



Project Presentation

Orchestrating an interoperable sovereign federated Multi-vector
Energy data space built on open standards and ready for GAia-X

Agenda

1. Project in a nutshell
2. Partnership
3. Objectives
4. Relevance
5. Use Cases
6. Time Plan
7. Technical Activities
8. Interoperability



omega-x

START
05/2022



FUNDING
8M€

END
04/2025



LEADPARTNER
Atos

PARTNERS
30

OMEGA-X

Service Marketplace

Data Marketplace

Fede

rated

Infr.



4 Business Use case families

10 pilot sites. 7 countries
25+ services (10+ new)
18 Service providers
17 Data providers

40+ datasets, 50GB average

Quantifiable improvements in all 4 UC families (decarbonization, efficiency, Renewable penetration, engagement)

Full Interoperability, new governance models, new services, new business models, industry and cross-industry alliances.

Safe data trading, break data siloes, lower costs of data usage, increase data availability

29 Partners - 11 EU Countries

bloX.move

EDF

ENGIE
Institut Mines-Télécom

Odit-e
Gireve

edp

M111
UNIVERSIDADE
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PORTUGUESA

Atos
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UPC
meteo
FOR ENERGY

elia group
Elia | SOHarty | EGI
OPEN & AGILE SMART CITIES

NORCE

AARHUS UNIVERSITY

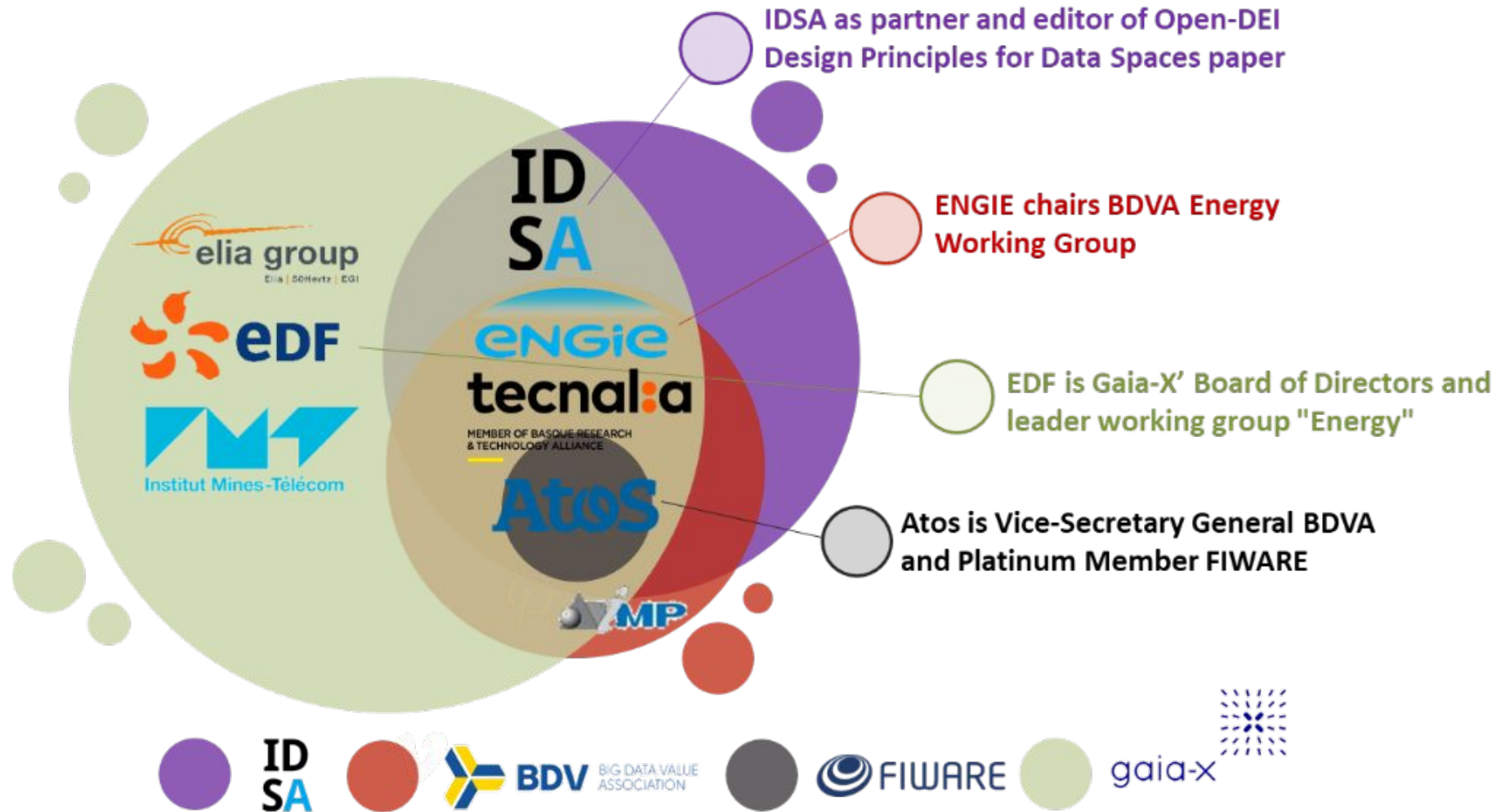
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INTRACOM
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RINA

