The impactful role of Governments within Gaia-X

A thriving European Data Economy

An exceptional growth opportunity for industries:

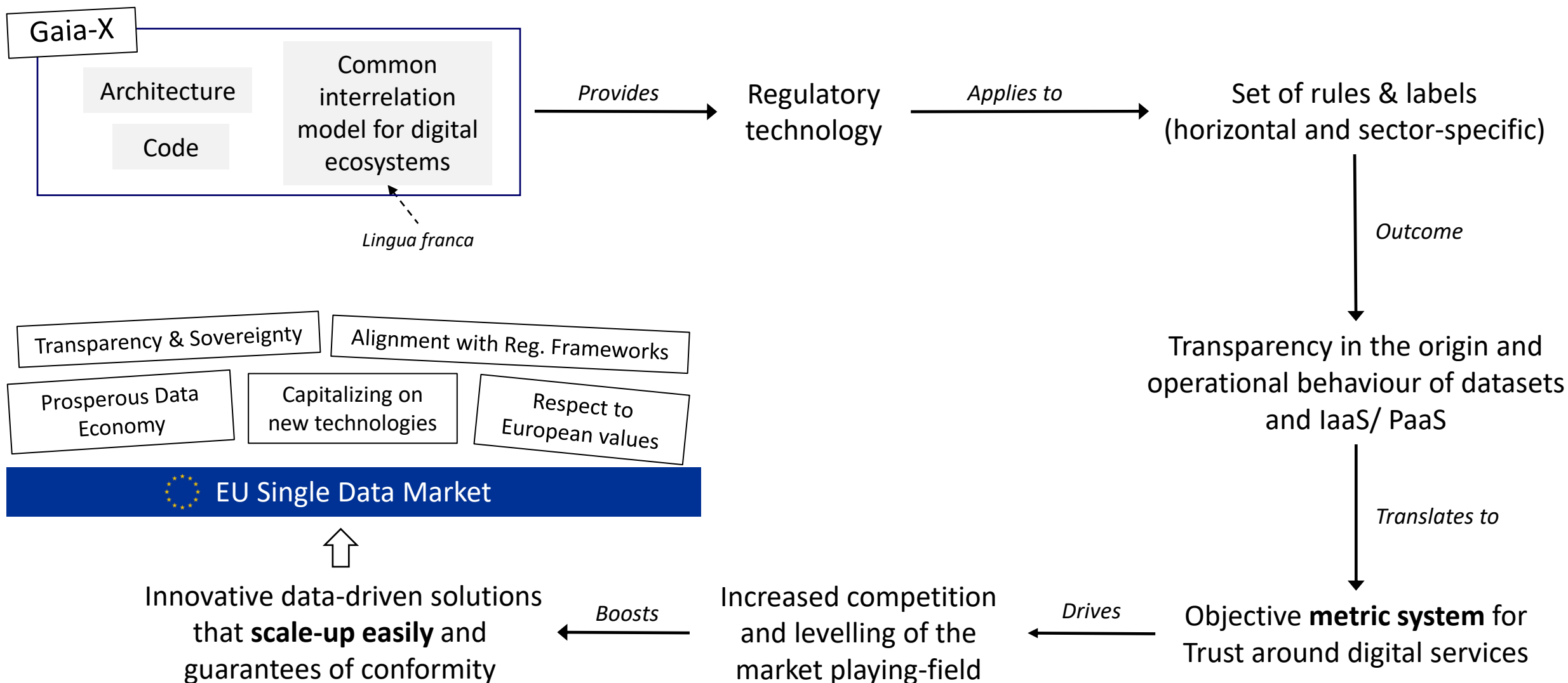**Projected figures 2025**

530% increase of global data volume From 33 zettabytes in 2018 to 175 zettabytes	**€829 billion** value of data economy in the EU27 From €301 billion (2.4% of EU GDP) in 2018	**10.9 million** data professionals in the EU27 From 5.7 million in 2018	**65%** Percentage of EU population with basic digital skills From 57% in 2018

