaT
The European Data Trust

Finance
EuroDaT




Flex4Res
Co-funded by the
European Union

Manufacturing
Flex4Res




gaia-x future mobility

Mobility & Transport
Gaia-X4 Future
Mobility




**HEALTH-X
dataLOFT**

Health
HEALTH-X dataLOFT




InfraDS

Cloud Services
Infrastructures Data
Space (InfraDS)




**Mobility
Data Space**

Mobility
Mobility Data Space
(MDS)




omega-X

Energy
Omega-X




PROMETHEUS-X

Education
PROMETHEUS-X




SCSN
smart
connected
supplier
network

Manufacturing
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](#)

Data Space Application and Gaia-X



Challenge

Trust between parties, or participants



Access to High Quality Data



Need for a trustworthy Ecosystem



Global legislation challenge



Gaia-X solution

Digital Clearing Houses

Gaia-X Architecture & Trust Framework

Gaia-X Ecosystem and interoperability

Labels & Data Exchange policies enforcement