gaia-x´

# #Gaia-X #Summit22

17-18 November 2022

delta**D4**7

SILVER

# THE FUTURE IS Gaia-X

WE ARE UP AND RUNNING



# **Inspirational Speech**



## Video Recording: https://www.youtube.com/watch?v=ovkl2jxdfzE&t=16s

Jean-Noël Barrot

Ministre délégué chargé de la Transition numérique et des Télécommunications, France

# State of the Union



## Francesco Bonfiglio

CEO Gaia-X



# **Gaia-X State of the Union**



The Future of European Digital Ecosystems Francesco Bonfiglio CEO Gaia-X

### Who is impacted by Digital Economy?





**All are impacted!** The new Digital Economy is pervasive and driven by **Data Spaces, the digitalization of the value chains,** in economical, social, political, and natural ecosystems.

### **Gaia-X Vs European Data Strategy**

### **ヽヽヽ***ヽヽ* ////// gaia-x

>1000 km

> 20 ms

<10

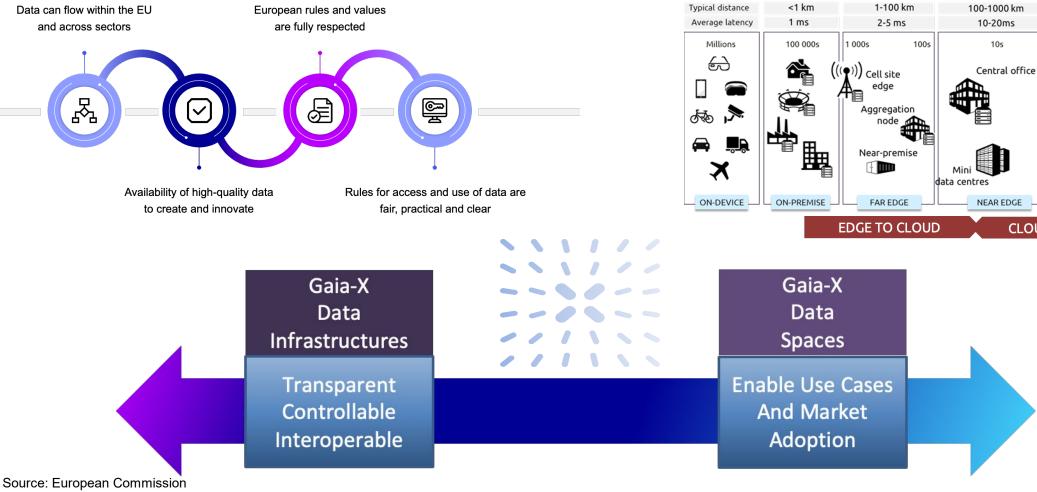
Central

data centre

CLOUD

### **Common EU Data Spaces**

### A Single Market For Data



### **Computing Continuum** Fabric for Data Spaces

In-country

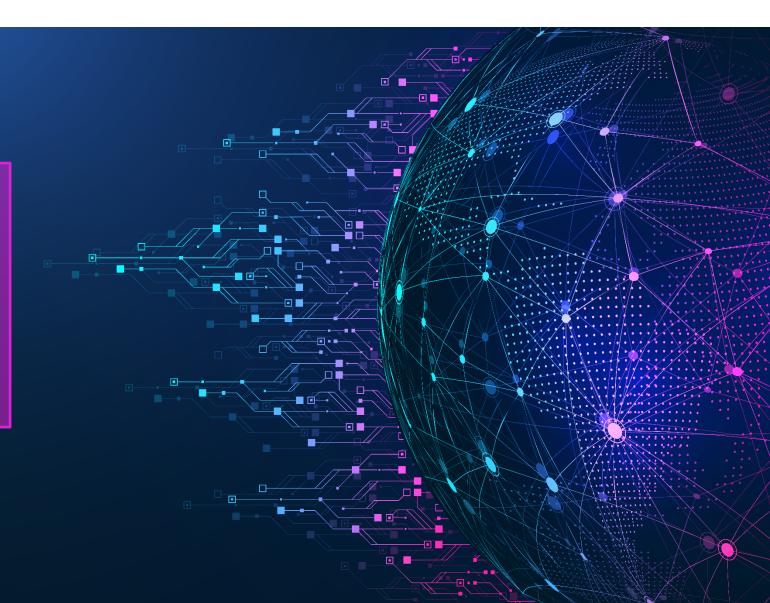
data centre

**CLOUD TO EDGE** 

10s



# Why Gaia-X?



### **EU Data Economy – Opportunities & Threats**







2024\*

SaaS Market 206.5 bn EUR by 2019-2021: +50%\*



**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 Adyen, Delivery Hero, Mail.ru, SAP, Scout24, Spotify, Wirecard, Yandex, Zalando **Cloud Provider Market Share Trend European Cloud Provider Share of Local Market** (laaS, PaaS, Hosted Private Cloud) (laaS, PaaS, Hosted Private Cloud) 400 European Cloud Provider Share Europe (9) amazon U.S. (20) • Other Asia (16) Microsoft 20% Google Africa (1) Q3 20 Q1 17 Q2 17 Q3 17 Q4 Q1 Q2 Q3 Q4 01 02 Q3 04 Q1 Q2 20 Q4 20 18 18 20 18 19 19 19 Source: Synergy Research Group Q1 17 Q2 Q3 17 17 Q4 17 Q2 18 Q3 Q4 18 Q1 Q2 19 19 Q3 Q4 Q1 Q2 Q1 18 18 19 19 20 20 n = number of platform companies listed on the stock market on 17 November 2019 | Source: Gartner (August 2020) Source: Synergy Research Group

15%

Q3

20

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

### EU Digital Market 2025

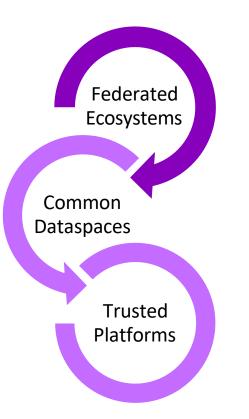
- EU CSP Providers Market Share = <10%
- EU TAM on Data Platforms = 8-10% EU GDP
- EU Economy Footprint Largely SME = >80%

### 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





# What is Gaia-X? Our story in short

### **Gaia-X Abstract**



**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? <u>Click here</u>. Interested in becoming a member of Gaia-X? <u>Click here</u>!

### Gaia-X Do's and Dont's

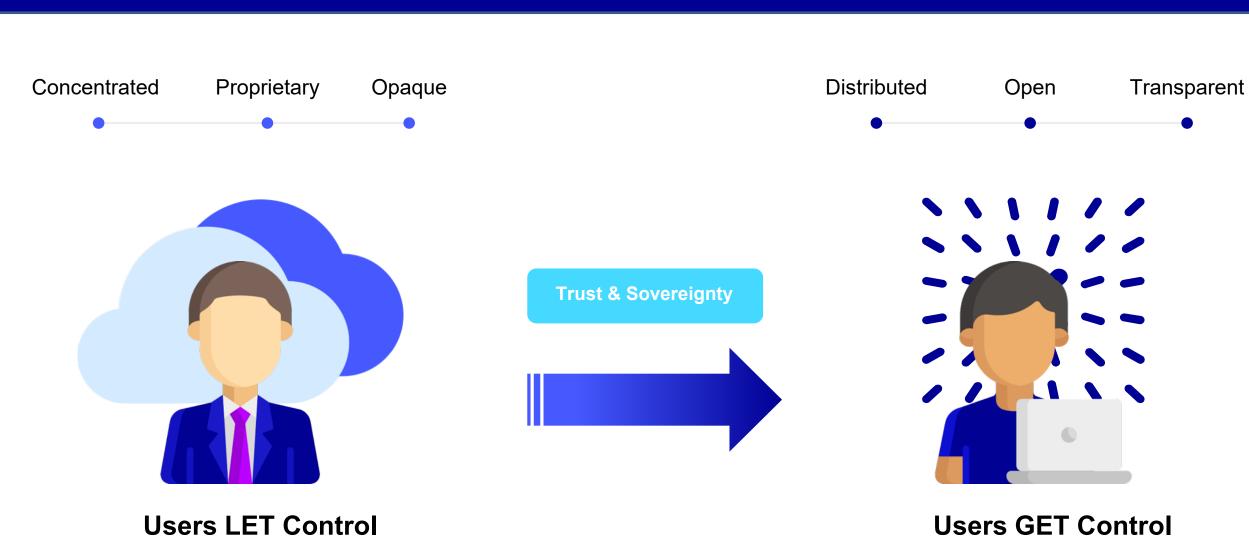


### What we are

### What we do



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 – Regain Control on Technology**

gaia-x

## **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.



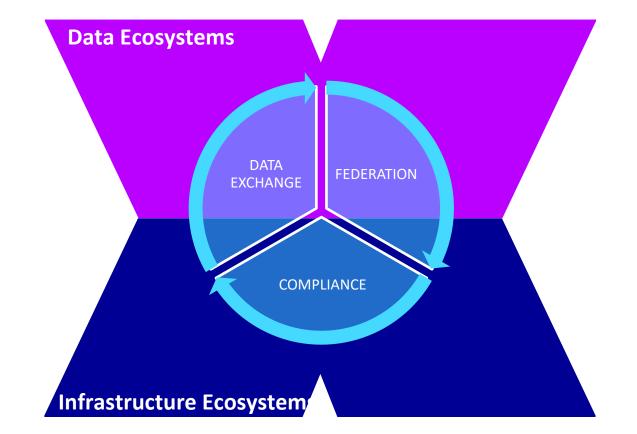
### **Gaia-X Compliance**

Decentralized services to enable objective and measurable trust.



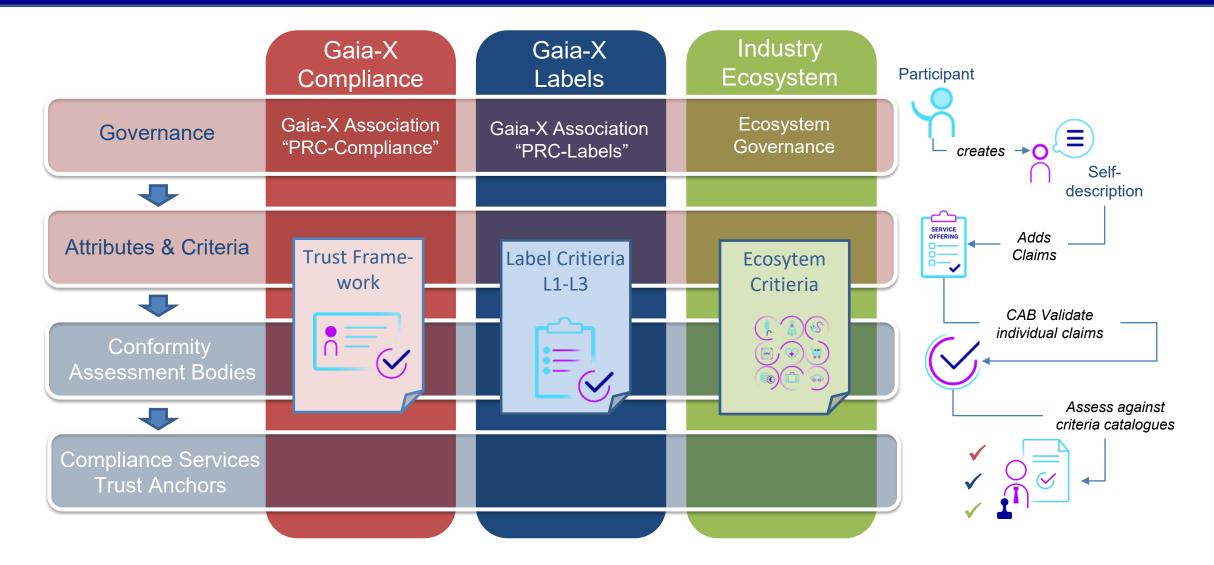
### Label framework

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



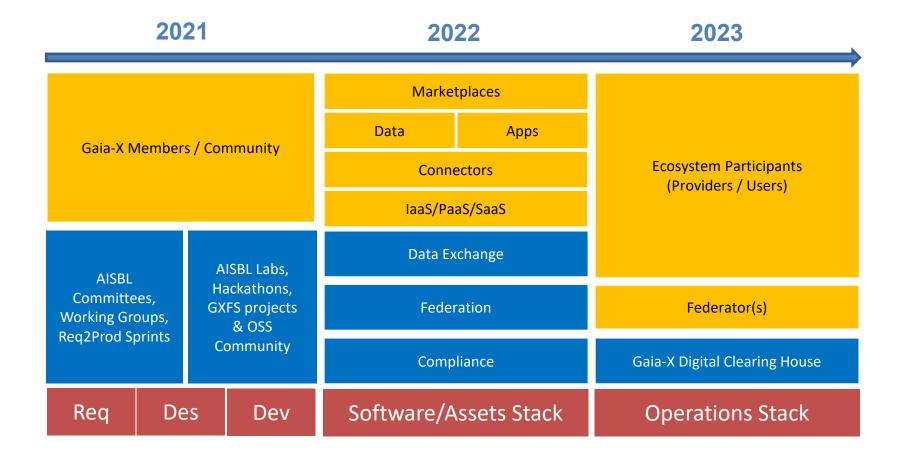
### **Gaia-X - Compliance Enable Trust**