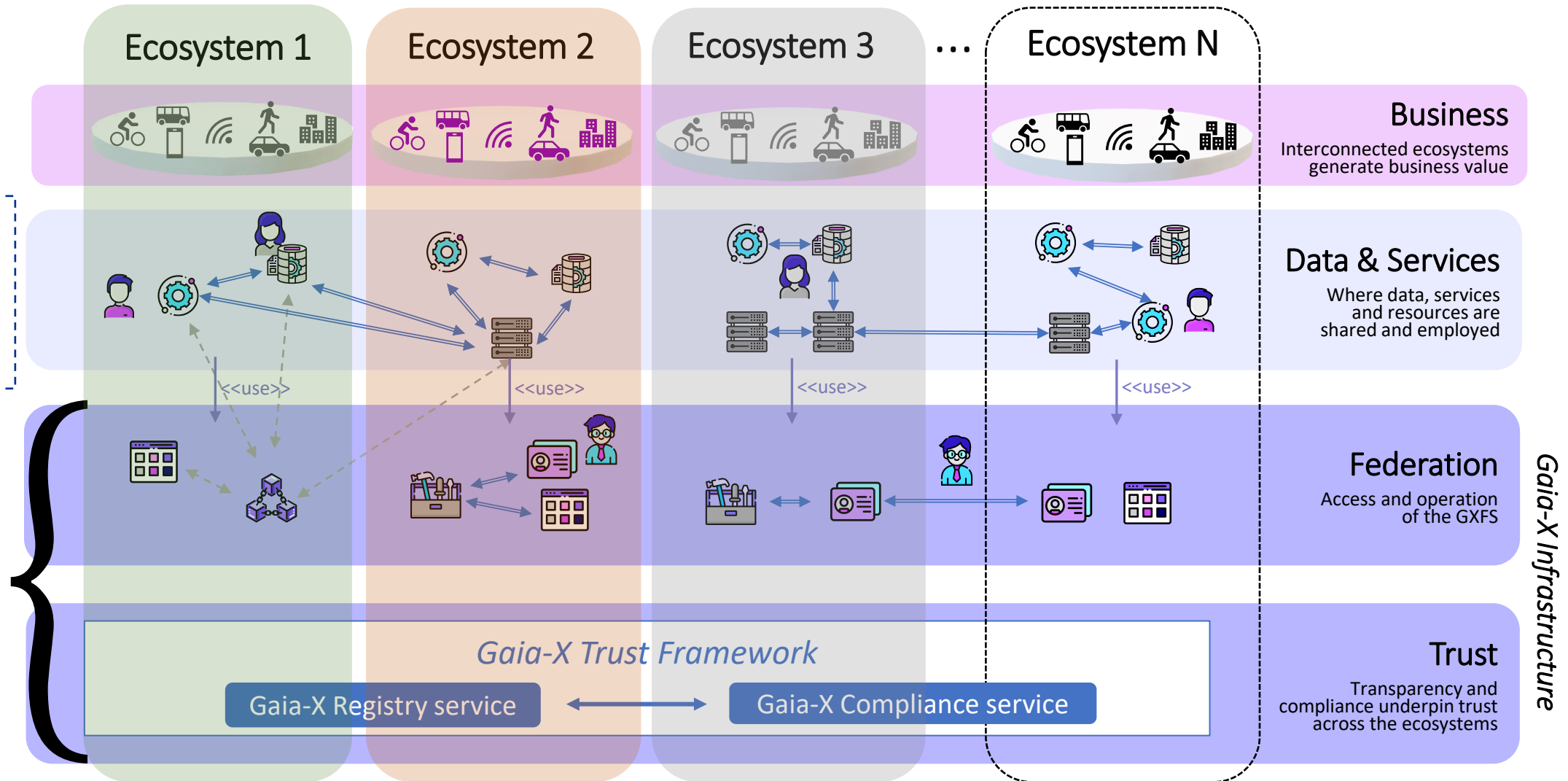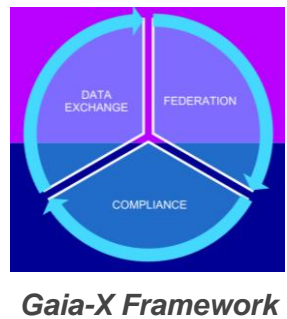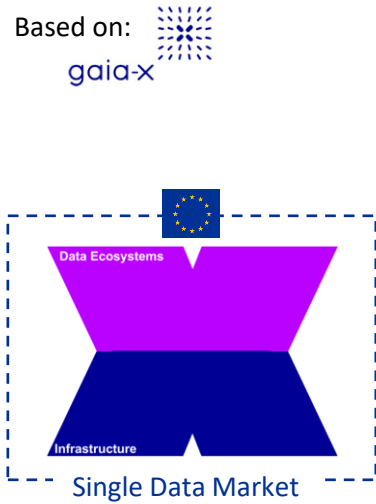… that must be harnessed

- without the promotion of inequalities
- without mortgaging the industrial or technological future of the Union
- without compromising core EU rights and values.

