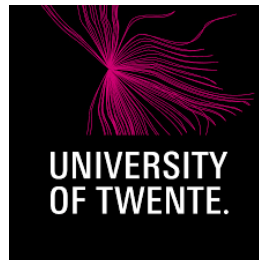


Gaia-X and Gaia-X Hub NL

—
May 2022

Peter Verkoulen



Rijkswaterstaat
Ministerie van Infrastructuur en Waterstaat



EQUATERRA



EU calls for data economy



A real **data economy**, on the other hand, would be a powerful engine for innovation and new jobs. And this is why we need to secure this data for Europe and make it widely accessible. **We need common data spaces** – for example, in the energy or healthcare sectors. This will support innovation ecosystems in which universities, companies and researchers **can access and collaborate on data**.

(State of the Union Address on 16 September 2020)

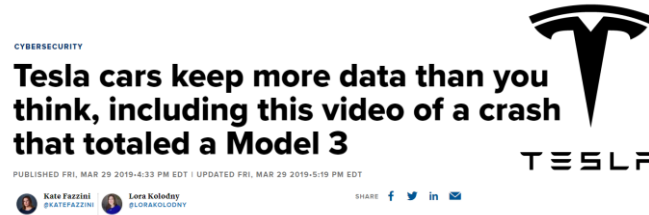
Let's dream BIG (and start one step at a time)!



Some questions raised around data



Majority of the Dutch Secondary schools using Google Chromebooks + Education Apps.
Where is the data stored?



Tesla cars generates a lot of data and this data is stored with Tesla in the US. What does Tesla know about you? And will this prevent Tesla cars from being serviced at your local garage?

Cloud Services Leadership – Europe

Rank	Total Europe	UK	Germany	France	Netherlands	Rest of Europe
Leader	Amazon	Amazon	Amazon	Amazon	Amazon	Amazon
#2	Microsoft	Microsoft	Microsoft	Microsoft	Microsoft	Microsoft
#3	Google	Google	Google	OVH	Google	Google
#4	IBM	IBM	Deutsche Telekom	Orange	KPN	IBM
#5	Salesforce	Rackspace	IBM	Google	IBM	Salesforce
#6	Deutsche Telekom	Salesforce	Oracle	IBM	Oracle	Swisscom

Based on IaaS, PaaS and hosted private cloud revenues in Q1 2020

Source: Synergy Research Group

The market of cloud providers in The Netherlands is dominated by the US players Amazon, Microsoft and Google with KPN on a fourth place, and then IBM.



Logius governmental core network for data sharing since 2019 is managed by US datacenter company Equinix.

AWS: Amazon web outage breaks vacuums and doorbells



© 26 November 2020

Due to a malfunction in Amazon's US cloud in 2020, many doorbells and vacuum cleaner robots stopped working, also in NL. Are we becoming too dependent on US-based cloud services?

