

Energy Data Spaces Cluster Meeting Project Pitch

13 September 2023, CINEA, Brussels
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WP2 Lead – Use Case Requirements



Enershare has received funding from [European Union's Horizon Europe Research and Innovation programme](#) under the Grant Agreement No 101069831

Project Pitch



Enershare

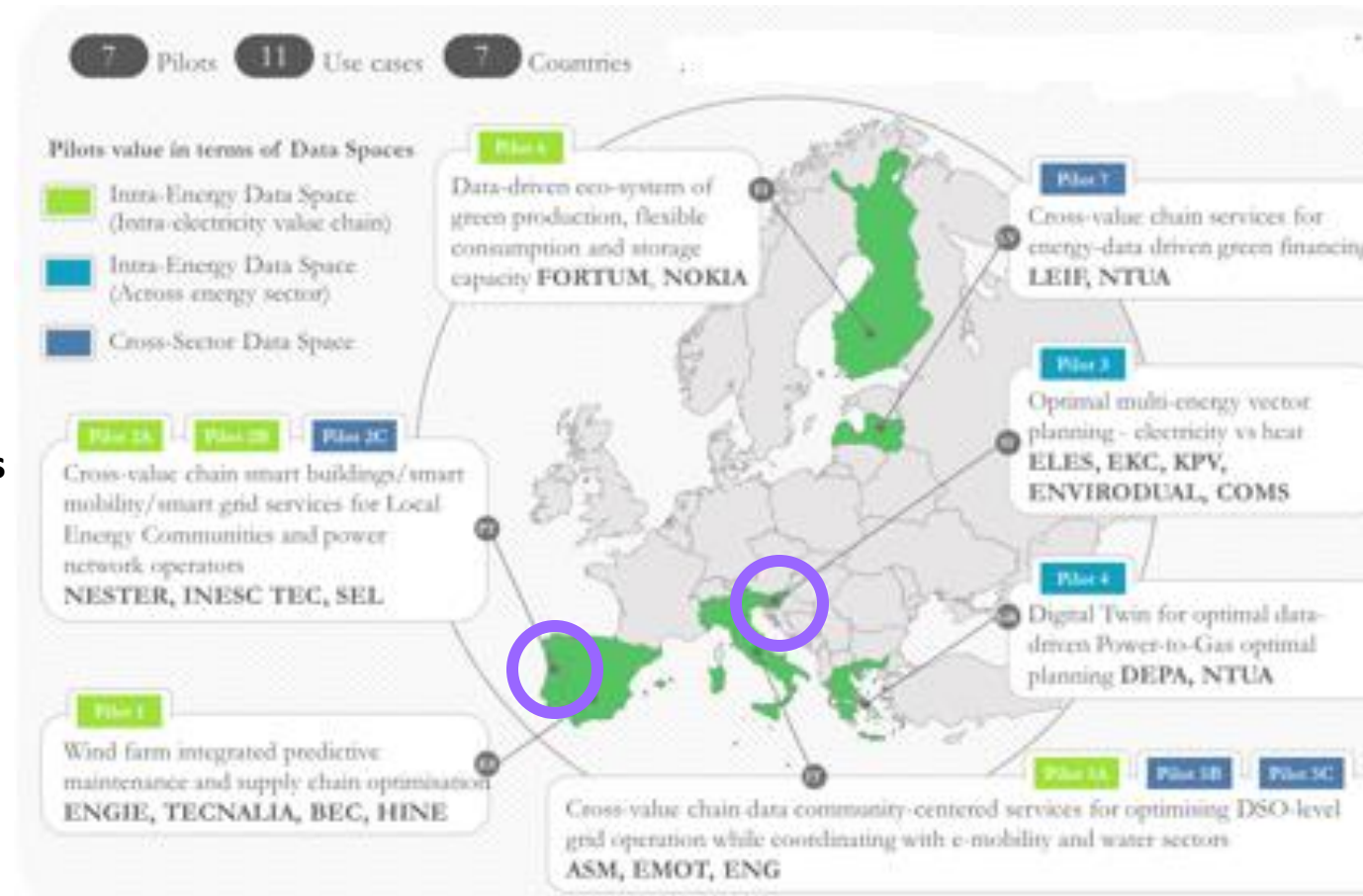
The Energy Data Space for Europe

enershare.eu



7 Large Scale Pilots, across 7 countries

- The overall ENERSHARE framework will be applied, implemented, demonstrated, and validated in
 - 7 real-life pilots,
 - 12 use cases,
- Intra- and inter Energy Data space:
→ e.g. Use Case 2a – Leveraging on consumer-level load data to improve TSO's operational and planning procedures
- Cross-Sector Data Space
→ e.g. Use Case 5b – Services for e-mobility CPOs, EVs drivers and DSO



Why cross domain interoperability is needed

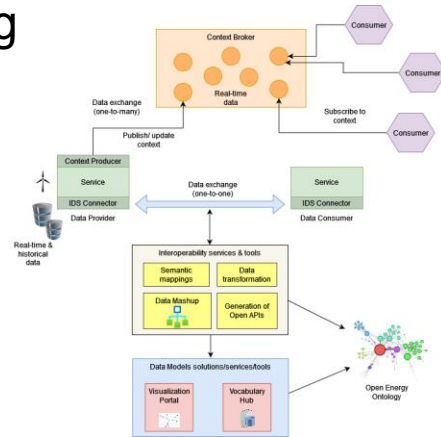
Information Category	P1-ES	P2-PT-A	P2-PT-B	P2-PT-C	P2-PT-D	P3-SI	P4-GR	P5-IT-A	P5-IT-B	P5-IT-C	P6-SE	P7-LV	Total
Electricity Consumption		3	1	4	2	1	3	3	7	1	1	2	28
Consumer Data		2	12	5				1	2			4	26
E Mobility									16		3		19
Building Data			3									14	17
Economic Data	2		9		3				1	1		1	17
Flexibility		3	3			3				2			11
Generation asset data	4		1			1		1				2	9
other data			1			1	5						7
Environment			1	2		1						2	6
Grid Data						1	1	3			1		6
Natural Gas		1					2						3

Use Case requirements

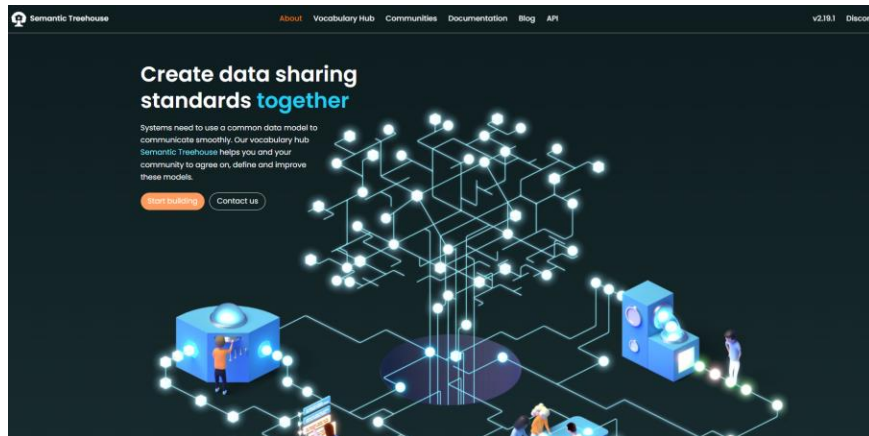
			Scenario																						
Category	Name	No of Use Case Scenarios with need for Building Block	P1-ES	P2-PT-A-1	P2-PT-A-2	P2-PT-A-3	P2-PT-A-4	P2-PT-B-1	P2-PT-B-2	P2-PT-B-3	P2-PT-C	P2-PT-D	P3-SI-1	P3-SI-2	P4-GR	P5-IT-A	P5-IT-B-1	P5-IT-B-2	P5-IT-B-3	P5-IT-B-4	P5-IT-C-1	P5-IT-C-2	P7-LV-1	P7-LV-2	P7-LV-3