Gaia-X Value Proposal

Gaia-X Architecture

Based on: gaia-x

Single Data Market

Gaia-X Framework

market-x

Business — Interconnected ecosystems generate business value

Data & Services — Where data, services and resources are shared and employed

Federation — Access and operation of the GXFS

Trust — Transparency and compliance underpin trust across the ecosystems

Gaia-X Infrastructure

Ecosystem 1   Ecosystem 2   Ecosystem 3   ...   Ecosystem N

<<use>>   <<use>>   <<use>>   <<use>>

Gaia-X Trust Framework

Gaia-X Registry service   Gaia-X Compliance service

Federated services Toolbox   Federated services catalogue   Federator   Ecosystem participants   VC Wallet   DLT   Data   Computing cluster   Algorithm

How to articulate it within and across national industries?

- Gaia-X Hubs are the keystone for **market adoption**
  - National contact points
  - Helping build ecosystems of professionals
  - Designing and deploying use cases (leveraging the Gaia-X framework)

- Member State **governments play an impactful role** within their Gaia-X communities
  - Arbitrate across market strategies
  - Are at the interplay between Data Economy instruments and EU regulatory frameworks
  - Cast light and guidance into specific market failures
  - Design and execute national strategies

- Thus, it seems reasonable that governments ensure that **allocated financial resources generate valuable outcomes**

Governments remain key players

- European **data spaces are federated** by design
  - Their value grows and the number of node increases

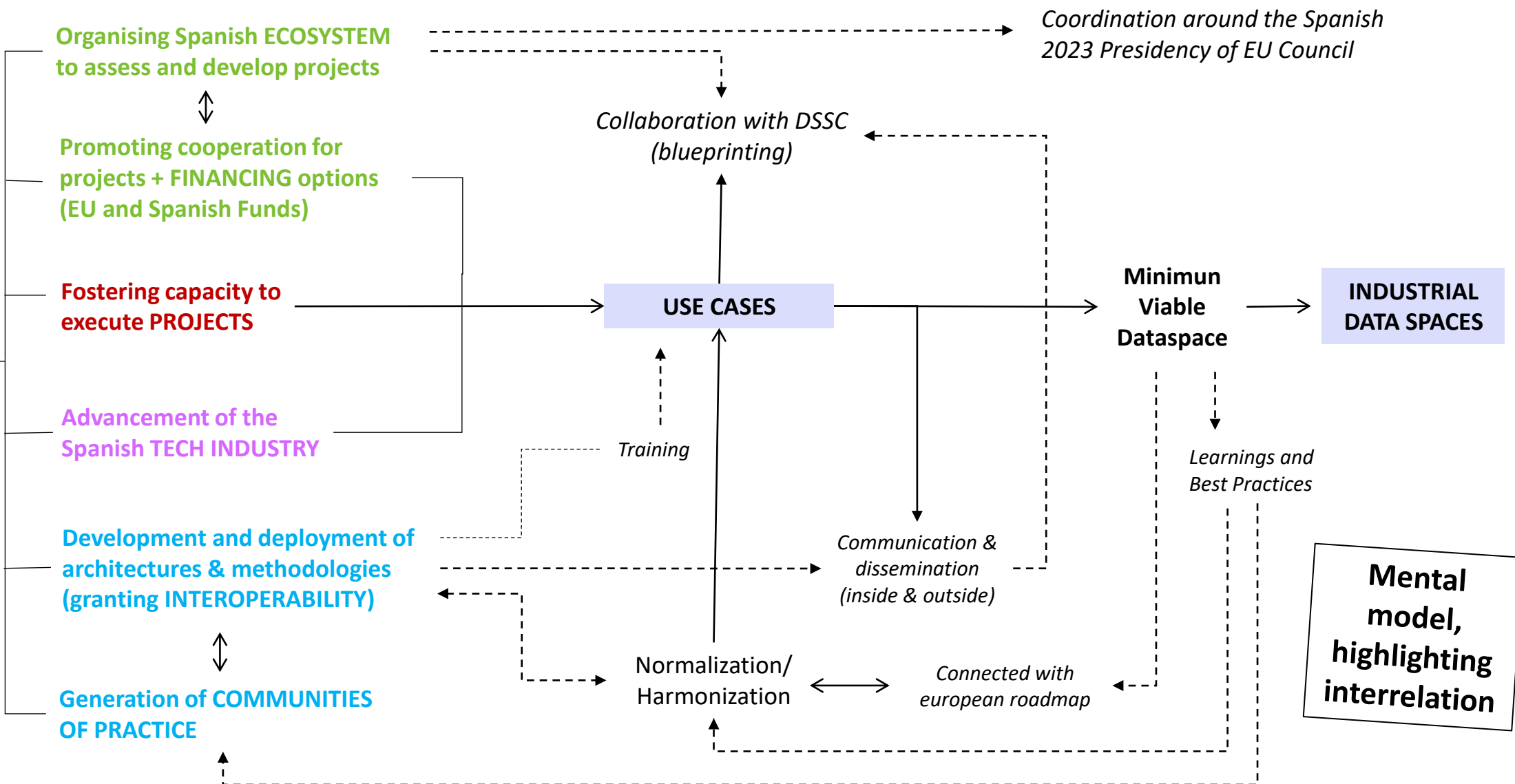- EU-wide level **interoperability is a key success factor**, accross
  - Technical
  - Semantic
  - Legal
  - Organizational
  - Business