gaia-×



### **Gaia-X Framework – From Vision 2 Operations**

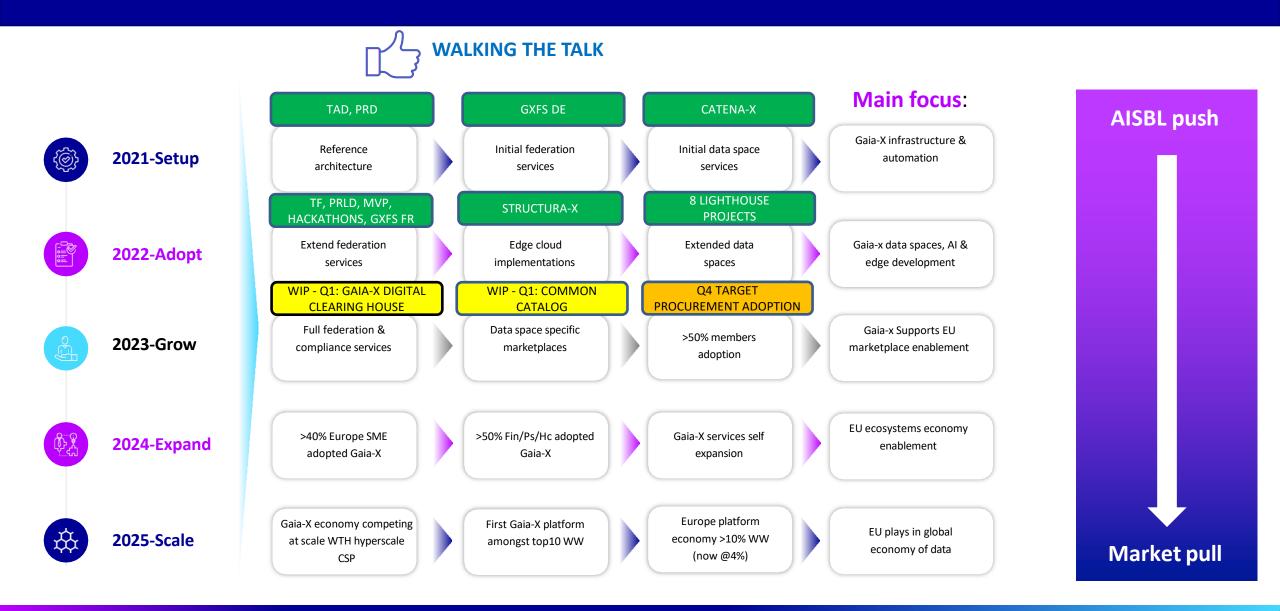
gaia-x





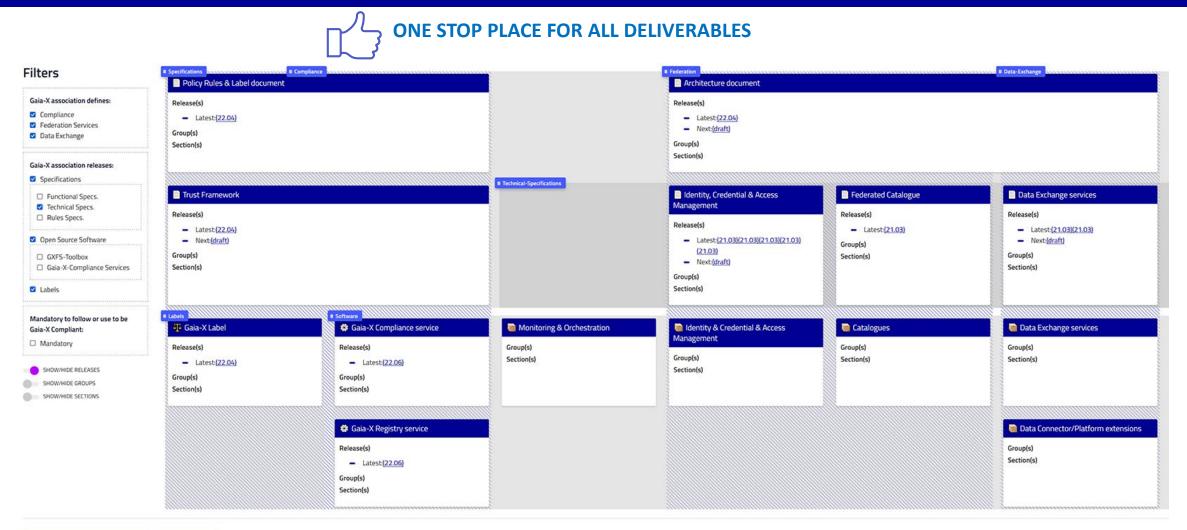
# Gaia-X State of Play 43 N00

### Gaia-X 5 Years Outlook 2022



### Gaia-X Framework 2022





Source available at https://gitab.com/gaia-x/technical-committee/framework. (Current version is e5410adc) Information about the Groups are directly extracted from the available mission documents

### Gaia-X Release Plan 2022

gaia-x

FROM SPECS TO CODE					
	2021	H1/2022	H2/2022	H1/2023	H2/2023
Gaia-X Specification Documents	Policy Rules 21.06		Policy Rules & Label 22.11		Policy Rules & Label 23
	Labelling Framework 21.11	Label Criteria 22.04	Labelling Criteria 22.11		Labelling Criteria 23.x
		Trust Framework 22.04	Trust Framework 22.11		Trust Framework 23.x
	Architecture 21.06	Architecture 22.04	Architecture 22.09		Architecture 23.x
(Association)	GXFS Spec v1		TechSpec IAM, DEX		TechSpec IAM, DEX, FE
Gaia-X OSS (Community)		РоС	OSS v1	OSS v2	
		Trust Framework		► Trust	Gaia-X Toolbox
		Compliance   Registry		TSA   NOT	
			Identity & Trust	Identity & Credentials	
			AA TSA NOT P+OCM	AA   PCM   OCM	New releases and
			Compliance	Conformity	components to be planned in
			CAM   OAW	CAM   OAW	
			Catalogues	Catalogues	Gaia-X Release Plannir and
			CCF	CCF	Gaia-X OSS communit
			Integration & Portal	Integration	processes
			POR   ORC	POR   ORC	incl.
			Data Exchange Services	Data Exchange Services	contributions from Poo
			DCS   DELS	DCS   DELS	Hackathons, Evaluations & Concepts
Gaia-X Releases "consistent deliverables" Gaia-X " v 0.x " Gaia-X " v 0.y " Gaia-X " v 1.0 "				Connector Plug-ins EDC   (Dawex)	

### Gaia-X Compliance Service Deployment 2022!

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### Gaia-X Lighthouse Projects 2022

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### Gaia-X Presence in 2022





### The Gaia-x network expands!

gaia-x

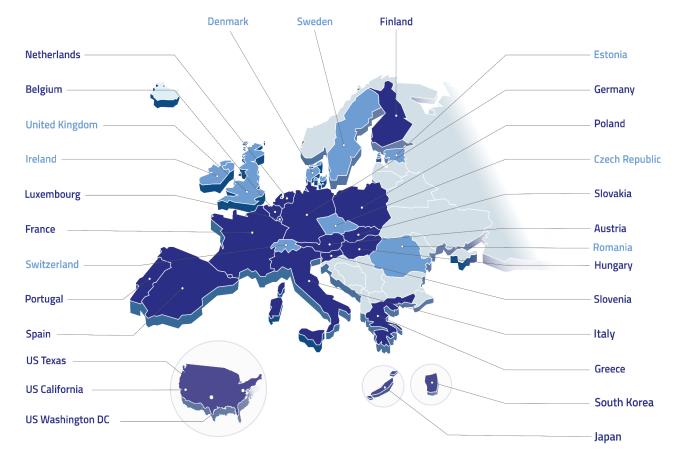


### **HUB Network Expansion**

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### **Encompassed by International Hubs** 15 EU, 5 Global





### Inauguration in 2022: Austria; Hungary; Japan; USA

### **GAIA-X INTERNATIONALISATION STRATEGY**

### **AISBL IS INTERNATIONAL BY STATUES**

NON-EU MEMBERS ARE WELCOME DG-COMP ASSEVERATION EU PRINCIPLES ARE PROTECTED **GAIA-X FRAMEWORK IS ADAPTABLE** SOVEREIGNTY IS A NEED FOR ALL EU AND NON-EU REGULATIONS CANNOT BE SUPERIMPOSED

THE TRUST FRAMEWORK IS ADAPTABLE BY DESIGN

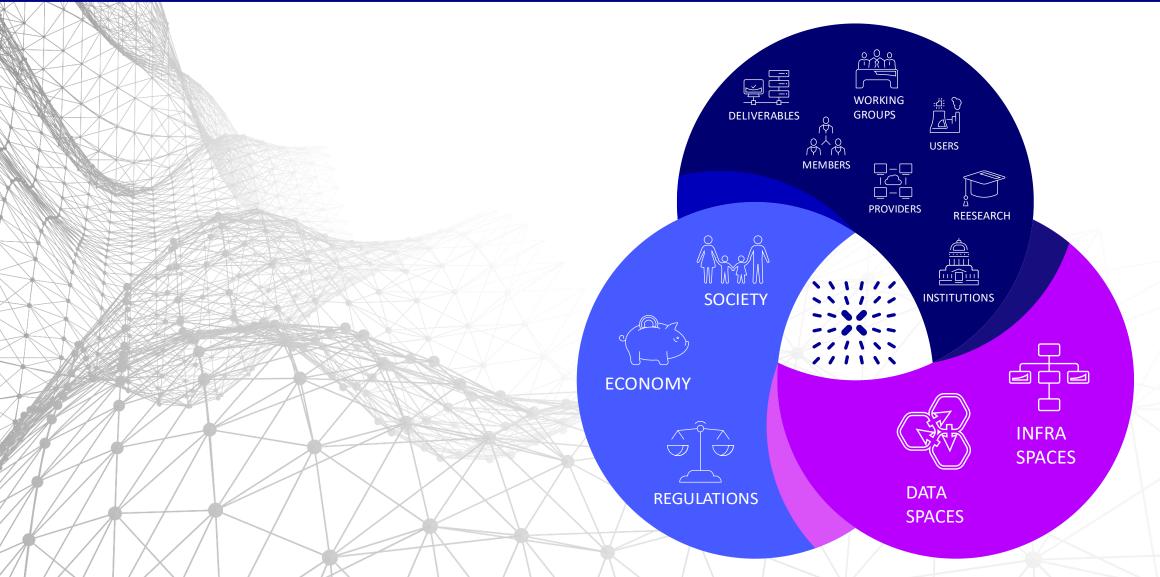
### **DIGITAL IS A GLOBAL BUSINESS**

GAIA-X WANTS EU TO WIN IN THE GLOBAL MARKET VALUECHAINS ARE BORDERLESS BY DEFINITION CONTROL VS PROTECTIONISM IS THE KEY EXTRA-EU HUBS ARE WELCOME

WHEN COMMITTED TO ADOPTION OF GAIA-X PRINCIPLES WHEN EXPAND GAIA-X ADOPTION AND MEMBERS THEY TESTIMONY THE GAIA-X GLOBAL VALUE

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





# Why should you join?

Check <u>here</u>





Shape

to a pioneering project that will establish digital sovereignty for Europe.

Contribute

how data will be stored, shared, and used in future.



Develop

new data-driven business models and data spaces.



Strengthen

ties to the expert communities in your industry.

How to join? Check <u>here</u>

### Follow us on:



### @gaiax\_aisbl

https://www.linkedin.com/company/gaia-x-aisbl



https://www.facebook.com/Gaia-X-Associationfor-Data-and-Cloud-111692924764099



https://www.youtube.com/channel/UCB5WMc2Ff rxKzfd7XIODoMw



# Thank you!

Gaia-X Association

# **Interactive Discussion**



### Coordinator: Francesco Bonfiglio, CEO Gaia-X

- Maximilian Ahrens, Chairman BoD Gaia-X and CTO T-System
- Boris Otto, BoD Member Gaia-X
- Hubert Tardieu, Independent BoD Member Gaia-X
- Jeroen Tas, BoD Member Gaia-X

# Gaia-X Demo Session Technology Showcase:



## Panelists:

- Roland Fadrany, COO Gaia-X
- Pierre Gronlier, CTO Gaia-X
- Lauresha Memeti, Technical Project Manager
- Benoit Tabutiaux, Technical Project Manager

### Introduction





Lauresha Memeti Technical Project Manager GXFS



Benoit Tabutiaux Technical Project Manager GXFS



Roland Fadrany Chief Operations Officer Gaia-X European Association for Data and Cloud AISBL



**Pierre Gronlier** Chief Technology Officer Gaia-X European Association for Data and Cloud AISBL



# Send us your questions via Sli.do Scan the QR code or join slido.com and use the number below Join at slido.com #1277 800

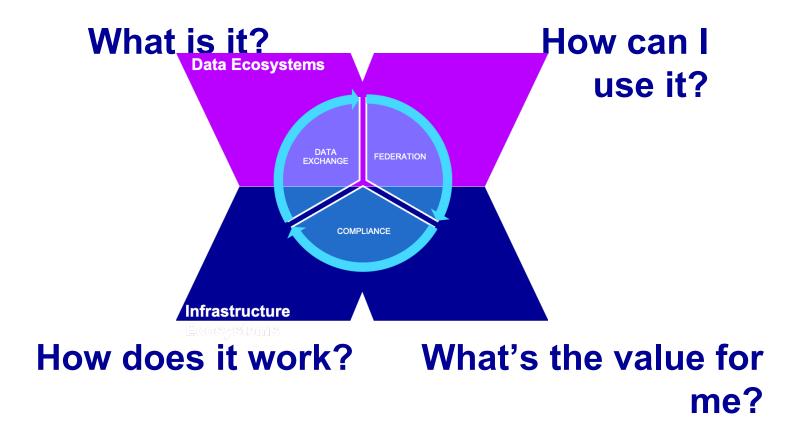


or



### Gaia-X Demo Summary







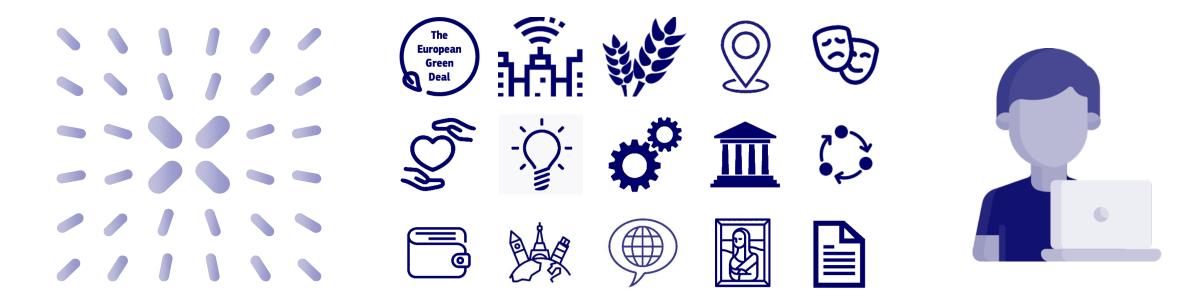


# Francesco Bonfiglio

Chief Executive Officer Gaia-X European Association for Data and Cloud AISBL

## **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!** 

## Moving from #DataGathering to #DataSpaces...

gaia-x

... Industry 4.0 Data Gathering

Multiple Interfaces Segregated Data Limited Accessibility Enabling Technology



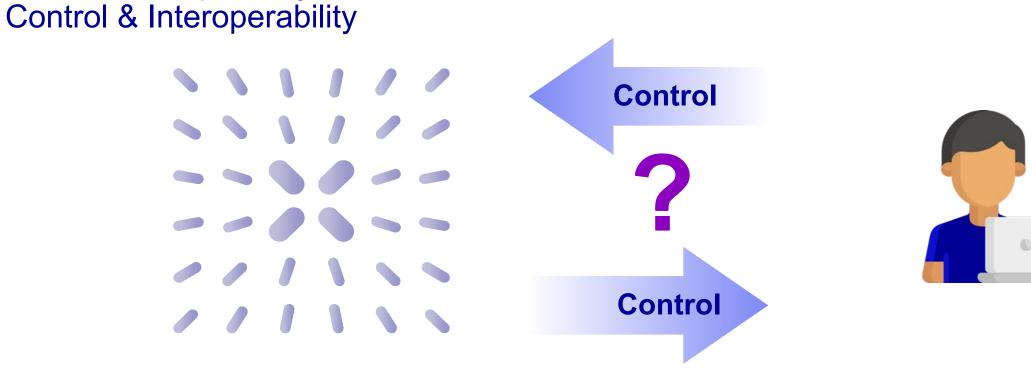
What's the difference?



Industry X ... Data Spaces



Federated Participants Seamless Data Full Accessibility Controllable Technology



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

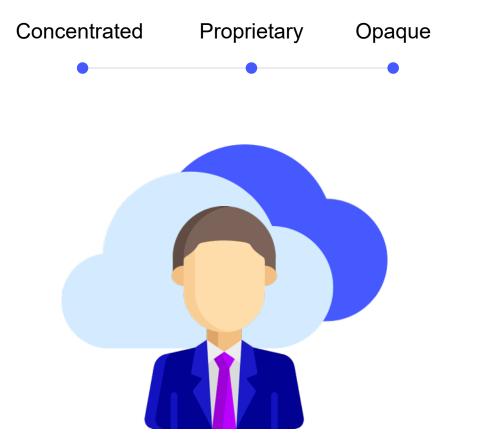
No!