Technical	Data Models and Formats	22	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Technical	Data Exchange APIs	22	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Technical	Identity Management	21	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Technical	Trusted Exchange	21	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Technical	Access and Usage control / Policies	16			1	1	1	1	1	1	1	1				1	1	1	1	1		1	1	1	
Technical	Metadata and Discovery Protocol	16		1	1		1	1	1	1		1	1			1	1	1	1	1		1	1	1	
Technical	Data Processing	15	1	1				1	1	1	1	1	1	1			1				1	1	1	1	1
Technical	Publication and Marketplace Services	13		1	1		1	1	1	1		1							1	1	1	1	1	1	
Technical	System Adaptation	9	1								1	1				1	1	1	1			1	1		
Technical	Provenance and traceability	7						1	1	1	1					1			1		1				
Technical	Data Visualisation	5	1												1	1						1			1
Technical	Data Analytics Engine	4	1	1									1		1										
Technical	Data Routing and Preprocessing	3							1	1	1					1	1					1			
Technical	Workflow Management Engine	3						1	1	1															
Technical	Data Usage Accounting	1										1													
Organisational / Operational	Domain Data Standard	17	1	1	1		1	1	1	1	1		1		1	1		1			1	1	1	1	1
Organisational / Operational	Unique Identifiers	2																1		1					
Organisational / Operational	Authorisation Registry	0																							
Organisational / Operational	Trusted parties	0																							
Governance	Data Space Boards	23	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Governance	Overarching cooperation agreement	23	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Governance	Continuity Model	23	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Governance	Regulations	11		1				1	1	1	1	1				1			1				1	1	1
Business	Service Level Agreement	8						1	1	1	1					1	1					1		1	
Business	Accounting Scheme	1																		1					
Business	Billing / Charging Scheme	1																		1					
Business	Smart Contract	1																	1						