- Governments remain key players in driving interoperability
  - Harmonization around prime areas of investment, volumes of funding, coherence of proposals, advancement of projects, and recognizable best practices
  - A common process flow across both national projects and cross-country collaboration → Uniform spreading and implmentation of the Gaia-X message

Results

1) Productive economies of scale
2) Guiding national constituencies towards Sovereign Data-driven Digitalization

Public-private partnership for a Sovereign Data Economy & Digital Public Goods as enablers

Gaia-X Hub Spain: Market Adoption

Organising Spanish ECOSYSTEM to assess and develop projects

Coordination around the Spanish 2023 Presidency of EU Council

Promoting cooperation for projects + FINANCING options (EU and Spanish Funds)

Collaboration with DSSC (blueprinting)

Fostering capacity to execute PROJECTS

USE CASES

Minimun Viable Dataspace

INDUSTRIAL DATA SPACES

Advancement of the Spanish TECH INDUSTRY

Training

Learnings and Best Practices

Development and deployment of architectures & methodologies (granting INTEROPERABILITY)

Communication & dissemination (inside & outside)

Generation of COMMUNITIES OF PRACTICE

Normalization/ Harmonization

Connected with european roadmap

Mental model, highlighting interrelation

gaia-x

Hub España

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Digital Public Goods

"Digital technology is shaping history. But there is also the sense that it is running away with us. Where will it take us? Will our dignity and rights be enhanced or diminished? Will our societies become more equal or less equal? Will we become more, or less, secure and safe?

The answers to these questions depend on our **ability to work together** across disciplines and actors, across nations and political divides (…)."

António Guterres

United Nations | Secretary-General

https://www.un.org/en/content/digital-cooperation-roadmap/

Governmental interventions to foster Digital Public Goods

More specifically, the Spanish National Data Office:

Mission

Overcoming challenges and barriers in the development of a prosperous Data Economy across different key national industries, by way of leveraging the current European positive political and regulatory frameworks, all while <u>accelerating national capabilities</u>

- There is the need to kick-start a thriving national data economy across several key industries, whereby interrelation generates sinergies

- Thus, Digital Public Goods foster interoperability, and produce generalized and re-usable benefits

