

# A data space for the construction ecosystem for a low carbon strategy on territories and cities





# **DIGITAL-TER 2050**

### MISSION and PURPOSE

### DIGITAL-ter 2050

- A commitment to succeed in the carbon neutrality for the territory
  - ➤ digital twin technology for managing during the full life cycle of the assets the environmental foot print of the territory based on the single source of information
  - **>** with sobriety of the digital infrastructure :
    - > including a sustainable transaction process
    - > in the process to store the information including sovereignity on the data
  - in compliance to the European policy on data with the GAIA-X standards

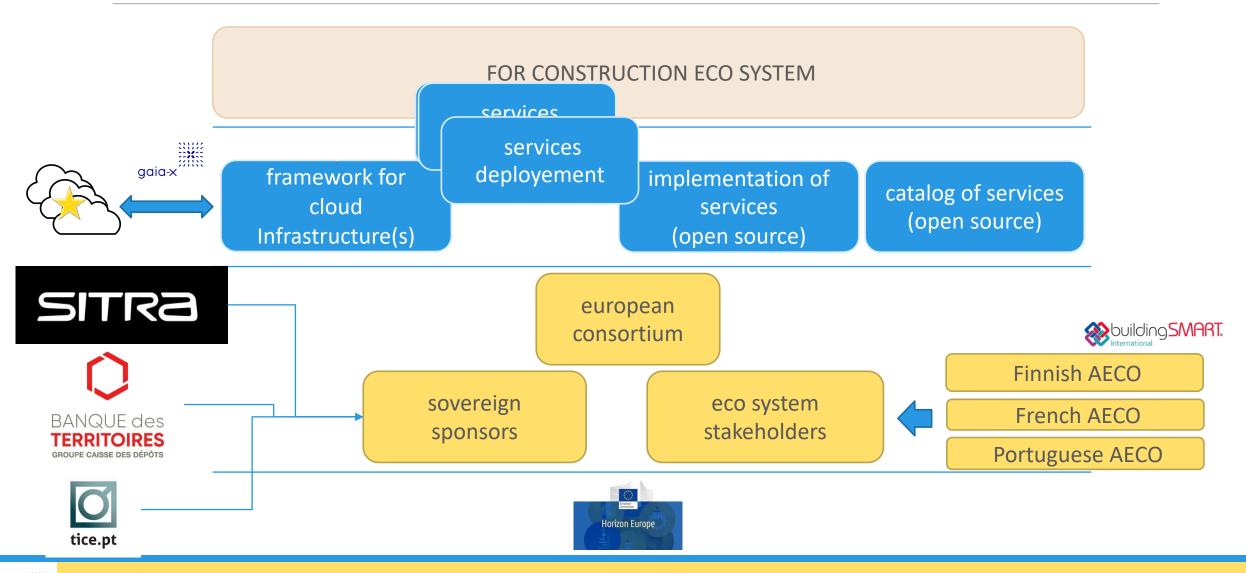


- A project to develop A European framework for data space
  - based on the construction eco-system requirements, including:
    - Local governments such as cities or counties.
    - Architectural, engineering and construction (AEC) companies.
    - Operators providing services such as transportation, energy supply, telecommunication, or waste collection services