#	Name	KPI #1	KPI #2	KPI #3
1	Standard Architecture	4 EU Initiatives	Liaise >3 projects	
2	Data Marketplace	3-5 Data Providers / UCF	Collaboration with sister projects	
3	Service Marketplace	4-5 Service Providers / UCF	Collaboration with sister projects	25 services with 10 new
4	Data Governance Models	2 Models	Tested in at least 1 UCF	E2E data security and governance in all UCs
5	Demonstration	7 stakeholders in different locations / UCF	Guarantee of data availability/quality	Demonstrated value of data sharing
6	Data Space Interoperability	Vertical interoperability (semantic)	Horizontal interoperability (other DS/Projects)	Open Source, standard protocols and APIs
7	Multi-vector Approach	5 different Energy Vectors	Electricity and Mobility	
8	Iteration and Cooperation	Three cycles	Continuous feedback loop	
9	User Centricity	Alignment with BRIDGE	Pilot level handbook	





RENEWABLES

3 pilot sites, 2 countries (Spain, France)
7 partners involved (3 data owners, 4 service providers)
Intra-pilot: O&M and smart grid data-driven services
Inter-pilot: Benchmarking and synthetic data generation



LOCAL ENERGY COMMUNITIES

4 pilot sites, 3 countries (Spain, Italy, Serbia)
9 partners involved (5 data owners, 5 service providers)
Intra-pilot: multi-vector optimization/planning, engagement
Inter-pilot: Benchmarking



ELECTROMOBILITY

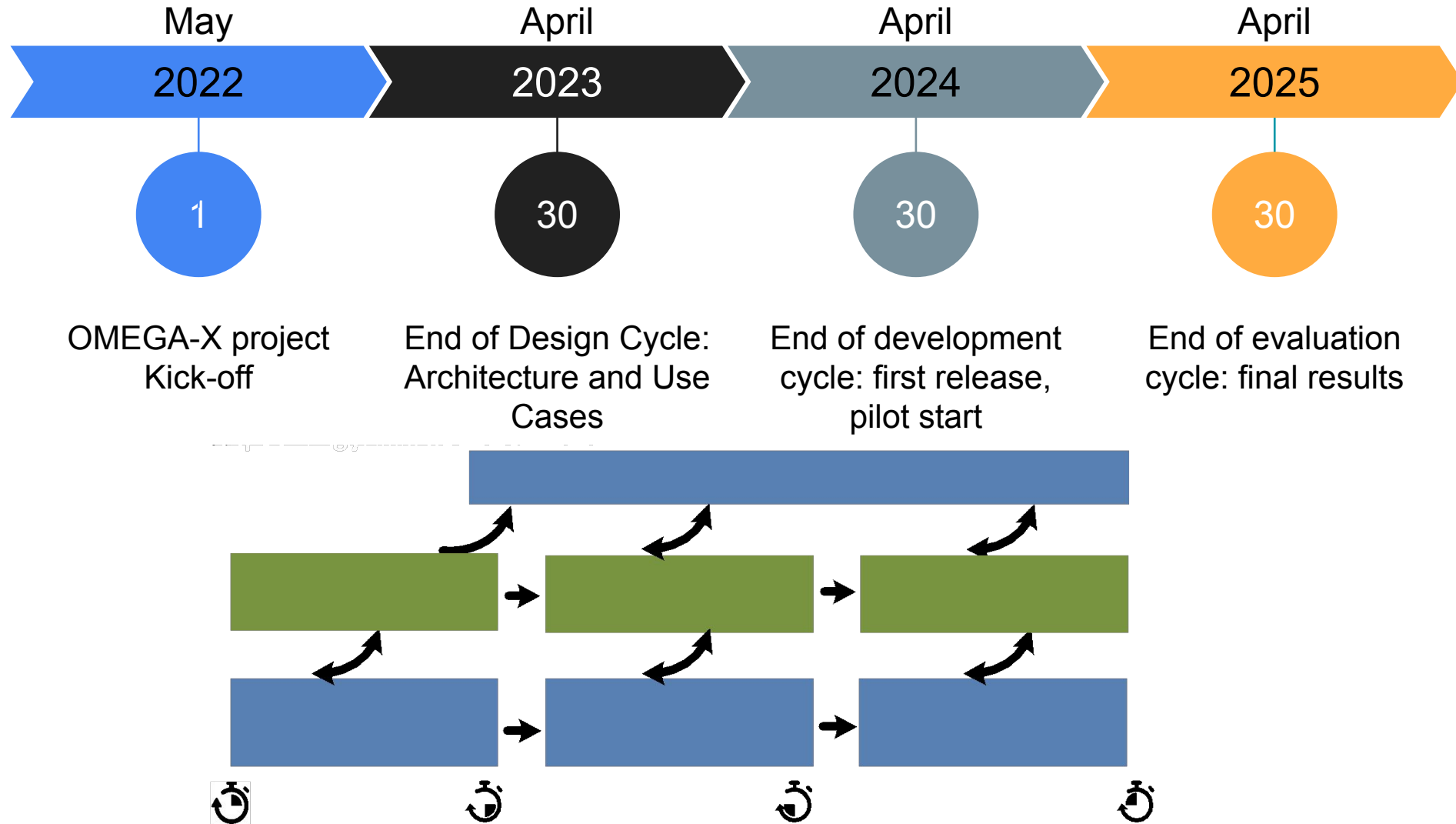
2 pilot sites, 2 countries (Germany, Belgium)
8 partners involved (4 data owners, 5 service providers)
Intra-pilot: Roaming of booking and self-consumption
Inter-pilot: TSO-DSO collaboration