Lack of Transparency,

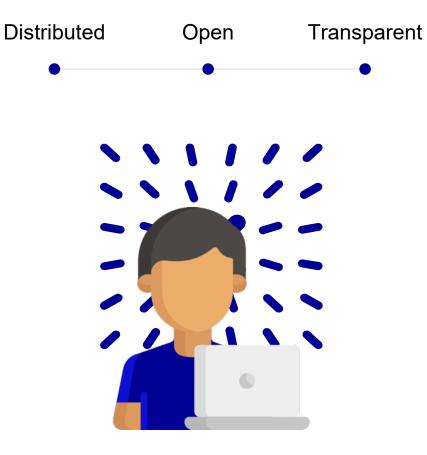


## Gaia-X – Regain Control on Technology





Trust & Sovereignty



**Users GET Control** 

**Users LET Control** 

### Are our Ecosystems ready?



### No! Disjoint Data & Infrastructures Ecosystems



Data

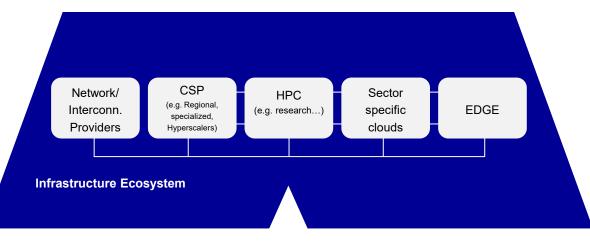
Untapped, fragmented, disjoint, no secure exchange mechanism





### infrastructures

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



## 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.



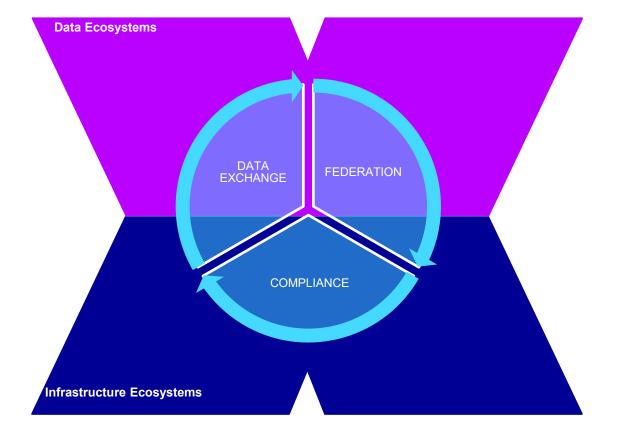
### Data Exchange

Anchored contract rules for access and data usage.



### **Gaia-X Compliance**

Decentralized services to enable objective and measurable trust.





### Gaia-X and ecosystem specific Labels to ease market

adoption through autonomy and self-determination.

### Your Business Scenario

. Time



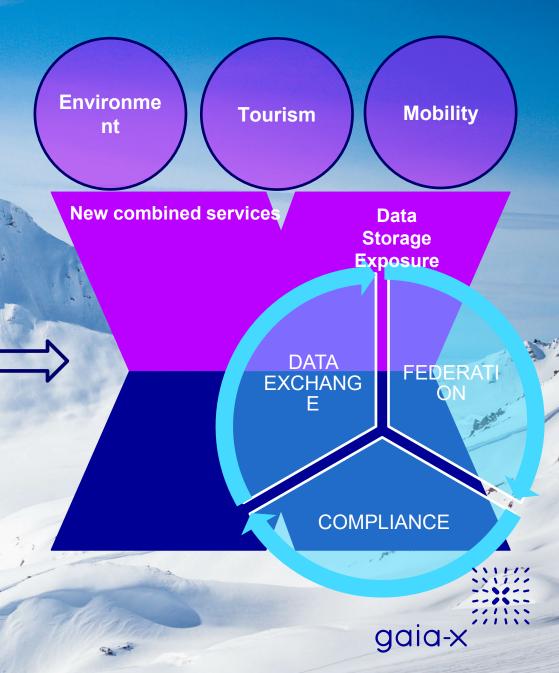
Durour Storage is a company that has been offering a data storage service for years. Currently it is trying to build a competitive advantage based on the solutions and concepts offered by Gaia-X.

> Gaia-X Digital Clearing House

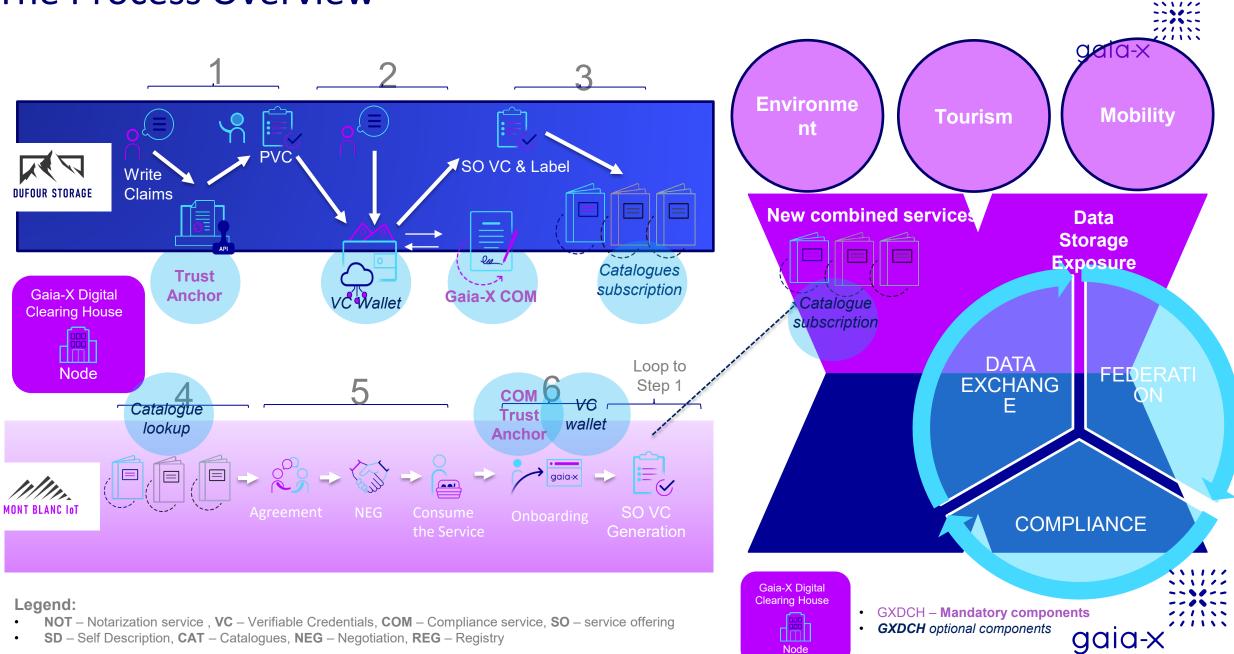
> > Node



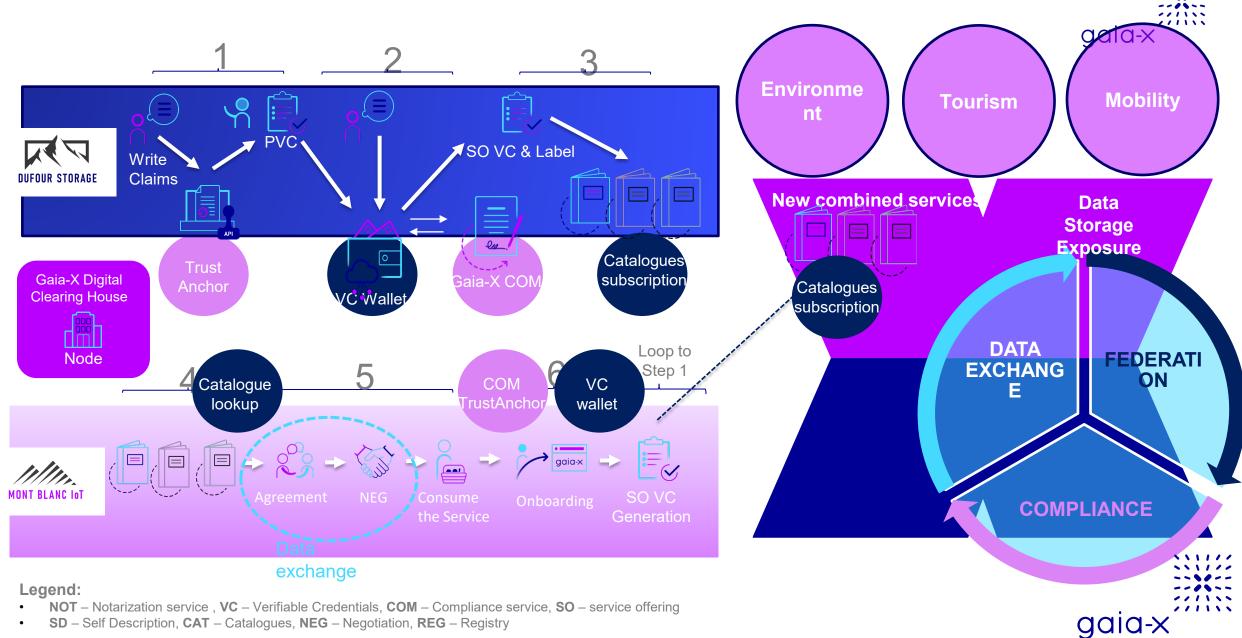
The Mont Blanc IoT company provides its services to the clients based on the IOT concept. Due to the dynamic development, the company is currently looking for safe and trusted data storage.

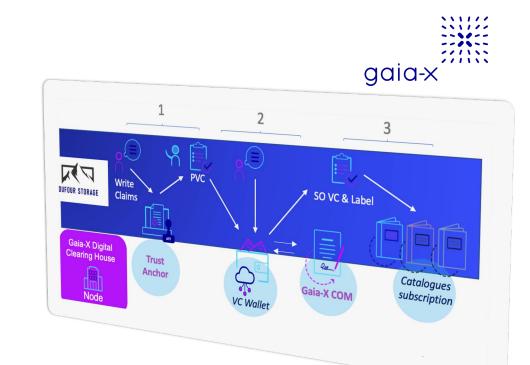


### The Process Overview



## Gaia-X Framework Mapping





Scenario steps 1 - 2 - 3



### Step 1

Describe Dufour Storage company as provider - Bob is the administrator of Dufour Storage. (Credentian Manager)

Step 2

Add data storage service offering to the federated catalogue - Bob want to expose a data storage service offering, running in a dedicated EU Country (Service Offering Credentials).

Step 3

Define Gaia-X Level 2 label to the service- Bob is an administrator of Dufour Storage. Bob already published to catalog and requests a "Gaia-X Level 2" label.

## Step 1 : Self-Descriptions & Compliance

Bob is the administrator of Dufour Storage and wants to join a federation as a service provider.





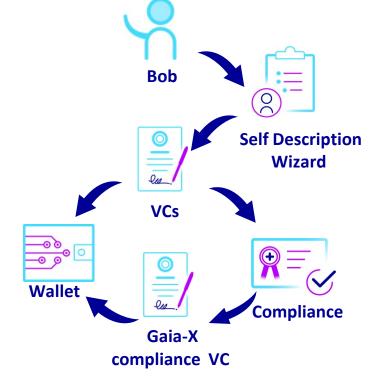
### Key benefits for Bob and his customers from this step

+ Interoperability : common schema to describe participants and service offerings.

+ **Transparency** : claims are signed providing identification and content integrity verification

+ **Trust** : Gaia-X Trust Framework define compliance rules and allow a chain of Trust

"Dufour Storage information can be requested and verified at any time. Any customer will have a proof that Dufour Storage is Dufour Storage"



Step 1





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## Step 1: Self Description & Compliance



Bob wants to expose a data storage service offering, running in a dedicated EU Country.



### Key benefits for Bob and its customers from this step

+ Interoperability : common schema to describe participants and service offerings

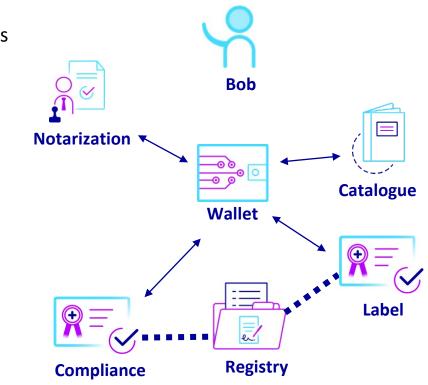
Step 2 & 3: Describe and manage Service Offerings

+ **Transparency**: claims are signed providing identification and content integrity verification

+ **Trust:** Trust Framework define compliance rules and name Trust Anchors

+ Completeness: associate labels and certificates to the service offering

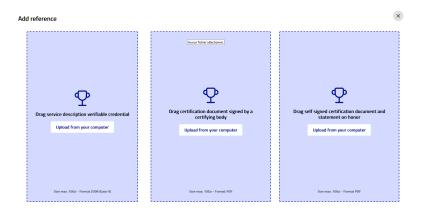
"Dufour Storage Service information can be requested and verified at any time including proof and trust for additional certifications."





## Step 2 & 3: Describe and manage Service Offerings





Certification Reference Notarization Service

Climate Neutrality

Data Portin

Data Protectio

ntractual governance	
Criterion 1: The provider shall offer the ability to establish a legally binding act. This legally binding act shall documented	🔿 Yes 💿 No
Criterion 2: The provider shall have an option for each legally binding act to be governed by EU/EEA/Member State law	🔿 Yes 💿 No
Criterion 3: The provider shall clearly identify for which parties the legal act is binding	🔿 Yes 🗿 No
Criterion 4: The provider shall ensure that the legally binding act covers the entire provision of the service offering	🔿 Yes 🗿 No
ansparency	
insparency Criterion 5: The provider shall ensure there are specific provisions regarding service interruptions and business continuity (e.g., by means of a service level agreement), provider's bahrupty or any other reason by which the provider may cease to exist in law	🔿 Yes 🖲 No
Criterion 5: The provider shall ensure there are specific provisions regarding service interruptions and business continuity (e.g., by means of a service level agreement), provider's	<ul> <li>○ Yes ● No</li> <li>○ Yes ● No</li> </ul>
Criterion 5: The provider shall ensure there are specific provisions regarding service interruptions and business continuity (e.g., by means of a service level agreement), provider's bankrouptcy or any other reason by which the provider may cause to exist in law	
Criterion 5: The provider shall ensure there are specific provisions regarding service interruptions and business continuity (e.g., by means of a service level agreement), provider's bankruptcy or any other reason by which the provider may coase to exist in law Criterion 6: The provider shall ensure there are provisions governing the rights of the parties to use the service and any data therein	🔿 Yes 🖲 No
Criterion 5: The provider shall ensure there are specific provisions regarding sorvice interruptions and husiness: continuity (e.g., by means of a service level agreement), provider's landmright or any other reason by which the provider may cause to each in law Criterion 6: The provider shall ensure there are provisions governing the rights of the parties to use the service and any data therein Criterion 7: The provider shall ensure there are provisions governing changes, regardless of there ind	○ Yes ● No ○ Yes ● No
Criterion 5: The provider shall ensure there are specific provisions regarding service interruptions and business continuity (e.g., by means of a service level agreement), provider's handrugity or any other reason by which the provider may cause to exist in law. Criterion 6: The provider shall ensure there are provisions governing the rights of the parties to use the survice and any data therein Criterion 7: The provider shall ensure there are provisions governing changes, regardless of their kind. Criterion 8: The provider shall ensure there are provisions governing changes, regardless of their kind.	<ul> <li>Yes ● No</li> <li>Yes ● No</li> <li>Yes ● No</li> <li>Yes ● No</li> </ul>
Criterion 5: The provider shall ensure there are specific provisions regarding service interruptions and business continuity (e.g., by means of a service level agreement), provider's bushrupty or any other reason by which the provider may cause to exist in law Criterion 6: The provider shall ensure there are provisions governing the rights of the parties to use the service and any data therein Criterion 7: The provider shall ensure there are provisions governing changes, regardings of their kind Criterion 8: The provider shall ensure there are provisions governing changes, regardings complete or any other intellectual property rights Criterion 9: The provider shall ensure the general location of physicals Resources at use have new.	<ul> <li>Yes ● No</li> </ul>
barlroutery or any other reason by which the provider may cause to exist in law Criterion 6: The provider shall ensure there are provisions governing the rights of the parties to use the service and any data therein Criterion 8: The provider shall ensure there are provisions governing changes, regarding copyright or any other intellectual property rights Criterion 8: The provider shall ensure there are provisions governing expects regarding copyright or any other intellectual property rights Criterion 9: The provider shall ensure there in provide the state control of physical Resources at the ana to level. Criterion 10: The provider shall ensure the information advoct subcontractors and related data localisation will be communicated	<ul> <li>Yes ● No</li> </ul>

### Self-Assessment Questionnaire

Level 2

4

### **Compliance Reference Catalogue**

**Label Simulation** 

Document- O name.pdf Steps 2 – 3





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## **Step 2: Describe and manage Service Offering**

### Scenario steps 4 – 5 – 6

# MONT BLANC IOT



Step 4

Look up public Gaia-X catalogue to find a service in the catalogue .... as Dufour Storage doesn't require identification for their basic services.