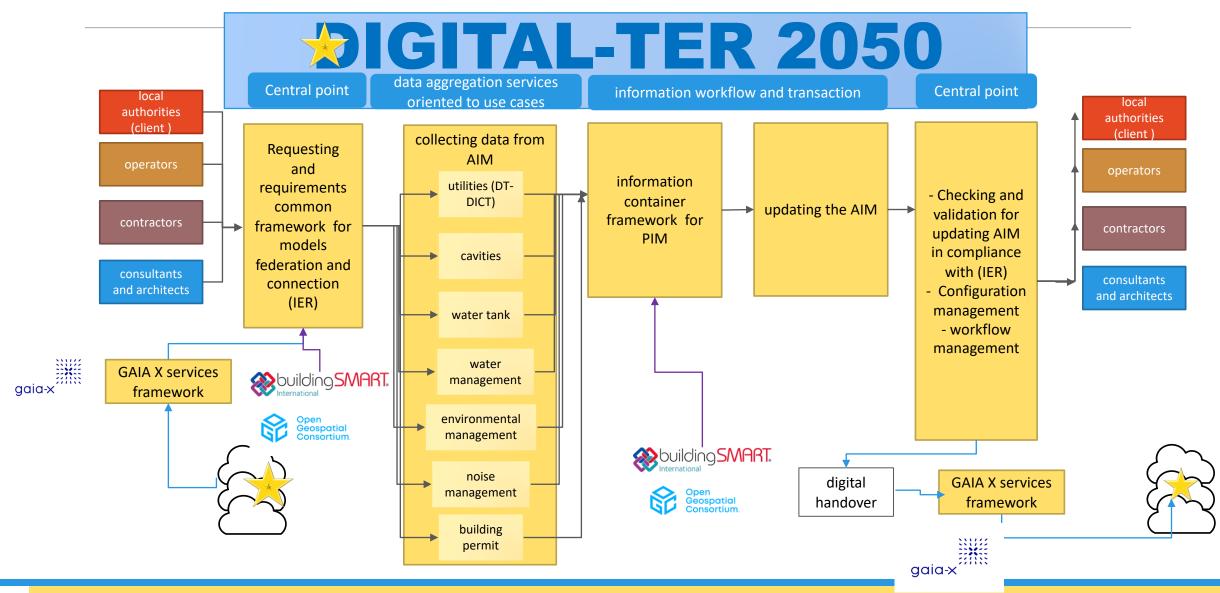


### Lighthouse DIGITAL-TER 2050: EUROPEAN CONSORTIUM

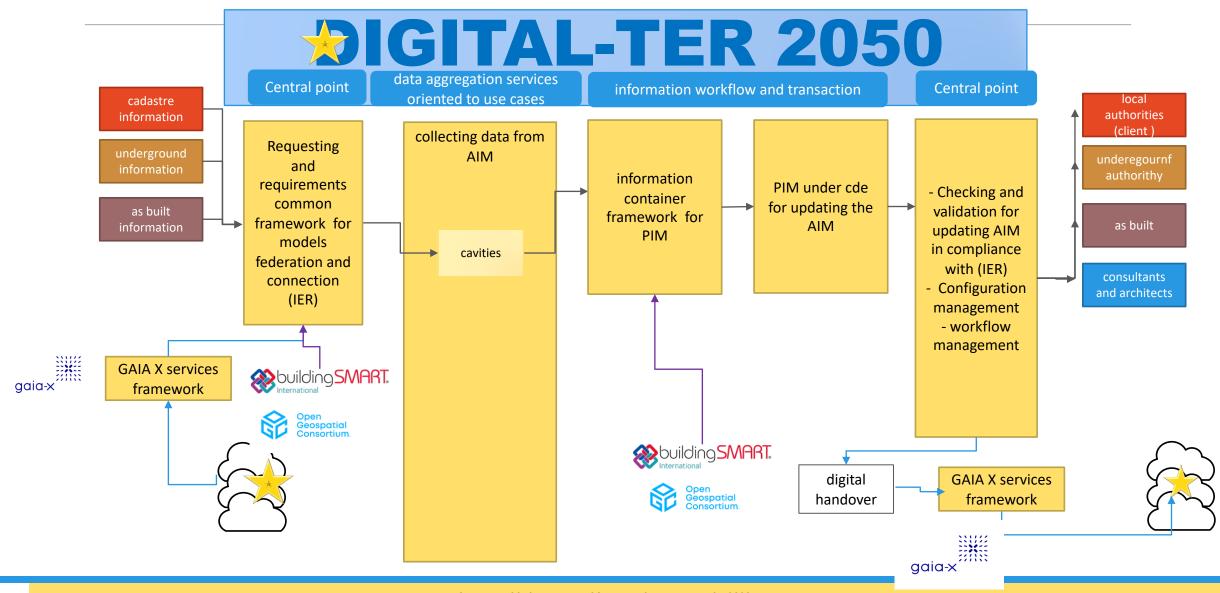




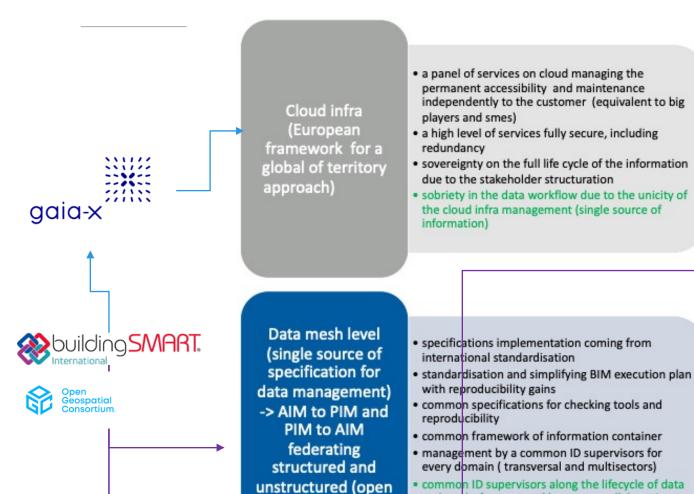
## Generic usages



## Generic usages



# DIGITAL-TER 2050: GAIN for all on 4 targets



and big) data

Aggregating appropriate data dedicated for use cases

- a common framework for an holistic view of the territory
- a common methodology for a dynamical view of the territory under IOT standardisation
- framework for sobriety management of the digital continuity based on European requirements
- a common framework for managing models federation (connection)
- a common framework for predictive management of works performance

Data sharing of statical and dynamical digital twin under CDE approach (SO 19650) for contract and services management -> PIM management

- · open CDE (as services)
- a common framework for modelling collaborative data (contract's metadata)
- framework of common rules for project monitoring and handover
- a framework for common rules of requirements and performances managements (based on ID properties management)
- framework of common collaborative services specification under opensource approach and based on standards (to be independent of any software vendors)