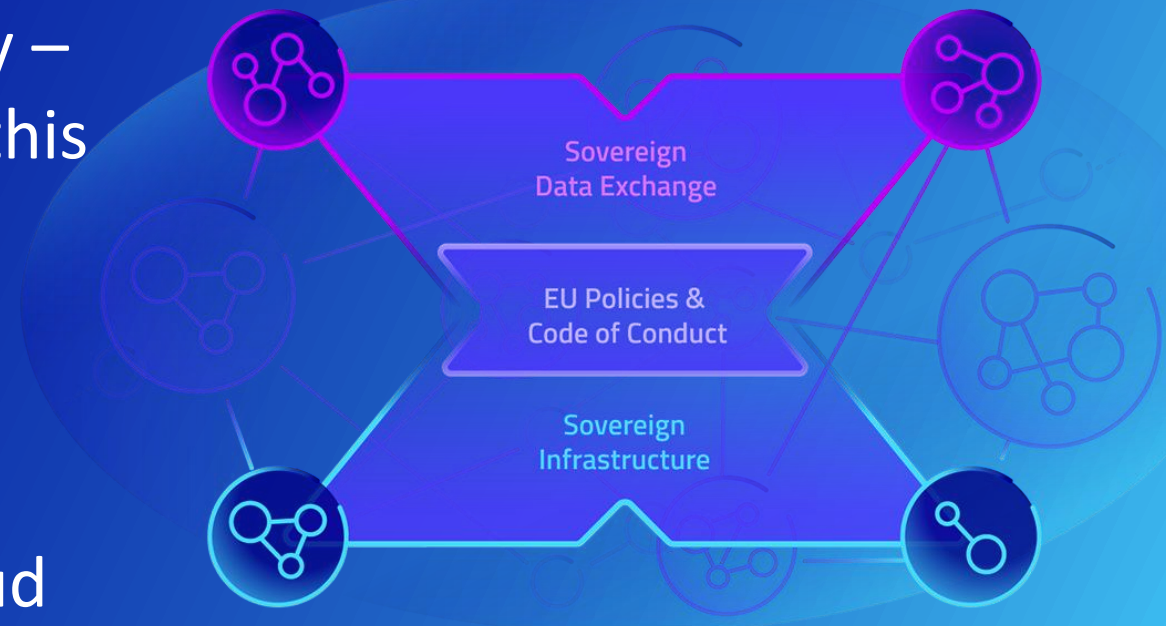
27 september 2019

Advies opslag medische data in de cloud

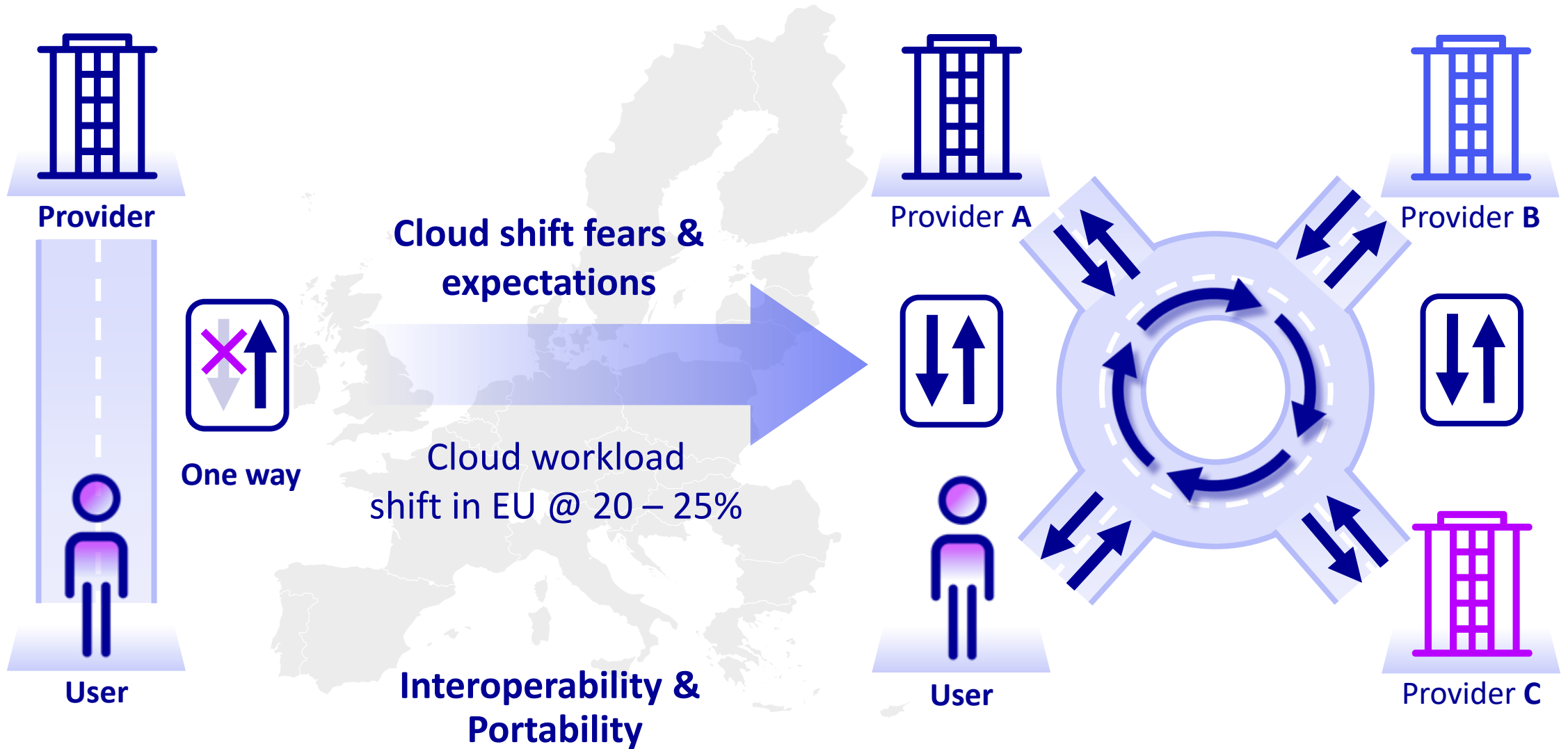


The government made a legal assessment in 2019 on risks associated with storing medical data with the large non-EU cloud providers. The advice was: take extra measures.

Innovation through digital sovereignty – that’s the goal of Gaia-X. We achieve this by establishing an **ecosystem** in which data is made available, collated and shared in a **trustworthy environment**. What emerges is not a cloud, but a **federated system** that links many cloud services providers and users together.



From one-way to free & sovereign



What we do? Gaia-X in scope activities

The Gaia-X association has more than 300 members and focuses on three outcomes

1

Specify
(Architecture specifications)

- We describe the architecture and functionality of Gaia-X
- We provide conformity requirements and criteria
- We collect applicable standards

2

Develop
(Open-source software code)

- We develop an open implementation of federation services
- We develop an open-source community