Step 5

Mont Blanc IoT company applies as a consumer to a Federation and issues principal VC for Alice. Mary is the administrator/onboarding officer of Mont Blanc company and want to onboard Mont Blanc as a service consumer within a federation, then create a principal VC for Alice, a BI Analyst of Mont Blanc.

### Step 6

Consume a service Alice is a BI analyst from Mont Blanc and wants to consume a data storage service to push files / service deployment

### **Step 4: Federated Catalogue**

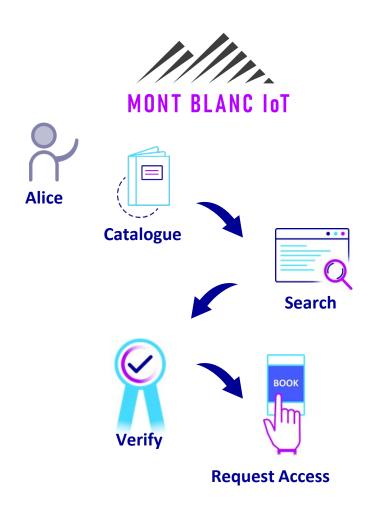
Alice is a BI analyst from Mont Blanc Company and want to search data storage service with "Gaia-X level 2" labels, in a dedicated EU country

## + Interoperability : Explore a catalogue where all providers share their list of services on the same format.

+ **Trust**: Display the chain of trust for service offering, explore the list of Trust Anchors and Certificates.

+ **Transparency** Explore, compare and filter through all dimensions (certifications, label, country, location of the service, etc...)

"All the services respects the same format. Proofs can be displayed. Alice has everything in her hands to pick up the best provider that fits her requirements





Step 4





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### **Step 4: Federated Catalogue**



## Gaia-X Federated Catalogues – introduction



	Catalogue ▼ <u>Lo</u> g
ABC Federation Catalogue *	Q_France
27 results   🛓 Download the results of all services	■ Keyword ▼ Filter
Al Apps * Level 1	
Al Apps is a service offered by OVHCLOUD	See more
● ISO 27001 ● ISO 27017 ● ISO 27701 ● HDS-FR ● ISO 27018	
Dedicated Servers 🖈 Level 1	
Compute, Logs, Bare Metal,  Authentication	
Dedicated Servers is a service offered by OVHCLOUD	See more
● ISO 27001 ● ISO 27017 ● ISO 27701 ● CISPE Data Protection CoC ● HDS-FR ● ISO 27018 ● SAP : cloud and infrastructure	
Cloud Archive * Level 1	
Cloud Archive is a service offered by OVHCLOUD	See more
● ISO 27001 ● ISO 27017 ● ISO 27701 ● HDS-FR ● ISO 27018	

# Step 5:Mont Blanc IoT company applies as a consumer to the Federation and issues principal VC for Alice



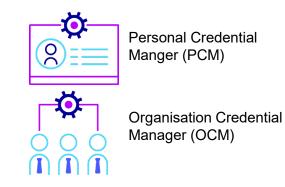
**Mont Blanc IoT company applies as a consumer to the Federation and issues Principal VC for Alice**. Mary is the administrator/onboarding officer of **Mont Blanc IoT company** and want to onboard Mont Blanc as a service consumer within the federation , then create a principal VC for Alice, as Bl Analyst of Mont Blanc.

### **1. Business Value:**

Decentralized Identity, Trust, Business & User remains in full control of their Identity

### **2.** Functional blocks in play:

Organization Credential Manager, Personal Credential Manager





## For managing credentials in Gaia-X ecosystem we are using components out the Gaia-X Federation Services toolbox:

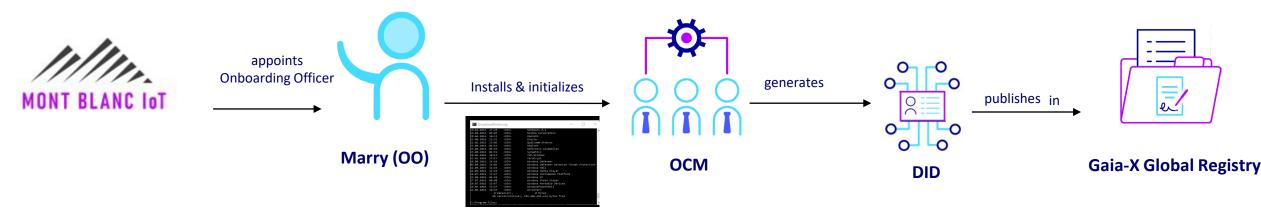
Cloud SSI Wallet : storing , presenting and issuing Verifiable Credentials Personal SSI Wallet App: storing and presenting Verifiable Credentials





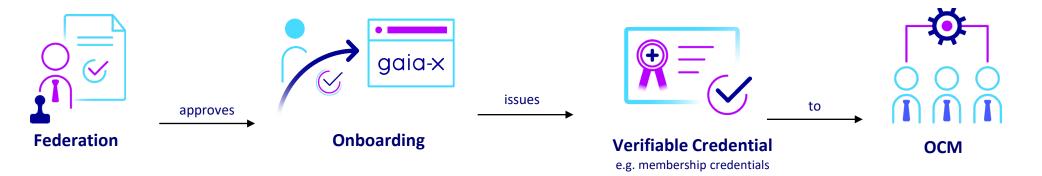


- Mont Blanc IoT appoints Mary as their Onboarding Officer (OO)
  - Onboarding Officer is responsible for setting up the Organization Credential Manager (OCM)
- Mary installs OCM component in Mont Blanc IoT's IT environment
- Mary initializes OCM and publishes the DID in Gaia-X global registry (Trust Framework)



- Mary Start Onboarding proces through the Federation Portal
- If the Federation approves the onboarding, a respective Verifiable Credential is created using the Notarization Service. Verifiable Credential e.g.
   Federation/Membership Credentials
- Mary receives the Verifiable Credential (Federation Credentials) in the OCM wallet on behalf of Mont Blanc IoT



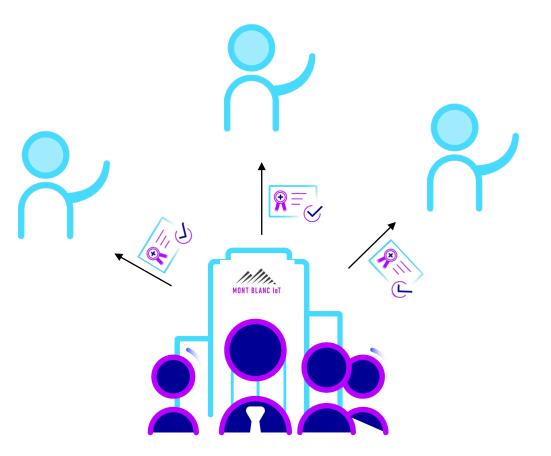


### Mont Blanc IoT



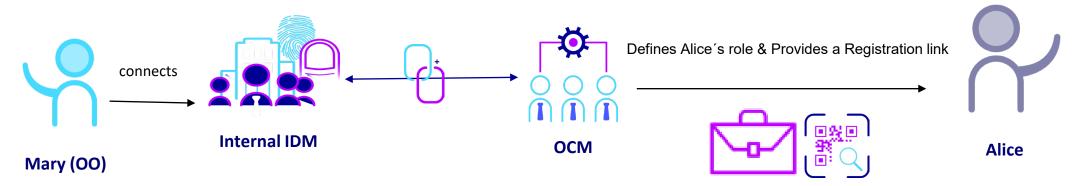
Mont Blanc IoT has now the DID with VC (Federation Credentials) and can start issue credentials to its employees

▶ 0:	{}	
1:	"https://w3id.org/security/suites/ed25519-2020/v1"	
cred:id:	"vc.gaia-x.eu//membership/pierre.gronlier@gaia-x.eu"	
cred:type:		
0:	"VerifiableCredential"	
1:	"ParticipantCredential"	
cred:issuer:	"did:web:vc.gaia-x.eu:issuer"	
cred:issuanceDate:	"2022-01-17T22:42:34Z"	
<pre>cred:expirationDate:</pre>	"2022-01-20T22:42:34Z"	
<pre>cred:credentialSubject:</pre>		
▶ @context:	{···}}	
@type:	"schema:ProgramMembership"	
<pre>schema:id:</pre>	"mailto:pierre.gronlier@gaia-x.eu"	
<pre>schema:programName:</pre>	"Gaia-X AISBL"	
proof:		
▼ 0:		
type:	"JsonWebKey2020"	
	"JsonWebKey2020" "2022-01-17T22:42:34Z"	
type:		
type: created:	"2022-01-17T22:42:34Z"	
type: created: ▶ jws:	"2022-01-17T22:42:34Z" "eyJhbGci0iJSUzIINiJ9wX2aThaSO6QtmNk0DoOwUOqBA"	
type: created: ▶ jws: proofPurpose:	"2022-01-17T22:42:34Z" "eyJhbGci0iJSUzIINiJ9wX2aThaSO6QtmNkODoOwUOqBA" "assertionMethod"	
<pre>type: created: jws: proofPurpose: verificationMethod:</pre>	"2022-01-17T22:42:34Z" "eyJhbGci0iJSUZIINiJ9wX2aThaSO6QtmNk0DoOwUOqBA" "assertionMethod"	
<pre>type: created: } jws: proofPurpose: verificationMethod: v 1:</pre>	"2022-01-17T22:42:34Z" "eyJhbGciOiJSUzIINiJ9wX2aThaSO6QtmNkODoOwUOqBA" "assertionMethod" "did:web:vc.gaia-x.eu:issuer#JsonWebKey2020-RSA"	
<pre>type: created: } jws: proofPurpose: verificationMethod: * 1: type:</pre>	"2022-01-17T22:42:34Z" "eyJhbGci0iJSUZIINiJ9wX2aThaSO6QtmNkODoOwUOqBA" "assertionMethod" "did:web:vc.gaia-x.eu:issuer#JsonWebKey2020-RSA" "Ed25519Signature2020"	
<pre>type: created: jws: proofPurpose: verificationMethod: ve: type: created:</pre>	"2022-01-17T22:42:34Z" "eyJhbGci0iJSUZIINiJ9wX2aThaSO6QtmNkODoOwUOqBA" "assertionMethod" "did:web:vc.gaia-x.eu:issuer#JsonWebKey2020-RSA" "Ed25519Signature2020" "2022-01-17T22:42:34Z"	



Alice must first be registered in Mont Blanc IoT's internal Identity Management System (IDM) (example: Active Directory for the employees inside the company)

- Mary connects internal IDM with Mont Blanc IoT OCM
- Mary defines Alice's role and the information is stored in the OCM of Mont Blanc IoT
- Mary Provides a Registration Link to Alice (to the employee)
- OCM generates the QR code to the registration link



Shaping the data infrastructure of the future together – secure, open and transparent

**GAIA-X Federation Services Employee Credential** 

Fill in the form and register to get your Employee Credential



<b></b>	7350edf450
Federation Name*	
My Company	
Employee ID*	
b79492c9-a1dc-4bd8-b71c-71	1b96b5c0b95
Memeti Employee First Name*	
Lauresha	
Employee Email*	
lauresha_15@hotmail.com	
Employee Claims*	

Shaping the data infrastructure of the future together – secure, open and transparent

#### **GAIA-X Federation Services Employee Credential**

Fill in the form and register to get your Employee Credential

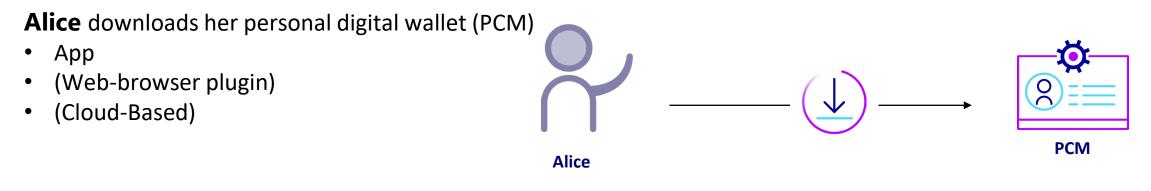




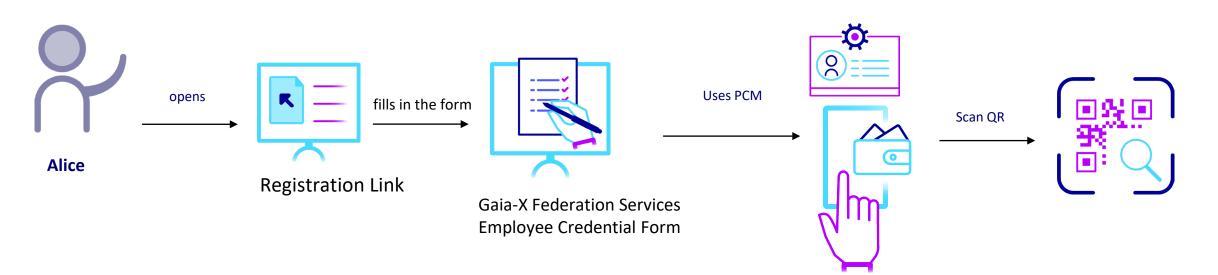
Please scan the QR-Code with you wallet.