and works for trust and long term collaboration

### next steps



- Developing the GAIA X lighthouse project
- > Encouraging new countries to participate to DIGITAL-TER 2050
- > Encouraging synergies

The railway industry

The nuclear industry

The mobility sector

- > building the confidence on the business model based on:
  - > neutrality
  - > mutualisation of investments

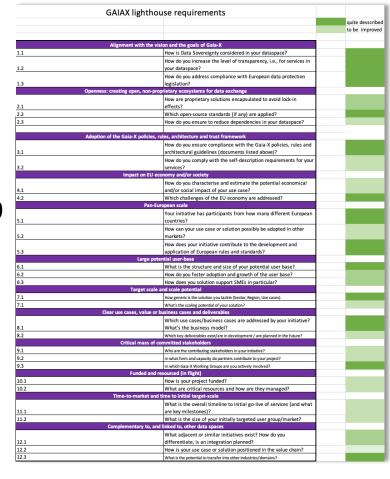
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Thank you for sharing this.

I read the project description and it seems well structured and strongly aligned to the architecture and principles of Gaia-X. I wander whether you have already had submitted it as a potential Gaia-X LHP (Lightouse Project), as the domain of engineering and constructions is not covered yet by any LHP.

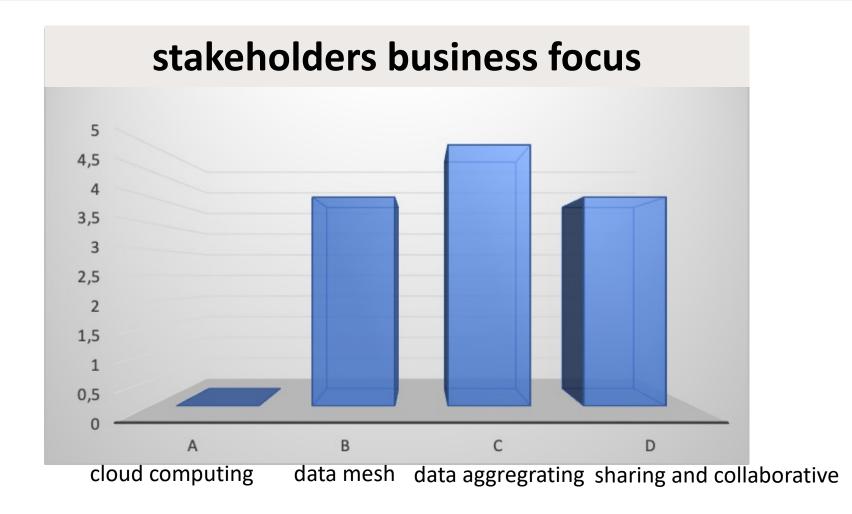
In this sense I'm happy to connect you to Thomas Hahn, lead of the DSBC (Data Space Business Committee) that inside the AISBL is in charge to endorse LHP. Also attached please find the LHP criteria that we use to evaluate a new candidate. Finally I ask Alessandra to reach out to you to support in the process and I look forward having your project part of the exclusive club of LHP.