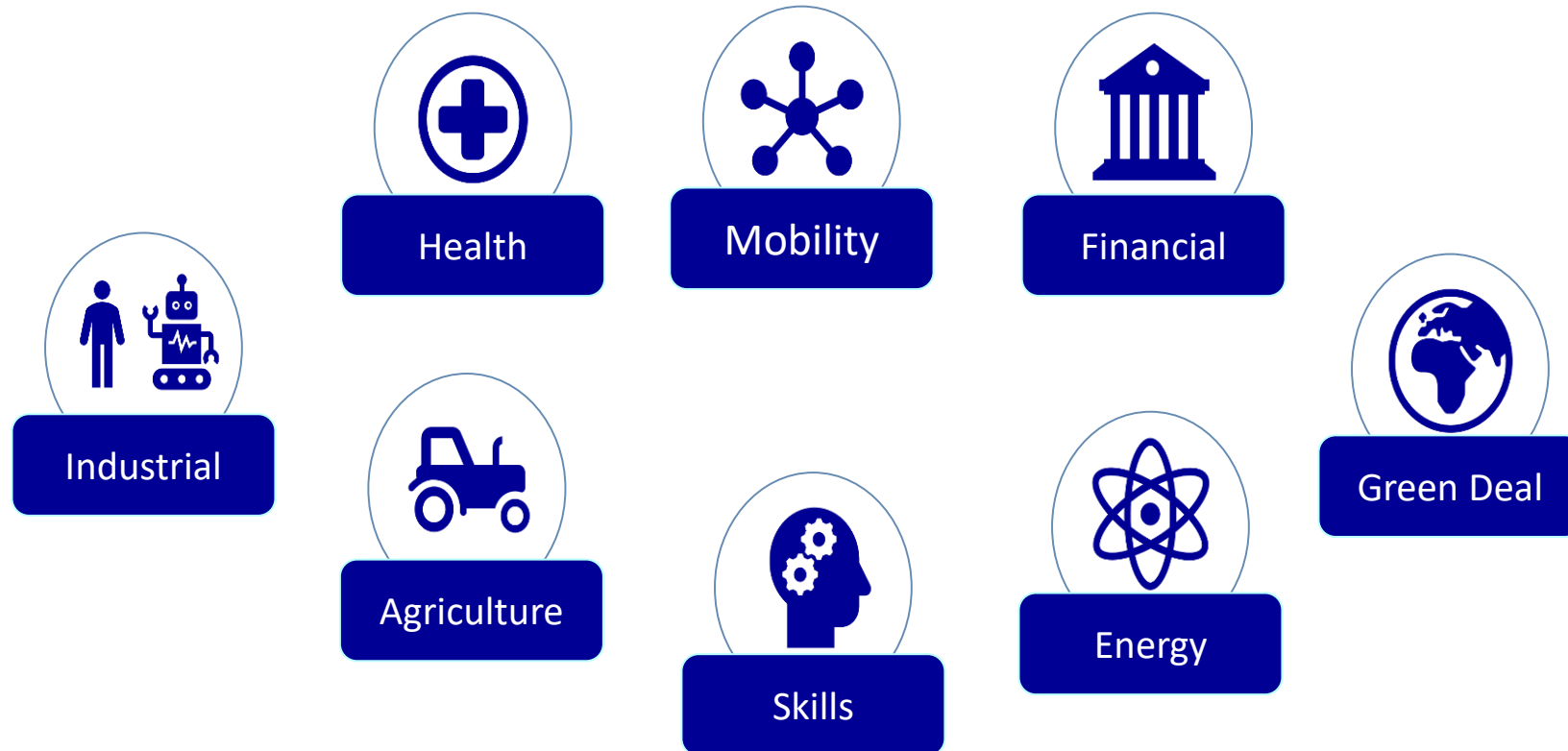
3

Qualify
(Instruments of qualification)

- We define labelling and qualification criteria*
- We implement or mandate qualification to 3rd parties
- We develop process and technology for qualification

* Qualification defined by conformance & (ex-ante) compliance

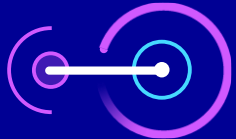
Data spaces facilitated by Gaia-X Association



1. Initial Vertical Spaces Identified (continuous evolution)
2. More than 70 Use Cases documented
3. Concrete Business Cases transformed into projects (e.g. Catena-X)
4. Hubs focus on Region specific Data Spaces
5. Hubs and AISBL collaborate on Data Space creation

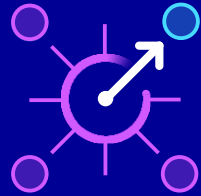
The roles of the Gaia-X Hubs

- Building the local (Dutch) ecosystem
- Use case incubation



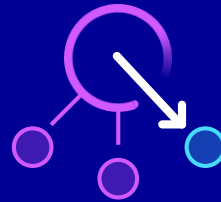
Connect

Hubs connect potential Gaia-X stakeholders, both within and across different countries and sectors.



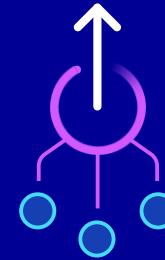
Spread

Hubs increase user interest across Europe and globally to scale up the spread of use cases.



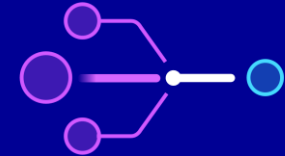
Coordinate

Hubs liaise closely with the Gaia-X Association to define requirements, relevant regulations and policies.