2022 GAIA-X Federation Services

Imprint Privacy Policy Cookie Settings Terms & Conditions Contact Help



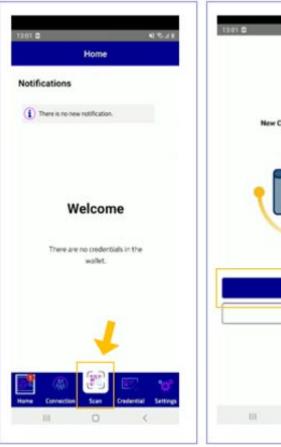
## Alice logs in to the registration link with the IDM Account



221111 ----- 03--++1XXX ----gaia-x

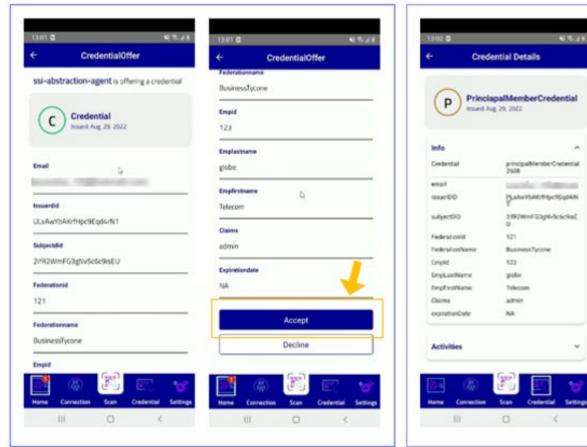
~

v



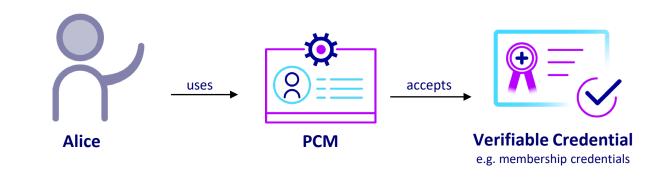








- Receives the credentials
- Connection established
- Accepts credentials
- Credentials are generated and imported to PCM
- VCs stored in Alice's personal digital wallet

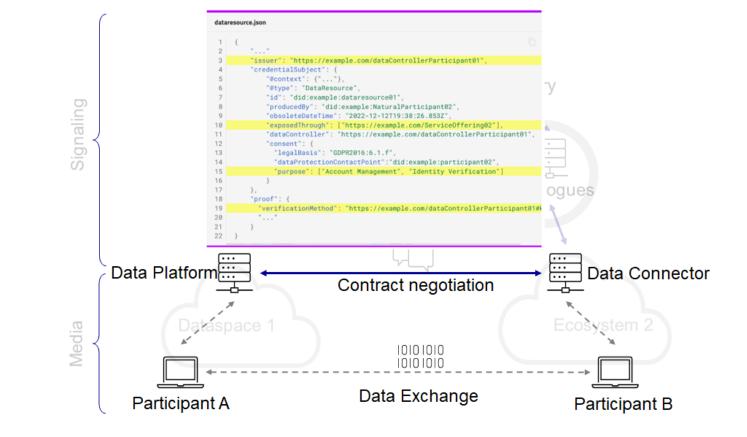


Mont Blanc IoT is part of the Federation and Alice can now act on behalf of the Mont Blanc IoT as a BI Analyst of Mont Blanc in the respective Federation

## Negotiation / contracting part







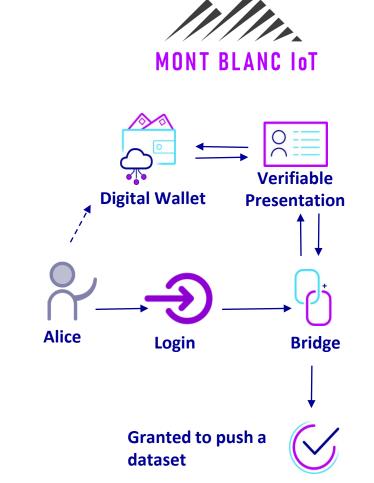
### Step 6: Consume a Service

Alice is a BI analyst from Mont Blanc IoT and wants to consume a data storage service to push a dataset

+ **Privacy** Using Self-Sovereign Identities (SSI) mechanism, Alice choose which information is shared with the provider and which certificate provide the right information.

+ Automation Using machine-readable semantics for contracts, usage control can be easily implemented \**in the future*\*.

+ **Trust** Attributes from Self-Description Credentials are used and can be controlled through the lifetime of the service.







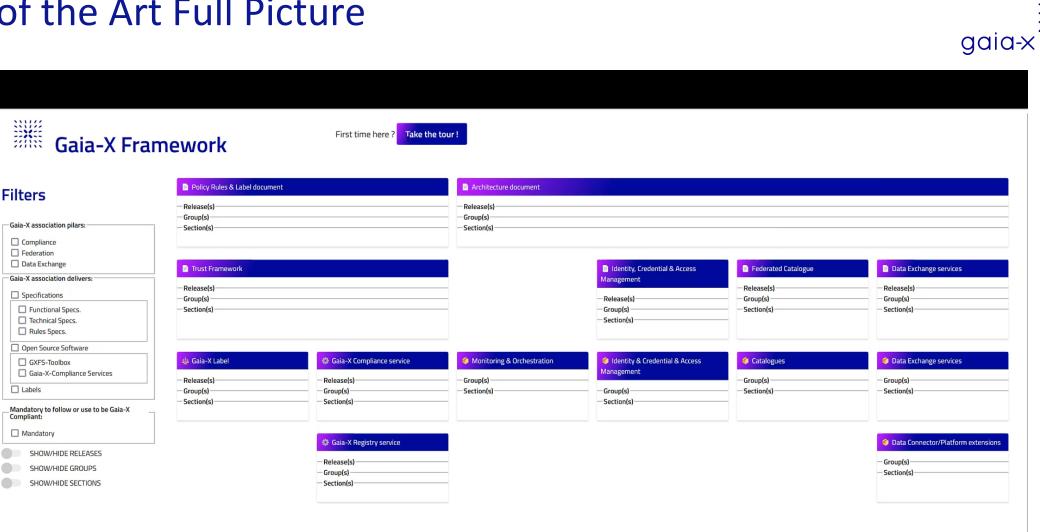


gaia-x 3<sup>rd</sup> Summit

## **Step 6: Consume a service**



### State of the Art Full Picture



NNN177 >>>////

----- 0 ----- 1 X X X 111111

#### Generate direct link to this view.

Filters

Compliance Federation

Labels

Compliant: Mandatory

Source available at https://gitlab.com/gaia-x/technical-committee/framework. (Current version is 02d17e1f)







## Thank you **GXFS Teams** for the contribution!



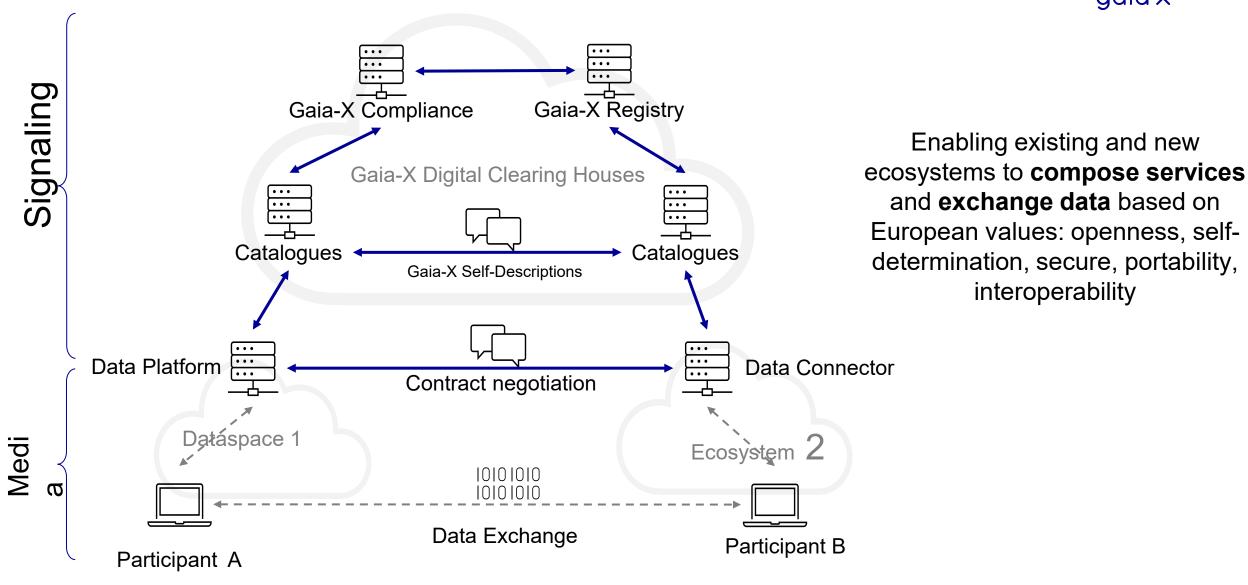
## Send us your questions via Sli.do Scan the QR code or join slido.com and use the number below Join at slido.com #1277 800





#gaiax @ticapix

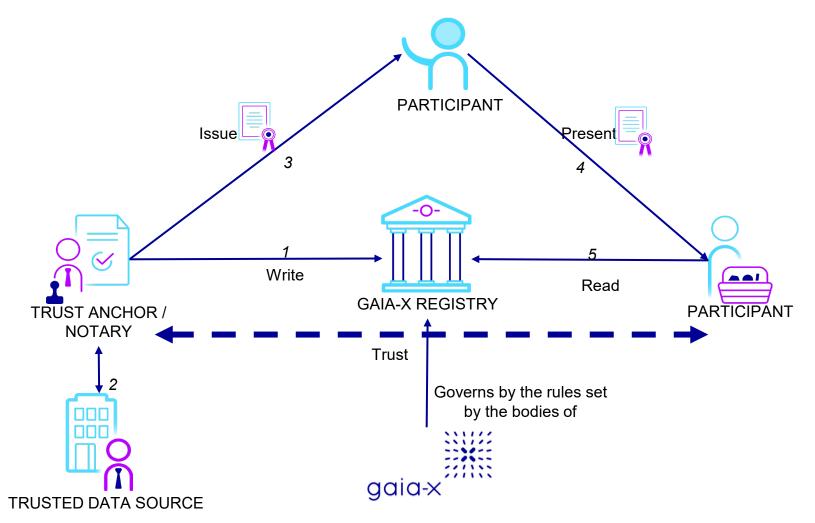


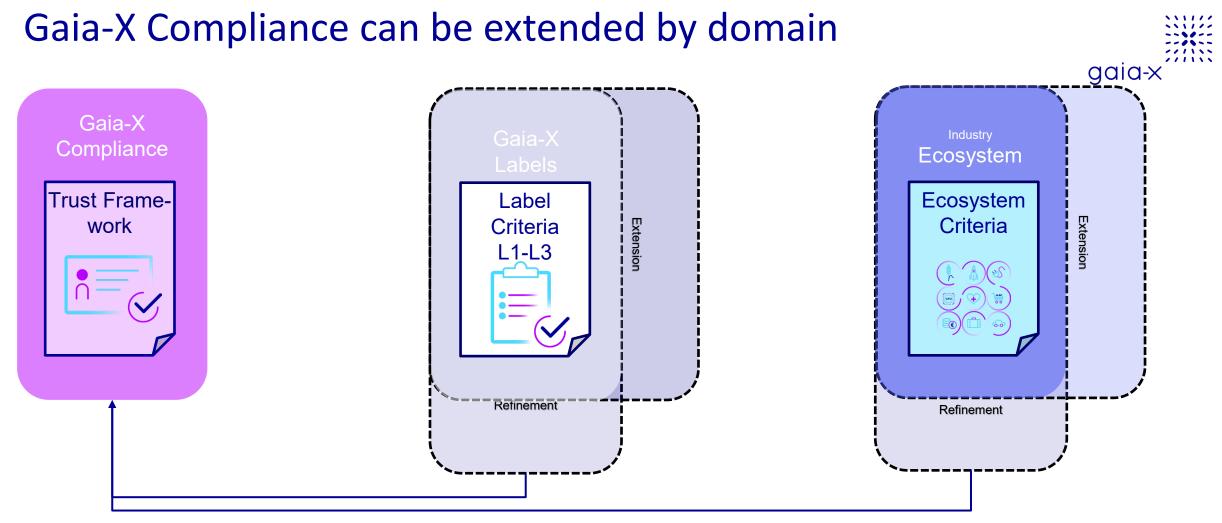


(this is an illustration and it doesn't represent the full extent of the Gaia-X architecture.)

### Trust model

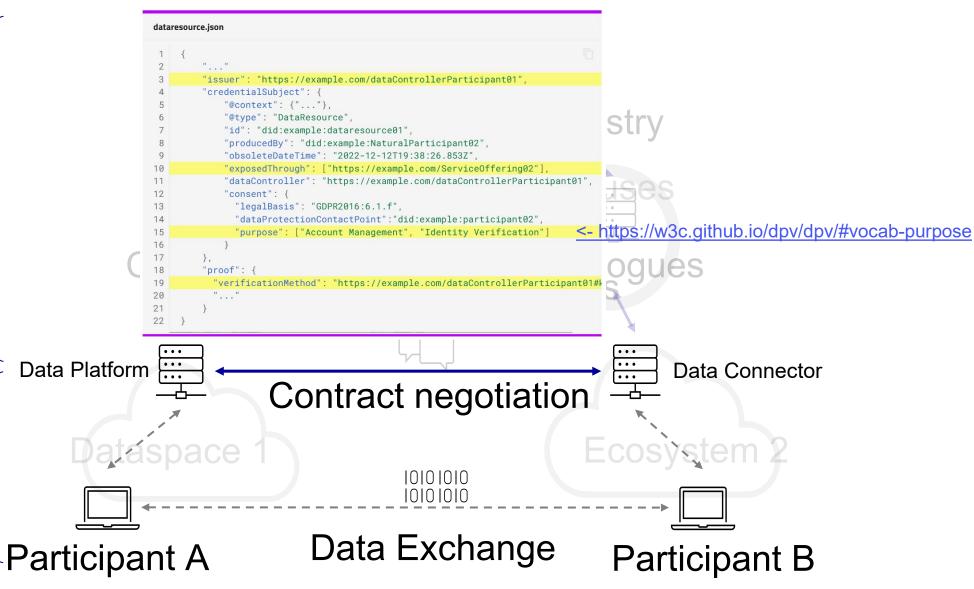






A rule is:

- attribute name
- cardinality
- list of values format
- list of valid issuers



(this is an illustration and it doesn't represent the full extent of the Gaia-X architecture.)