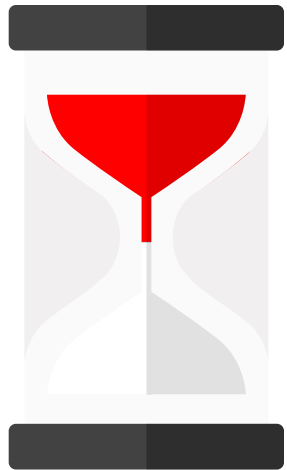


FLEXIBILITY

1 pilot site, 1 country (Portugal)
7 partners involved (5 data owners, 4 service providers)
Intra-pilot: Advanced data-driven flexibility



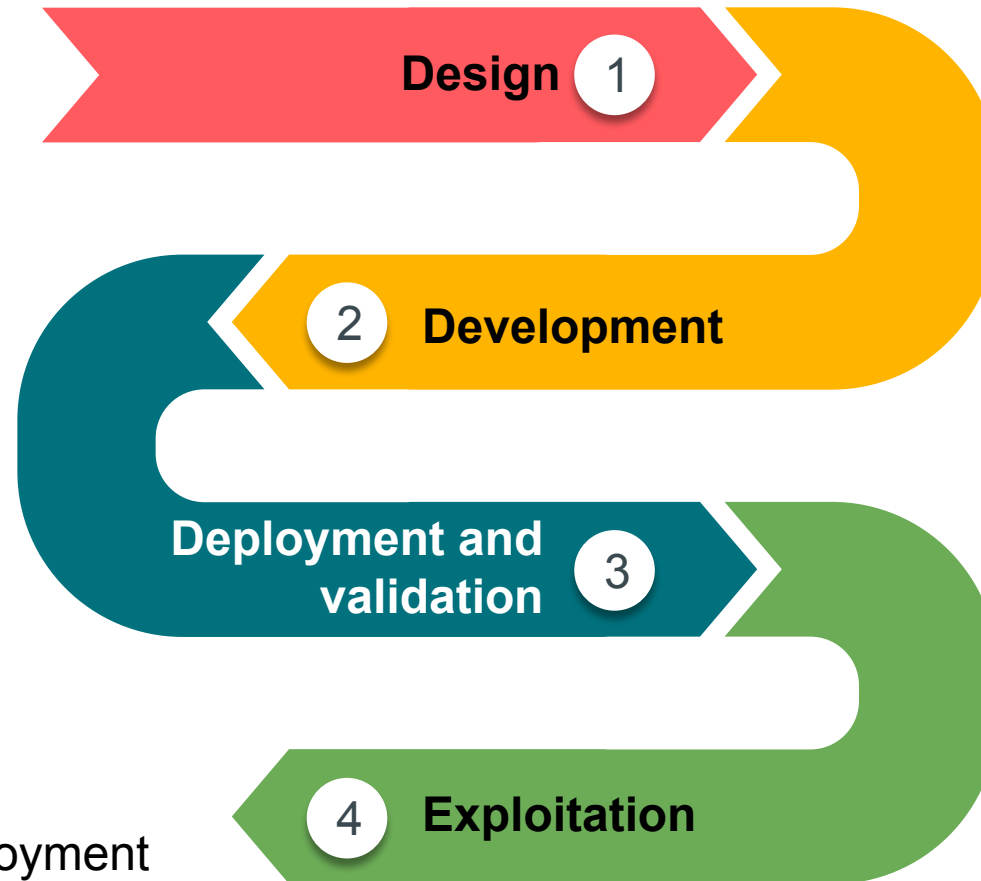




- ☐ Use Cases
- ☐ Architecture
- ☐ Specifications



- ☐ Pilot site deployment
- ☐ Validation



- ☐ Component development
- ☐ Integration



- ☐ Performance
- ☐ Impact assessment

Vertical Interoperability:

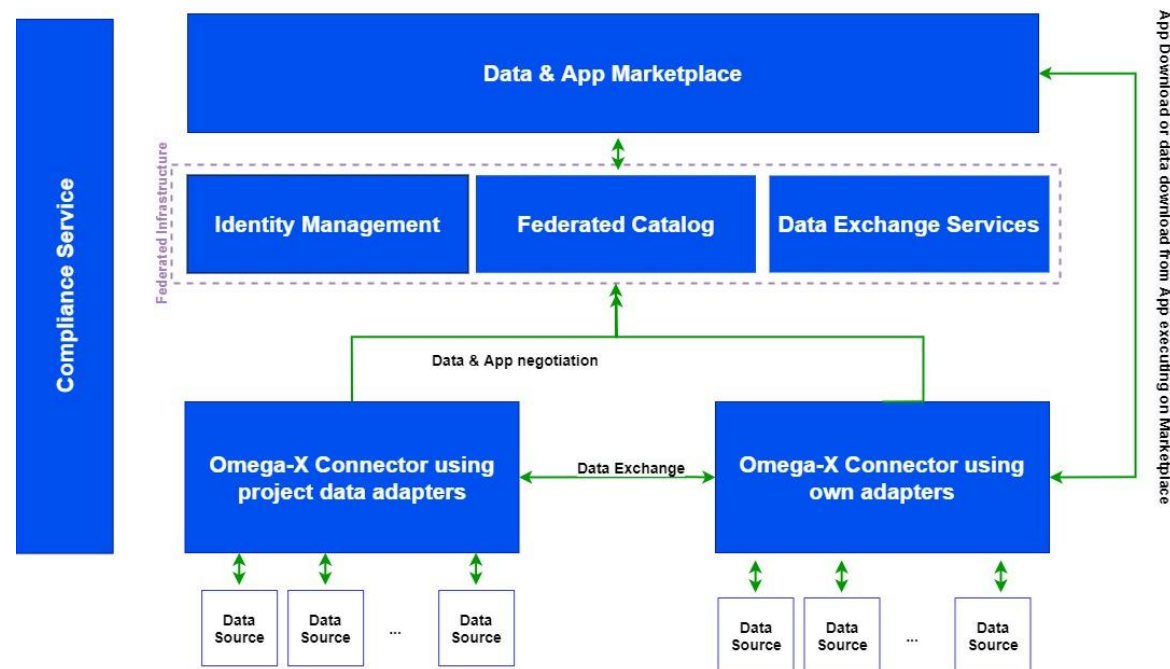
- Open definition of protocols and standards
- Alignment with IDSA/Gaia-X federation services (GXFS) and roles

Horizontal Interoperability

- Open Source Standardized protocols and APIs
- Information Models based on standards such as IEC CIM, IEC 61850 and IEC COSEM

Use case Interoperability

- Multiple stakeholders (both for data provision and service provision)
- Multiple locations (at least 2 per use case family)
- Interaction with sister projects



Thank you!

Keep up with

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