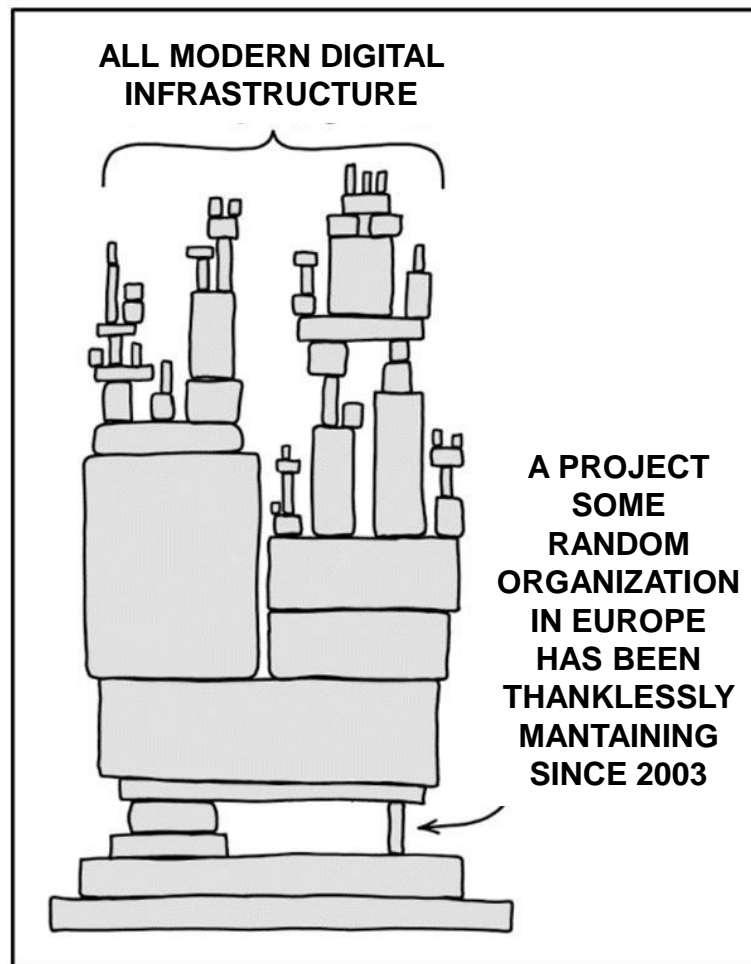- Infrastructure Goods beyond technical: methodologies, models, best practices, …