Medi

#### Under the hood 1/2

unsi	unsigned_claims.json					
1	r					
2	L	(				
2		٦	"@context": {""},			
4			"@type": "ServiceOffering",			
5			"id": "did:example:service01",			
6			"name": "Great Service",			
7			<pre>"providedBy": {"@id": "did:example:participant01"},</pre>			
8			"policy": [],			
9			"dataAccountExport": {"@id": "https://example.com/service01/dataex			
10			"termsAndConditions": ["https://"],			
11			"aggregationOf": [{""}, {""}]			
12		},				
13		{				
14			"@context": {""},			
15			"@type": "LegalParticipant",			
16			"id": "did:example:participant01",			
17			"sameAs": ["http://example.com/notary/123ABC"],			
18			"headquartersAddress": {			
19			"countryCode": "ES-IB"			
20			},			
21			"legalAddress": {			
22			"countryCode": "ES-MD"			
23			}			
24		}	·			
25		{				
26			"@context": {""},			
27			"@type": "DataAccountExport",			
28			"id": "https://example.com/service01/dataexport01",			
29			"requestType": "API",			
30			"accessType": "digital",			
31			"formatType": "application/octet-stream"			
32		1	Tormacrype . apprication/occer-scream			
32	1	}				
33	1					

. . .

https://www.w3.org/TR/vc-data-model/ https://www.w3.org/TR/did-core/ https://www.w3.org/TR/json-Id/ https://www.itu.int/rec/T-REC-X.509 RFC7515 (JSON Web Signature) RFC7517 (JSON Web Key) RFC7797 (JWS Unencoded Payload Option EU Regulation 910/2014 (eiDAS) CA/Browser Forum

#### vc myclaims.json

1	4
2	"@context": {""},
3	"id": "http://example.com/credential/1234",
4	"type": ["VerifiableCredential"],
5	"issuer": "did:example:issuer01",
6	"credentialSubject": [
7	$\{"\ldots"\}, \{"\ldots"\}, \{"\ldots"\}$
8	],
9	"proof": {
10	"type": "JsonWebSignature2020",
11	"created": "2022-02-25T14:58:43Z",
12	"verificationMethod": "did:example:issuer01#key",
13	"proofPurpose": "assertionMethod",
14	"jws": "PMQDXnjEdQcXr4uNMVJcMb"
15	}
16	}
	<b>↓</b>
	•

#### DID document

1	{
2	"@context": {""},
3	"@id": "did:example:issuer01",
4	
5	"verificationMethod": [
6	{
7	"@context": "https://w3id.org/security/suites/jws-2020/v1",
8	"id": "did:example:issuer01#key",
9	<pre>"controller": "did:example:issuer01",</pre>
10	"type": "JsonWebKey2020",
11	"publicKeyJwk": {
12	"crv": "Ed25519",
13	"x": "ecBxqTm7YKx9lja3U-EzxMGLNz4xzBTm_iki3LUA-zc",
14	"kty": "OKP",
15	"x5u": "https://example.com/issuer01.pem"
16	}
17	}
18	]
19	}

#### The Gaia-X Ontology.

#### "@context": {"..."}, "id": "http://example.com/notary/ABC", "type": ["VerifiableCredential"], "issuer": "did:example:notary01", "credentialSubject": { "registrationNumber": "123ABC" "proof": { "type": "JsonWebSignature20 20", "created": "2022-02-25T14:58:43Z" "verificationMethod": "did:example:notary01#key" "proofPurpose": "assertionMethod", "jws": "z2iiwEyy...g3WYLbev3S" Gaia-X 000 Compliance

#### vc\_gaiaxcompliance.json

vc\_registrationNumber.json

},

1 { 2

9

10 11

12

13

14

15 } 16 }

1	{
2	"id": "https://gaia-x-clearing-house.example//complianceResult/1",
3	"type": ["VerifiableCredential"],
4	"issuer": "https://gaia-x-clearing-house.example/",
5	"expirationDate": "2022-09-12T19:38:26.853Z",
6	"credentialSubject": [
7	{
8	"type": "gaiaxCompliance",
9	"id": "http://example.com/credential/1234",
10	"hash": "0f5ced733003d11798006639a5200db78206e43c85aa0386d7909c3e6c8ed5
11	},
12	{
13	"type": "gaiaxCompliance",
14	"id": "http://example.com/notary/ABC",
15	"hash": "0f5ced733003d11798006639a5200db78206e43c85aa123456789789123456
16	}
17	],
18	"proof": {
19	"type": "JsonWebSignature2020",
20	"created": "2022-06-12T19:38:26.853Z",
21	"proofPurpose": "assertionMethod",
22	"jws": "z2iiwEyyGcqw3WYLbev3S",
23	"verificationMethod": "did:web:gaia-x-clearing-house.example#key2"
24	}
25	}

#### N N N I Z × × *× / / /* ----111111

#### Under the hood 2/2

unsigned\_claims.json

"@context": {"..."},

"@context": {"..."},

legalAddress":

"@context": {"..."},

"requestType": "API"

"policy": [],

1 [

12

13

14

15

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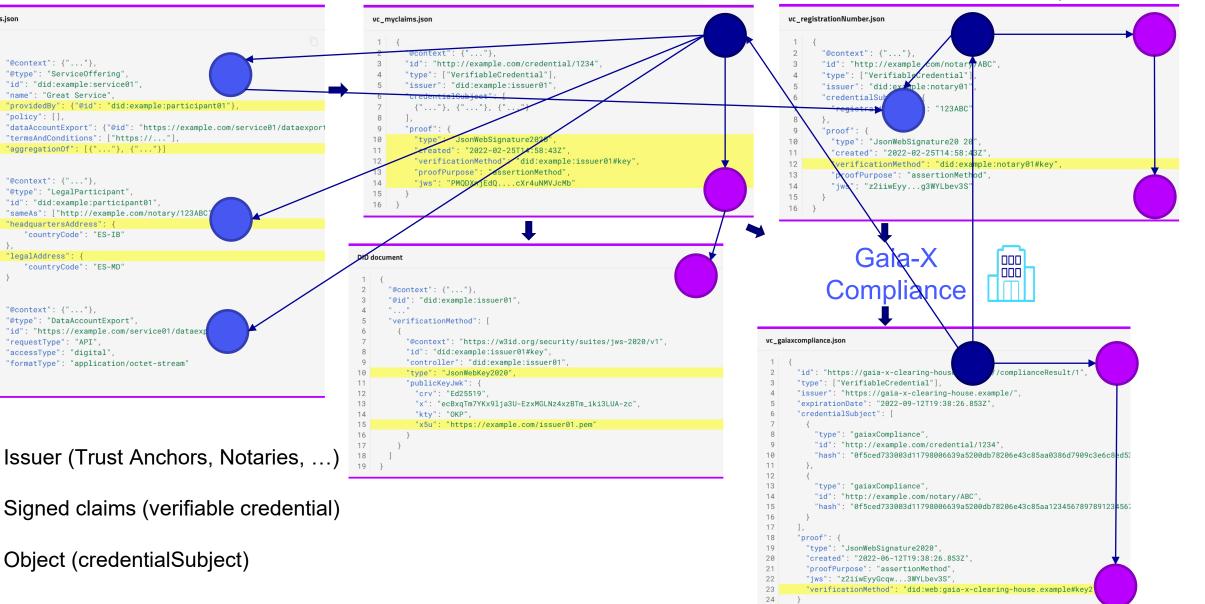
29

30

31

32

33 ]



25 }

N N N I Z ~~ / / / / /

--------111111

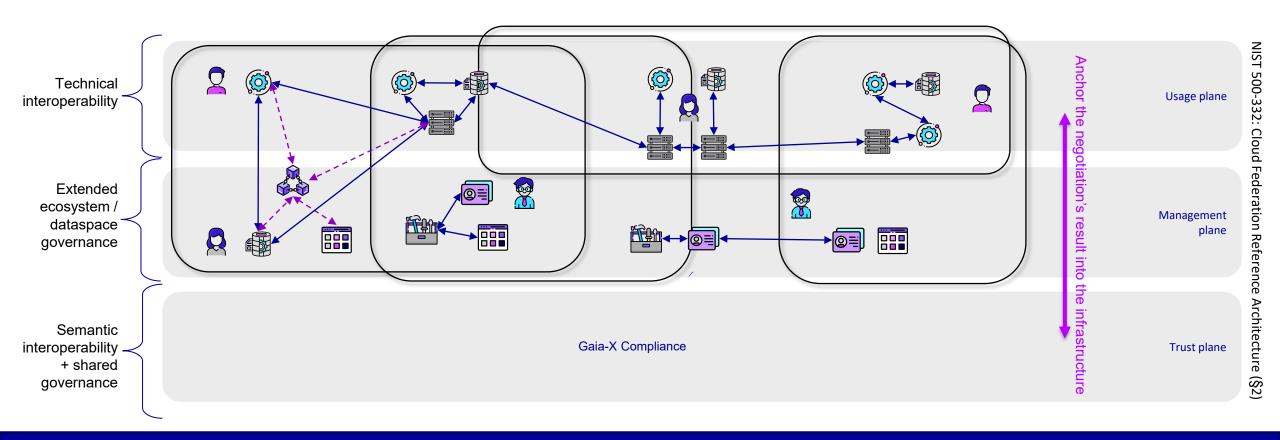
#### Indexes to measure Trust *Veracity*(*G*): -Length of the signing key chain Number of the signatures Transparency(G): -Ratio of exposed optional attributes vs mandatory attributes -Depth of the graph composition SemanticMatch(G): -

gaia-x

- Use of recommended controlled vocabularies (Data Privacy Vocabulary, ODRL Vocabulary, ...)
- embedding structured metadata with unstructured data (XMP, Facture-X, ...)
- TrustIndex: G -> f(Veracity, Transparency, SemanticMatch)



Dataspace: A group of participants agreeing to a common set of rules for data exchange.



Gaia-X Clearing House

Service catalogue

🔏 Federator 💦 👤

👱 / 🗟 Participants

DLT



#### What's next ?

gaia-x

- Indexes to measure Trust
- Lead the path towards semantic interoperability
- Compliance as Code
- Anchor the results of data negotiation into the infrastructure
- Enable service composition (Interconnection Point Identifiers)
- Validation testbeds to grow create a software landscape



## Send us your questions via Sli.do Scan the QR code or join slido.com and use the number below Join at slido.com #1277 800



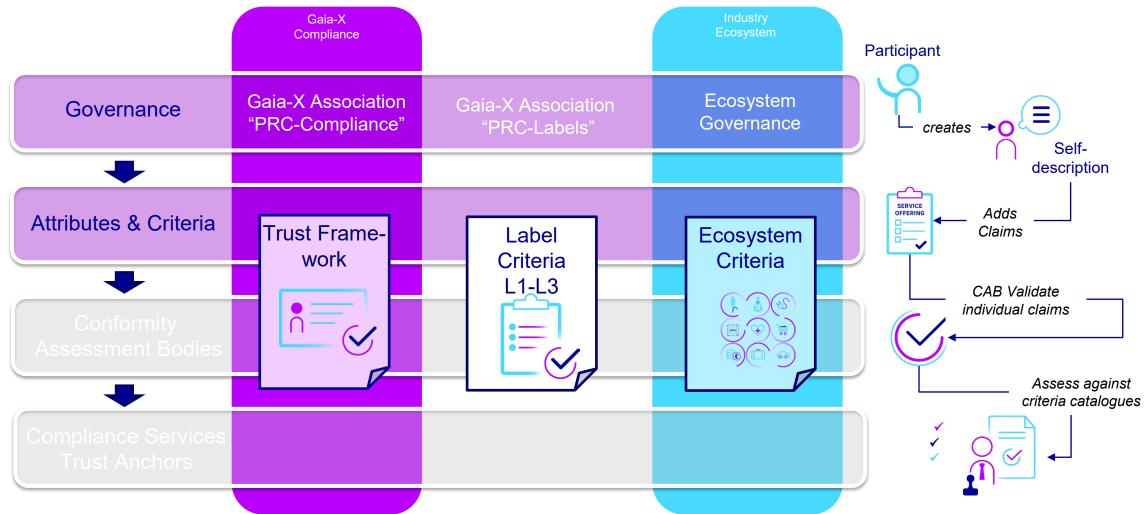


#gaiax @ticapix



### Gaia-X Trust Framework business view





## Gaia-X Digital Clearing House (GXDCH)

#### **GXDCH** Components\*



Gaia-X Registry (mandatory)

Gaia-X Compliance (mandatory)

Wizard (optional but extremely useful)

Catalogue (optional but extremely useful)

Verifiable Credentials (Wallet) (optional but extremely useful)

NOT\*\*\* (optional but extremely useful)

\* Current list, may expand in future releases

\*\*OCM-organization credential manager, PCM-personal

credential manager

\*\*\*NOT-notarization services

**GXDCH Operations** 



gala->

- Gaia-X Clearing Houses will be distributed across multiple authorized providers to provide resilience and accessibility
- Gaia-X AISBL will maintain the sole role and right to select, authorize and audit such GXDCH service endpoints and their providers
- Gaia-X AISBL will define amending contractual terms defining a business model to be applied after the twelve months grace period.

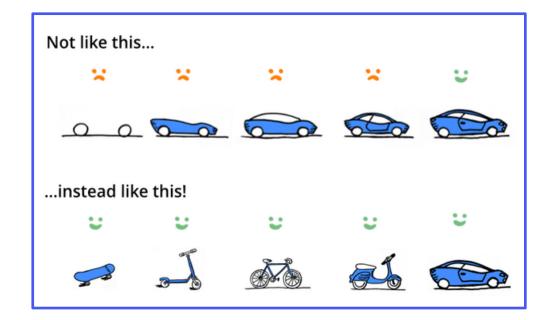
Gaia-X Release Plan

### From Vision2<sub>Product</sub>

Not a one lump, but an incremental, structured and smart balance between Time2Market, Vision, Evolution, Reliability

### Gaia-X (GXDCH) Release Definitions

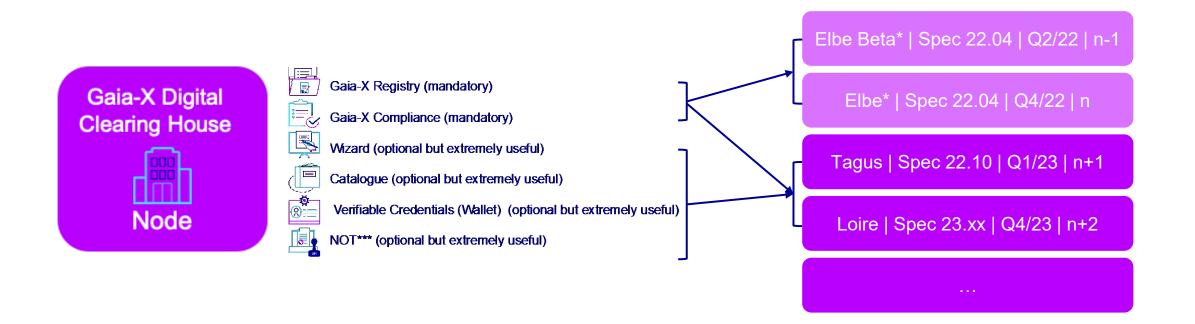
- Major
  - Major new features
  - Groups previous patches
  - No back-comp guaranteed
- Minor
  - Minor improvements
  - Key fixes
  - Backward compatible
- Patch
  - bug fixes for a given release
- Release Cycle
  - 6 months (Minor-Major)
  - 12 months (Major-Major)





#### Gaia-X Release Plan





### **Business value**

1111 gaia-x

"We developed a standard provider (Dufour) user (Mont Blanc IoT) relationship into a new ecosystem, both party can monetize"

2 Trust Ancho Data Storage Exposure Loop to FEDERATIC Step 1 

Trust and transparency Matchmaking and cooperation

Broad business partner relationships

¢

Interoperability

between

Federations and

Data Spaces

Cooperation standards

**Business** growth

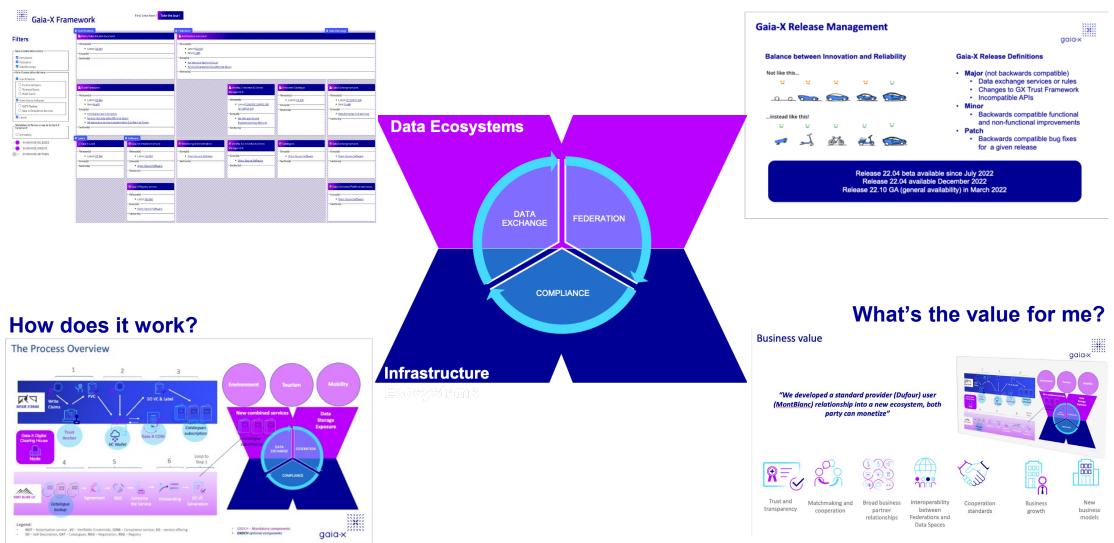
New business models

### **Gaia-X Demo Summary**

gaia-x

How can I use it?