Consolidate

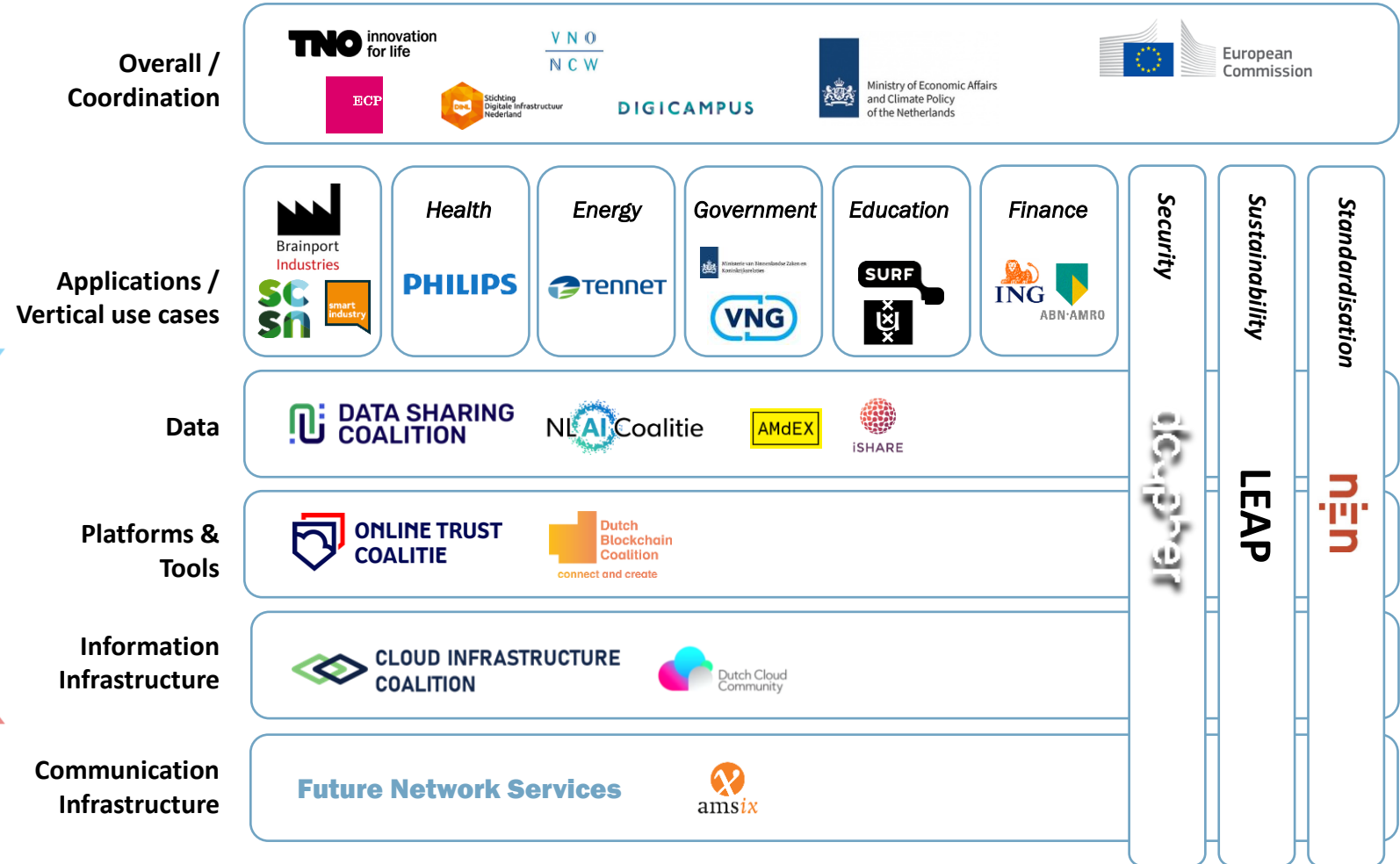
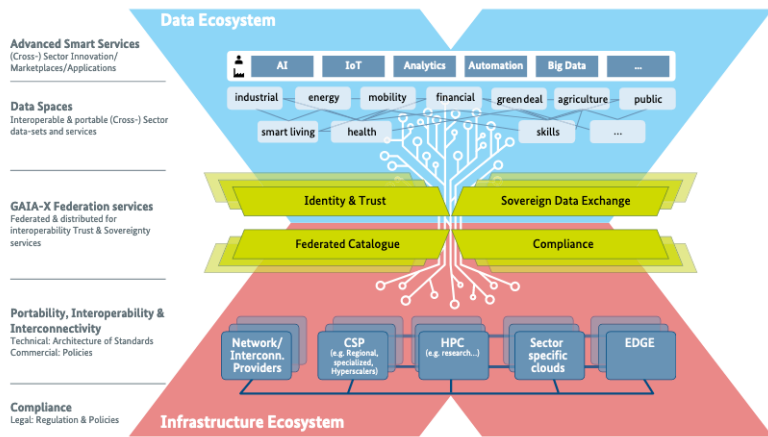
Hubs consolidate relevant initiatives within countries.



Streamline

Hubs ensure efficient cooperation and avoid the unnecessary doubling up of efforts within a particular industry.

Gaia-X plot on existing data & cloud ecosystem in NL



The Dutch Gaia-X hub is not “yet another initiative” and doesn’t want to replace or control other ongoing initiatives. It aims at becoming the Dutch overarching initiative for safe and sovereign data sharing based on a federative cloud approach where Gaia-X labels provide certainty on the solution, with a close link towards European development

Thanks for your attention!

For more information:

Peter Verkoulen – peter.verkoulen@tno.nl

—