It goes without saying that being a LHP has some pre-requirements, in particular the alignment to Gaia-X and the business purpose of the project, but also the membership of the project participants (and if not all, at least of the key ones with the commitment to onboard the others), but also we expect contribution to the development of the Gaia-X framework from the LHP and we'll verify their progress and alignment to the LHP principles on a yearly basis to maintain the LHP status.

What we give back is multiple benefit: a front line visibility through our membership, the possibility to expand your participants interested in onboarding in your projects, the presence in all our communication channels, initiatives and events, a special channel to submit requirements to evolve Gaia-X in line with your needs, the participation in the activities of coordination and exchange across the LHPs to share experiences, lessons learnt and much more.

# domain of expertise



# how to progress (based on opensource approach)

Gaia-X aims at building a trusted, sovereign digital infrastructure for Europe

FiWare community for services on data exchange based on use cases

gaia-x'

### Creation of digital infrastructures and an ecosystem for innovation

Trusted environment between partners and interoperable links between smart service applications and infrastructure services.

Increasing transparency and attractiveness of digital services

Reduce barriers to compliant service usage; enable the development of new services and products.

Streng busing society

Lata Ecosystem

Data Sovereignty Services

Porta

Federated Catalogue

Infrastructure Ecosystem

Reduited the post of the post

DAWEX for Gaiax digital clear house including provider

#### Data sovereignty

Strengthen the digital sovereignty of business, science, government and society.

#### Reduction of dependencies

Reduce private and business consumers' dependency of single providers; control over location and regulatory environment of stored data; reduce sector-specific dependencies.

	GAIAX lighthouse requirements	
	σ	quite desscribed
		to be improved
	Alignment with the vision and the goals of Gaia-X	
1.1	How is Data Sovereignty considered in your dataspace?	
	How do you increase the level of transparency, i.e., for services in	
1.2	your dataspace?	
	How do you address compliance with European data protection	
1.3	legislation?	
Opennes	s: creating open, non-proprietary ecosystems for data exchange	
	How are proprietary solutions encapsulated to avoid lock-in	
2.1	effects?	
2.2	Which open-source standards (if any) are applied?	
2.3	How do you ensure to reduce dependencies in your dataspace?	
Adoption	n of the Gaia-X policies, rules, architecture and trust framework	
	How do you ensure compliance with the Gaia-X policies, rules and	
3.1	architectural guidelines (documents listed above)?	
	How do you comply with the self-description requirements for your	
3.2	services?	
	Impact on EU economy and/or society	
	How do you characterise and estimate the potential economical	
4.1	and/or social impact of your use case?	
4.2	Which challenges of the EU economy are addressed?	
	Pan-European scale	
	Your initiative has participants from how many different European	
5.1	countries?	
	How can your use case or solution possibly be adopted in other	
5.2	markets?	
	How does your initiative contribute to the development and	
5.3	application of European rules and standards?	
	Large potential user-base	
6.1	What is the structure and size of your potential user base?	
6.2	How do you foster adoption and growth of the user base?	
6.3	How does you solution support SMEs in particular?	
	Target scale and scale potential	
7.1	How generic is the solution you tackle (Sector, Region, Use cases).	
7.1	What's the scaling potential of your solution?	
	clear use cases, value or business cases and deliverables	
	Which use cases/business cases are addressed by your initiative?	
8.1	What's the business model?	
8.2	Which key deliverables exist/are in development / are planned in the future?	
	Critical mass of committed stakeholders	
9.1	Who are the contributing stakeholders in your initiative?	
9.2	In what form and capacity do partners contribute to your project?	
9.3	In which Gaia-X Working Groups are you actively involved?	
	Funded and resourced (in flight)	
10.1	How is your project funded?	
10.2	What are critical resources and how are they managed?	
	Time-to-market and time to initial target-scale	
	What is the overall timeline to initial go-live of services (and what	
11.1	are key milestones)?	
11.2	What is the size of your initially targeted user group/market?	
	Complementary to, and linked to, other data spaces	
	What adjacent or similar initiatives exist? How do you	
12.1	differentiate, is an integration planned?	
12.2	How is your use case or solution positioned in the value chain?	
12.3	What is the potential to transfer into other industries/domains?	



# Synergies in progress

- workshop with local authorities:
  - agreed with Lille Metropole , Rennes Metropole and Region centre in France
  - North state in Portugal
  - finnish hub on smartcities



# Encouraging new countries and stakeholders

Encouraging new countries and stakeholders:

- netherland : bSI and TNO in progress

- Italy: bSI and others

- sweeden: bSI and Traficverket