#### What is it?





## Send us your questions via Sli.do Scan the QR code or join slido.com and use the number below Join at slido.com #1277 800





#gaiax @ticapix



# Lunch Break



### See you back at 12:30 CET





#### **Firestarter Expert Intro**

Jeroen Tas, BoD Member of Gaia-X François Candelon, Managing Director & Senior Partner at Boston Consulting Group



## Session 1. Health

### Moderators:

Jeroen Tas, BoD Member of Gaia-X Bert Verdonck, Gaia-X Health Domain Lead



## Session 1. Health

Moderators:

Jeroen Tas, BoD Member of Gaia-X Bert Verdonck, Gaia-X Health Domain Lead

Panelists:

Jasmin Schulz, PhD - Strategic Programme Officer, Luxembourg Institute of Health

**Juan Arenas Márquez** - Head of Project Management Office ELIXIR

**Luis Marti-Bonmati** - Director of the Medical Imaging Department and Biomedical Imaging Research Group at Hospital Universitario y Politécnico La Fe and Health Research Institute, Valencia, Spain.

Tim Schurig - Health-X Business Models at Freie Universität Berlin

Bruno Ristok - CEO at C&S Computer und Software



Bert Verdonck

Gaia-X health domain lead









# Clinnova



Session 1. Health

Jasmin Schulz, PhD

Strategic Programme Officer, Luxembourg Institute of Health



Session 1. Health

Juan Arenas Márquez

Head of Project Management Office ELIXIR



# European Genomic Data Infrastructure & EHDS

Juan Arenas Márquez, Head of ELIXIR PMO 14 November 2022



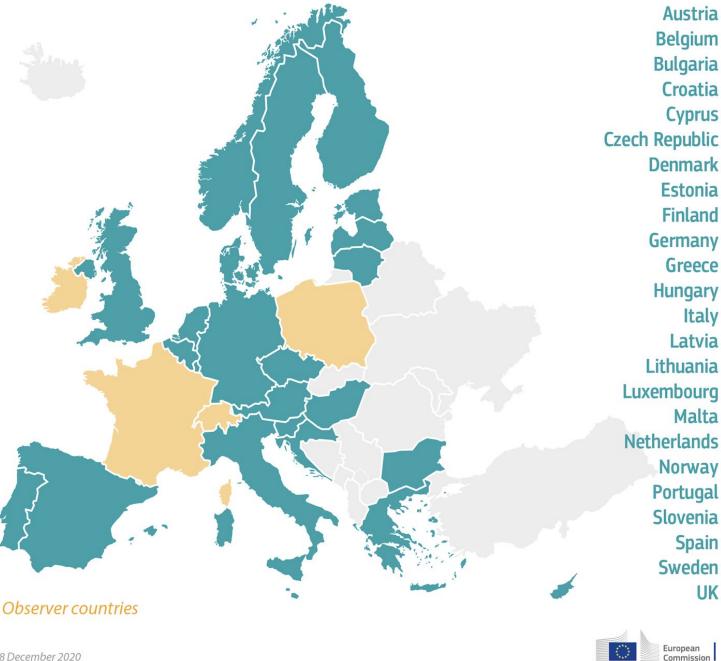
Funded by the European Union





# 1+MG initiative

**66** 1+MG facilitates countries to realise a practice of personalised medicine and health, based upon a shared 'trust framework' and the infrastructure to safely access and integrate high quality genomic data and other health data across borders



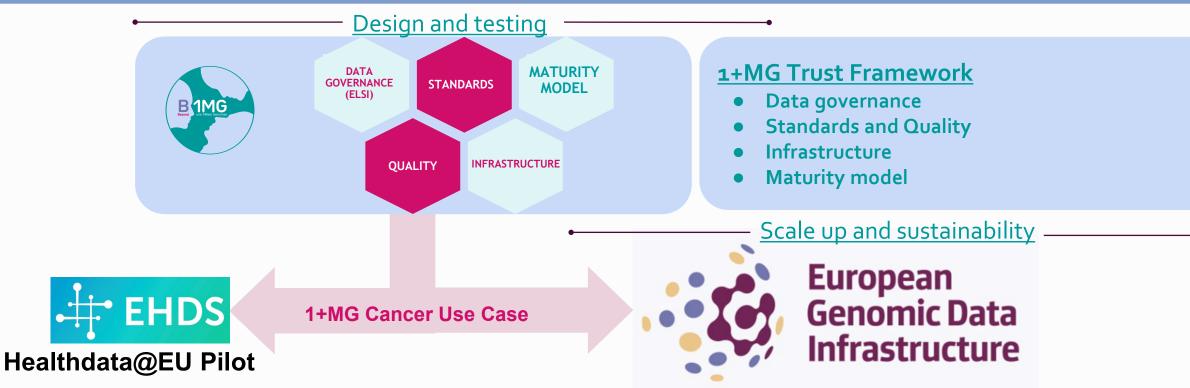




# Realising a practice of personalised medicine & health



Long-term strategy: cross-border access to genomic data, implementation of genomics-based health 1+MG Group, National Mirror Groups and Thematic Working Groups, Use Cases Working Groups: cancer, infectious diseases, rare diseases, common complex diseases, industry *Genome of Europe (GoE)* 





# GDI participation in numbers

44 project beneficiaries
4 Affiliated Entities (AEs)
6 Associated Partners (APs)

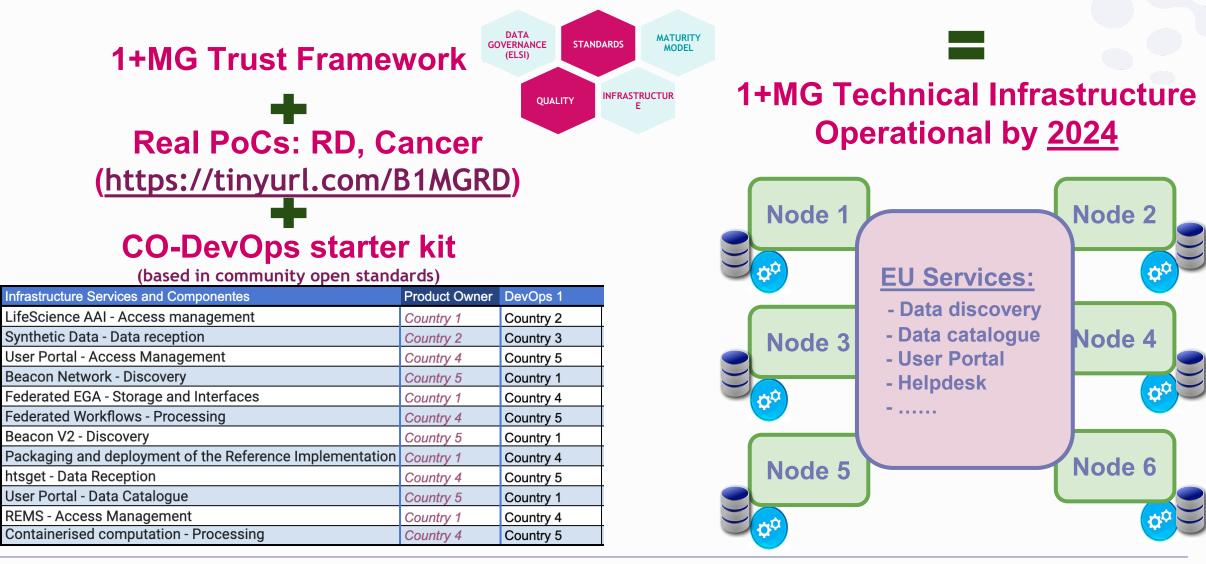
20 countries (all European) At least 6 countries operational by 2024 At least 15 countries operational by 2026

TOTAL: **54** project partners

(2 Research Infrastructures)



# Pillar II 1+MG infrastructure FI, SE







# **Opportunities**

- Technical and data stewarship capacity to generate high quality data
- Support adoption of 1+MG Trust Framework at the national/insititutional level
- EHDS legislation would require data holders to make data discoverable
- EHDS legislation would require data holders to make data available between in two months of a request being approved by the Data Access Body





# Consortia







# Consortia (continue)







European Genomic Data Infrastructure

Thanks!!! gdi-coordination@elixir-europe.org









# Question

• How the efforts on EHDS and 1+MG initiatives will be aligned?

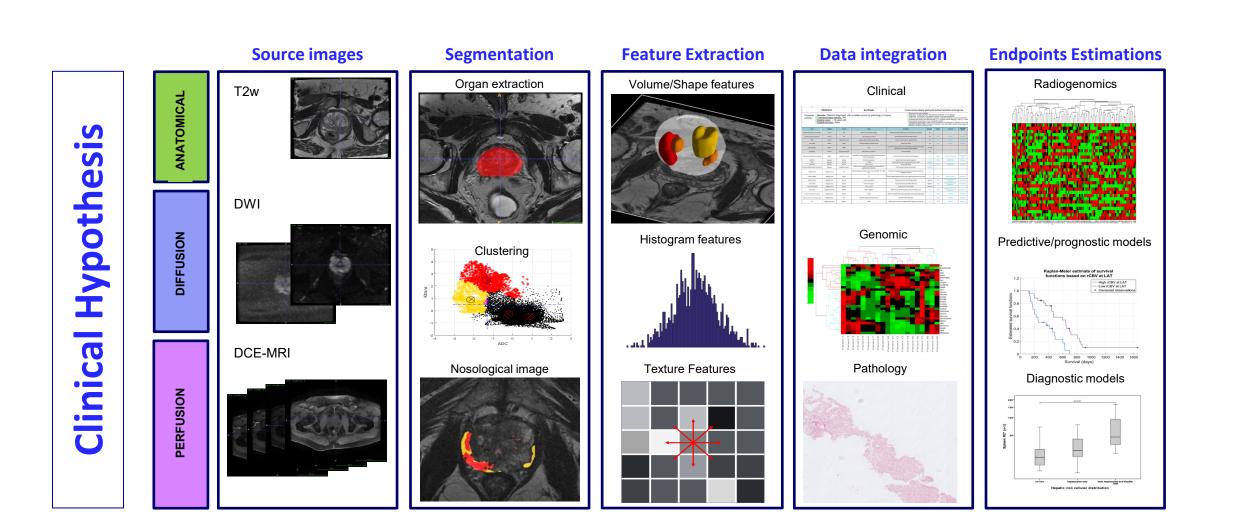


Session 1. Health

## Luis Marti-Bonmati

Director of the Medical Imaging Department and Biomedical Imaging Research Group at Hospital Universitario y Politécnico La Fe and Health Research Institute, Valencia, Spain.

#### Images are Data: FAIRness and Modelable



gaia-x

#### Image anonymization

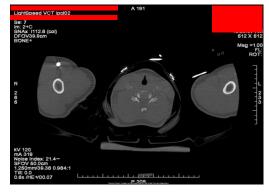


#### DICOM HEADERS (Metadata)

Data Element	Description	De-identification
(0008,0014)	InstanceCreatorUID	@hashuid(@UIDROOT,this)
(0008,0015)	InstanceCoercionDateTime	@hashdate(this,PatientID)
(0008,0018)	SOPInstanceUID	@hashuid(@UIDROOT,this)
(0008,0020)	StudyDate	@hashdate(this,PatientID)
(0008,0021)	SeriesDate	@hashdate(this,PatientID)
(0008,0022)	AcquisitionDate	@hashdate(this,PatientID)
(0008,0023)	ContentDate	@hashdate(this,PatientID)
(0008,0024)	OverlayDate	@hashdate(this,PatientID)
(0008,0025)	CurveDate	@hashdate(this,PatientID)
(0008,002A)	AcquisitionDatetime	@hashdate(this,PatientID)
(0008,0050)	AccessionNumber	@hash(this,8)
(0008,0058)	FailedSOPInstanceUIDList	@remove()
(0008,0080)	InstitutionName	@empty()
(0008,0081)	InstitutionAddress	@remove()
(0008,0082)	InstitutionCodeSeq	@remove()

DICOM Header anonymization proposed by RSNA http://dicom.nema.org/medical/dicom/current/output/html/part15.html#chapter\_E. IMAGE

#### Text annotations on the image containing identifying information



#### **Facial Information**



https://www.na-mic.org/wiki/Mbirn:\_Defacer\_for\_structural\_MRI

#### **Reproducible Data and Multidimensional Modelling**

#### Data Harmonisation: Limiting Uncertainties

9/18

(acquisition cohort variance) must be removed before integrating diverse clinical features. Harmonisation Techniques Input Distribution-based Methods Image Processing Synthesis Invariant Feature Learning Data types: raw data or refined features Location-scale Methods Image Filtering Paired sample-to-sample Synthes Dictionary Learning ComBat
 ComBat-s MLPH • SDL Refined features Physical-size Resamplin Raw data BM-ComBat 
 QN-ComBa SHNet UCRI • DWD • Deep-RISH Standardization/Normaliza Autoencoder based Methods DeepHarmony Data Modality: image data Distribution-based • GCN Iterative Clustering Methods DESC Deep HDKI or gene matrices Method • LCN • CPN BERMUD/ Deep HRK • HM Harmony Gene matrices Image Data Deep HST • FRCN Adversarial Learning Methods MMD-ResNet Nearest Neighbours Methods AD<sup>2</sup>AH CategoryCN PSI-CLONE • MNN • CCN • DUH High performance Distribution-based Scanorama scDGN Method GPU available? Unpaired sample--sample Synthe Stain Separation Methods: BBKNN NormAE CycleGAN • CD Seurat Conditional VAE SPCN Yes scAlign Remove Unwanted Variations ACE Can the main task be Yes Data scale: sufficient RUV-2
 SVA
 SVDH RCCSS integrated into training? training samples? scMerge 
 PLN 
 RAVEL StainCNN Yes Spherical Harn No • RISH • SMH Image Invariant processing Synthesis Distribution Alignment feature learning CDFA 
 GCDF 
 PDFM

To improve stability and robustness, the bias of distribution between different multicenter datasets

Nan Y et al. Data harmonisation for information fusion in digital healthcare: A state-of-the-art systematic review, meta-analysis and future research directions. Inf Fusion. 2022;82:99-122.