Infrastructure in terms of Digital Public Goods

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Digital technologies=
Tools, systems,
resources that generate,
store or process data
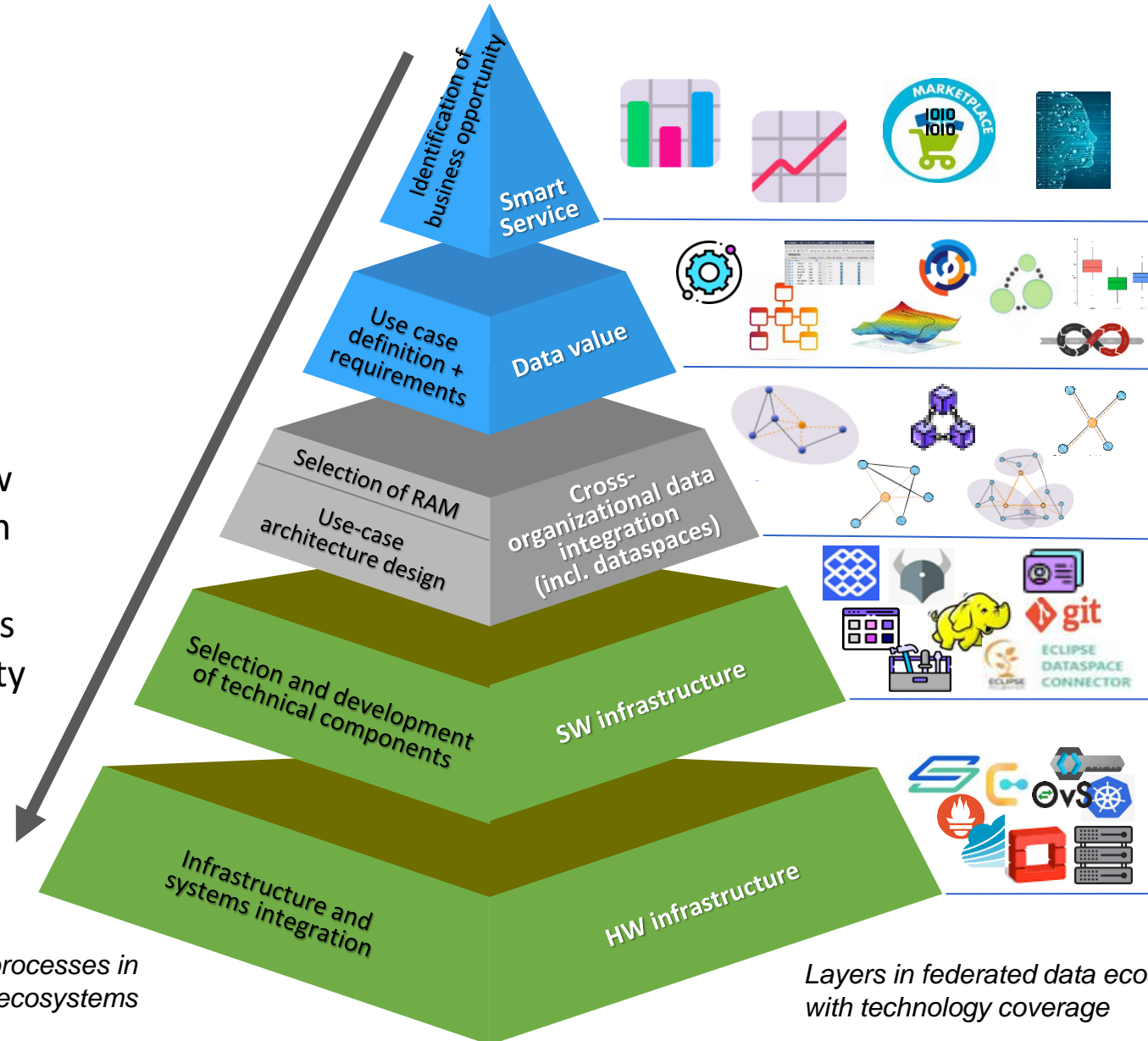
Digital   Public Goods

A commodity or service that is
provided sans profit to all
members of a society, for the
benefit or well-being of the
general public

ALL MODERN DIGITAL
INFRASTRUCTURE

A PROJECT
SOME
RANDOM
ORGANIZATION
IN EUROPE
HAS BEEN
THANKLESSLY
MANTAINING
SINCE 2003

Thus, Digital Public Goods
help develop a **Digital
Infrastructure** to makes us
more resilient, prosperous
and better connected.

https://digitalpublicgoods.net/digital-public-goods/

Governance Model and Gov's Role

- Aligning with the voice of the industry, and prioritizing the right investments

- Seeking harmonized implementations

- Promoting a Governance Framework that supports new models for digital cooperation

- SW & HW Digital Public Goods provide a means to re-usability and lowering entry-barriers

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DOMAINS

- Business and data-modelling
- Data-sharing
- IT systems

Identification of business opportunity — **Smart Service**

Use case definition + requirements — **Data value**

Selection of RAM
Use-case architecture design — **Cross-organizational data integration (incl. dataspaces)**

Selection and development of technical components — **SW infrastructure**

Infrastructure and systems integration — **HW infrastructure**

Development & processes in federated data ecosystems

Layers in federated data ecosystems, with technology coverage

What Digital Public Goods make sense for data spaces?

InfraTech & Community Building:

- <u>Cross-sectoral infrastructure & code</u>: Architectural models, building blocks, components as-a-Service, experimentation and lab capabilities, …

- <u>Service Catalog</u>: Datasets, computing, analytics, AI, BI, … (akin to market push from the 'Offer side')

- <u>Business analyses</u>: As-is/To-be, gap detection, barriers & opportunities, SWOT and risk matrix, digital and data maturity models and tools, …

- <u>Collaborative environments</u>: Whiteboards, Working Groups, IDEs, …

- <u>Knowledge management</u>: Technical guides, FAQs, industry reports, common repositories, wikis and best practices, …

- <u>Heuristics & Community</u>: References, discussion forums, project radars, …

THANK YOU

oficina.dato@economia.gob.es

https://oficinadato.gob.es