CHAIMELEON Project - GA: 952172

8/18

chaimeleen

#### AI to Harmonized Images

#### **Predictive-Prognostic Clinical Models**

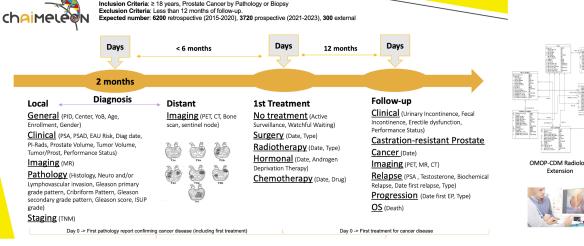
#### **Big and Smart Data for Intelligent Prediction Models**

Clinical Objective: Tumor precise staging/grading for treatment allocation and prognosis

OMOP-CDM Radiology Extension

CHAIMELEON Project - GA: 952172





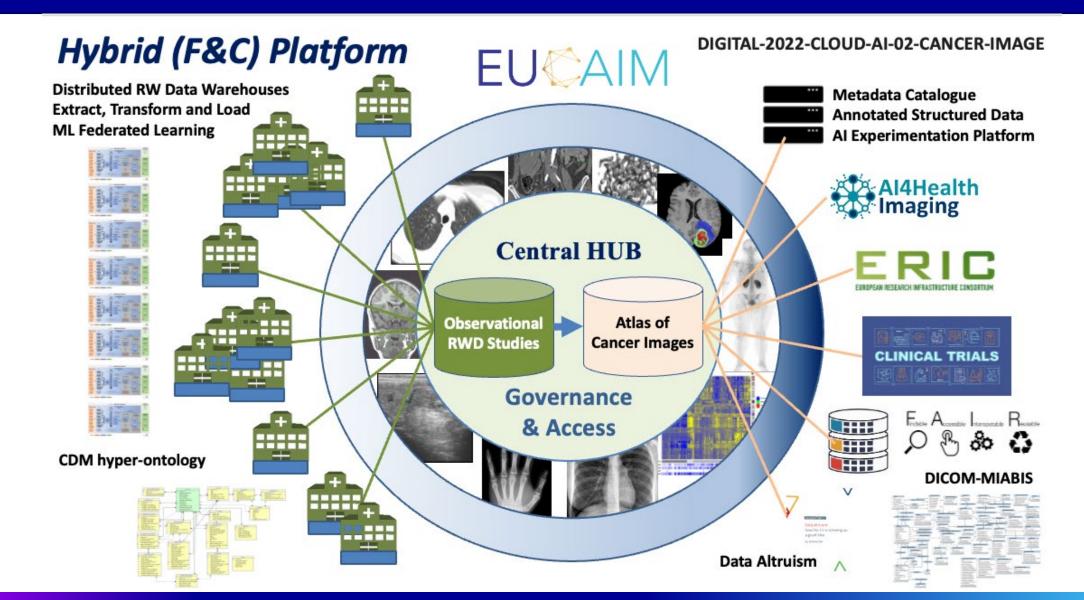
gaia->

Summary Patient Clinical History

**Prostate Cancer** 

**EUropean CAncer IMage** infrastructure will deliver an integrated architecture designed by the AI4HI Network and major European Research Infrastructures (Euro-Biolmaging, BBMRI, EATRIS and ELIXIR).





#### Gaia-X (Federated and Secure Data Infrastructure and HPC) links to EUCAIM







Thank you!

luis\_marti@iislafe.es

## Health-X dataLOFT



#### Tim Schurig

Health-X Business Models at Freie Universität Berlin

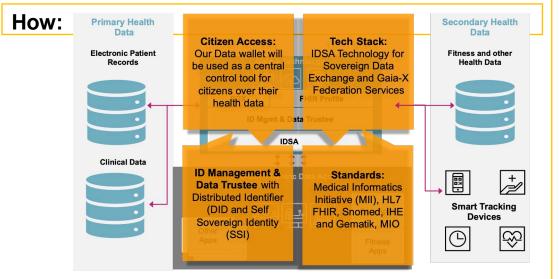
# Health-X dataLOFT



Building a Legitimate, Open, FederaTed European Health Data Space

#### **Status Quo:**

- Primary use of healthcare data is strongly regulated
- Secondary use of healthcare data is dominated by GAFAM
- European healthcare data is fragmented, largely inaccessible and stored in data silos
- Centralized data collection contradicts European values and our European regulatory framework
- □ Need for a (European) Health Data Space



#### **Our Vision and Mission:**

- Through our Health-X dataWallet, we aim to provide voluntarily, consent-based, legally compliant & citizen-centric health data access
- Decentral and federated approach to increase trust and security
- Utilization of primary and secondary health data for improved data-driven care and prevention

#### **Our Approach:**

- Fine-granular access control: Who can access when for which purpose my health data?
- **EHDS** conform data exchange ecosystem enabling research and platform-based smart services
- Interoperability to existing standards, integrating existing infrastructures and cooperating with other initiatives and stakeholders
- Four Use Cases: (1) Autonomous Everyday Health,
   (2) Clinical Accompaniment, (3) Personalized Health Services, and (4) Secondary Use of Data

Supported by:

Federal Ministry for Economic Affairs and Climate Action



#### Our consortium members:

- Charité University Medicine Berlin (Project Lead)
- Freie Universität Berlin
- Bundesdruckerei GmbH
- Fraunhofer-Gesellschaft for the Promotion of Applied Research e.V.
- Hasso Plattner Institute for Digital Engineering GmbH
- International Data Spaces e. V.
- IONOS SE
- Medisana Space Technologies GmbH
- OFFIS e.V.
- polypoly Enterprise GmbH
- Siemens Healthcare GmbH
- SVA System Vertrieb Alexander GmbH
- TMF e. V.
- Vilua Healthcare GmbH

#### Thank you!

Tim Schurig, Freie Universität Berlin, Germany

E-Mail: tim.schurig@fu-berlin.de or https://www.linkedin.com/in/tim-schurig/ or info@health-x.org

#### More on Health-X:





Session 1. Health

**Bruno Ristok** 

CEO at C&S Computer und Software

# TEAN-X

# Gaia-X Health-panal

Bruno Ristok - C&S Computer und Software GmbH

17.11.2022



Gefördert durch:

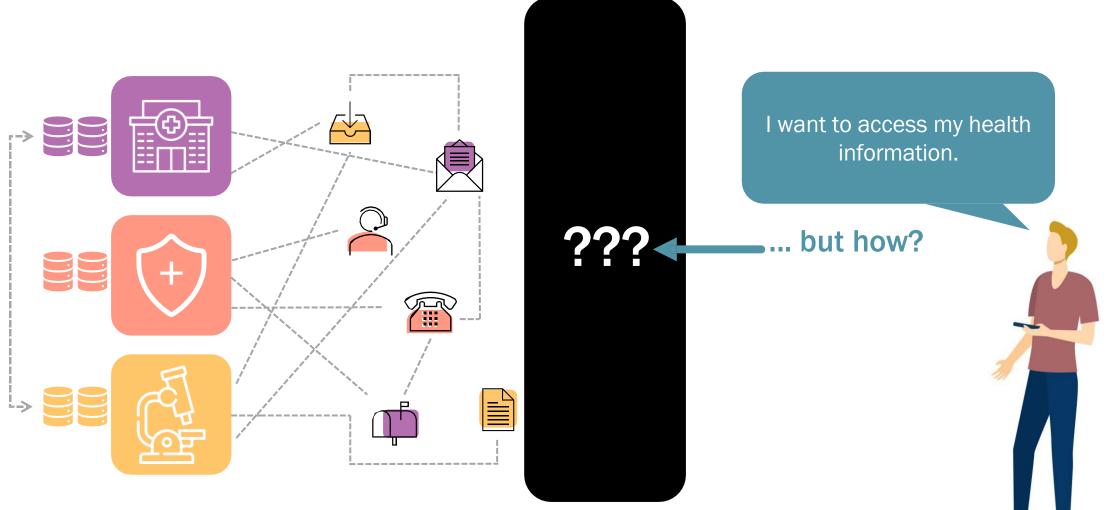
Bundesministerium für Wirtschaft und Klimaschutz

aufgrund eines Beschlusses des Deutschen Bundestages

Trusted Ecosystem of Applied Medical Data eXchange

#### Where is our health data stored today?







#### Currently, data from medicine and care are hardly used there is a lack of integration, usability and trust



Medicine



- No integration of data, especially on non-EU level
- No access to data from medicine and care
- No self-determination of the citizens
  - Slow digital transformation in care and medicine
  - Lack of effectiveness and efficiency of medicine and care

# TEAM-X develops these solutions based on two real and highly relevant use cases:





Women's health

Breast cancer care: Data from inpatient and outpatient care during the course of the disease. Data exchange and communication between patients, physicians, and health care providers.





#### digital care platform

Outpatient care for the elderly: Data from nursing documentation and sensors

Inpatient care for the elderly: For a self-determined and data-sovereign life in old age



aufgrund eines Beschlusses des Deutschen Bundestages

**Trusted Ecosystem of Applied** Medical Data eXchange



### Session 2. Banking & Finance

#### Moderators:

Patrick Laurens-Frings, Chief Information Officer, Caisse de Depots et Consignations Dr Stephan Bredt, Director General Economic Sector, Financial Services, Exchanges, Ministry of Economics, Energy, Transport and Housing of the State of Hessen



# Session 2. Banking & Finance

Moderators: Patrick Laurens-Frings Stephan Brendt

Panelists:

**Dirk Thomas**, Division Head – Big Data Advanced Analytics at Commerzbank

Aude Gauthier-Moreau, CIB ITO Deputy Head of Core Banking at BNP Paribas Christoph Schaper, Head of Division, Directorate General Information Systems, Innovation and Architecture Services Division

**Prof. Anne Riechert,** Data Protection and Information Processing Law at Frankfurt University of Applied Science

Sandrine Bogey-Leleu, Juriste Conseil Référent, Direction juridique Groupe BPCE



## Session 2. Banking & Finance

#### EuroDaT: what is the value proposition?

**Dr Stephan Bredt**, Director General Economic Sector, Financial Services, Exchanges, Ministry of Economics, Energy, Transport and Housing of the State of Hessen

#### Gaia-X Digital Economy - Session 2. Finance/Banking



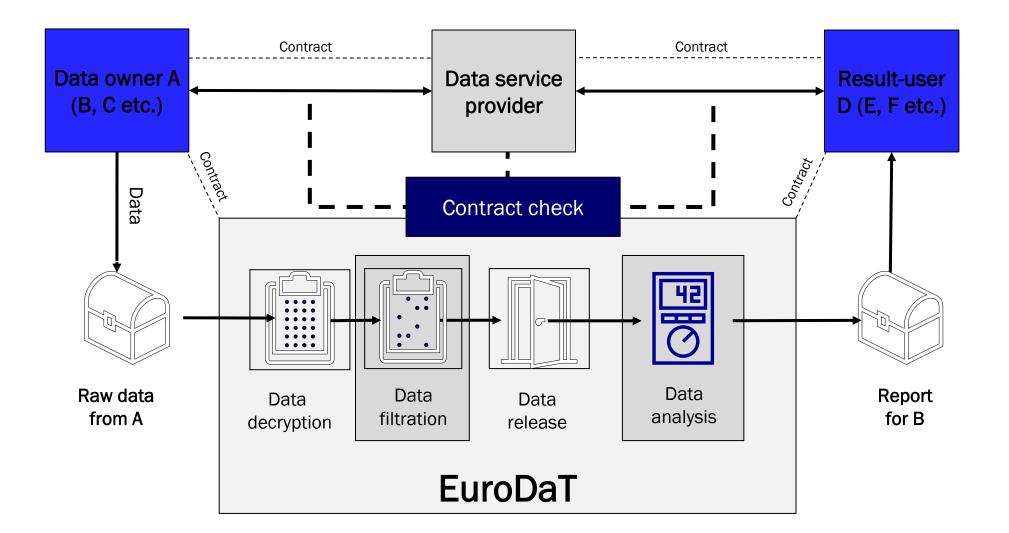


- Detection and prevention of fraud, money laundering and terrorism financing
- Aggregated ESG-Ratings from different financial institutions
- Real time household economic data for research purposes
- Financialmarket research using microdata

Gefördert durch:

Bundesministerium für Wirtschaft und Klimaschutz







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Sandrine Bogey-Leleu, Juriste Conseil Référent, Direction juridique Groupe BPCE



#### Thank you!





# Session 3. Energy & Sustainability

Moderator:

Martine Gouriet, BoD Gaia-X, Directrice des Usages numériques EDF



# Session 3. Energy & Sustainability

#### Moderator:

Martine Gouriet, BoD Gaia-X, Directrice des Usages numériques EDF

#### Panelists:

- Aniello Gentile, BoD Gaia-X and Director Global Cyber Security, Enel Dario Avallone, R&D Director, Engineering Ingegneria Informatica SPA
- Emmanuel Besse, CEO, Atos Worldgrid
   Véronique Lacour, Group Senior Executive Vice-Président, Transformation and Operational Effectiveness, EDF
   Antonello Monti, Professor, Institute Director, RWTH Aachen University
  - Günther Tschabuschnig, President, Data Intelligence Offensive (DIO)



#### Thank you!





#### Session 4. Tourism

Moderators:

**Dolores Ordoñez**, Coordinator Gaia-X Hub Spain **Vassilia Orfanou**, CMO of Gaia-X



Session 4. Tourism

Moderators: Dolores Ordoñez, Coordinator Gaia-X Hub Spain Vassilia Orfanou, CMO of Gaia-X

#### Panelists:

Rehana Scwinninger-Ladak, Head of Unit, EC DG CONNECT,

Icamaan Botelho, Head of Data & Analytics, Vueling
 Claudia Peteau, Chief Data Officer, APIDAE TOURISME
 Roberto Tundo, Chief Technology, Innovation & Digital Officer, Gruppo Ferrovie dello Stato Italiane
 Ariel Selles Gras, Director of Operations, Avoris Travel
 Ana Moniche, Senior Officer Statistics and Market Research, Turismo Andaluz-NECSTOUR



#### Thank you!





15:20 – 16:00 – Knowledge Cafe Data Space Networking Discussion & Q&A

Send us your questions via Sli.do Scan the QR code or join slido.com and use the number below



Join at slido.com #1277 800

# **Coffee Break**



#### See you back at 16:20 CET



# Gaia-X Automated compliance: 'the' solution or 'a' solution

gaia-x

#### **Inspirational Speech – the European Commission angle**

Ivo Volman Director of the Data directorate in the Directorate General for Communication Networks, Content and Technology, EC

# Gaia-X Automated compliance: 'the' solution or 'a' solution

gaia-x

#### **Chapter 2: Automated compliance**

Moderator:

Hubert Tardieu, Independent Board Member of Gaia-X

Gaia-X Automated compliance: 'the' solution or 'a' solution

gaia-x

# **Chapter 2: Automated compliance**

Moderator: Hubert Tardieu, Independent Board Member of Gaia-X

Panelists:

Marie-Anne Frison-Roche - ComplianceTech<sup>®</sup> Director at The Journal of Regulation &

Compliance (JoRC)

Martine Gouriet - BoD Gaia-X and Director digital uses at EDF

**Prof. Dr. Jakob Rehof -** Professor of Computer Science and Chair of Software Engineering at TU Dortmund

Joëlle Toledano, Professor emeritus at University of Paris Dauphine-PSL



#### Thank you!





Sovereign Intelligent Infrastructure and expansion of Gaia-X globally

Jeff De Coux, CEO at Autonomy Institute



Introduction to Partnerships – Converging forces into a common trust infrastructure

Francesco Bonfiglio, CEO at Gaia-X Association



Introduction to Partnerships – Converging forces into a common trust infrastructure

Partnership 1: iSHARE by the iSHARE Foundation

Responsible: Gerard van der Hoeven



Introduction to Partnerships – Converging forces into a common trust infrastructure

Partnership 2: x-Road, MTÜ Nordic Institute for Interoperability Solutions ("NIIS")

Responsible: Ville Sirviö

# gaia-x

# **Gaia-X Evolution for Business Impact**

Gaia-X Evolution & Expansion. Wrap-up of Day 1

**Dr. Maximilian Ahrens**, CTO at T-Systems International **Francesco Bonfiglio**, CEO at Gaia-X Association



#### Thank you!