Technical developments

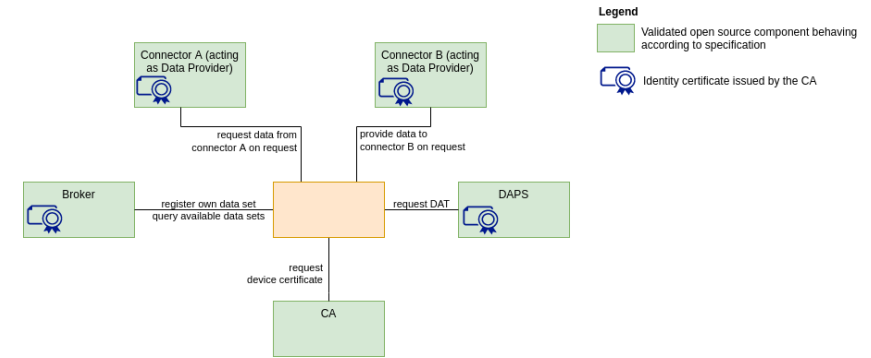
Semantic modelling



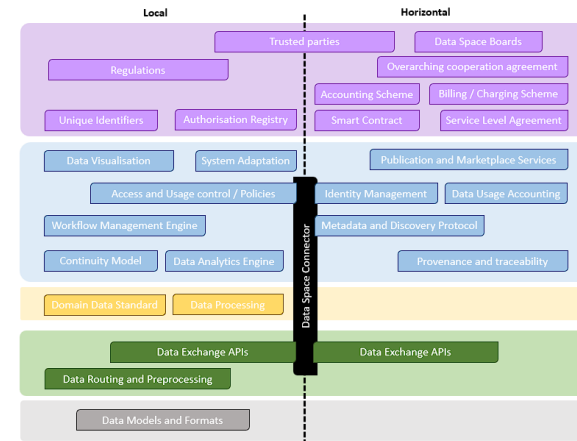
Vocabulary Hub



Minimum Viable Data Space (in alpha-release)



Architecture (work in progress)



Take home messages

- Use Case
 - Enershare has a diverse set of use cases with focus on inter-energy and cross-sectoral use cases
 - Metering data is relevant for very large share of use cases
 - requirements show strong focus on data exchange related building blocks
 - Business case related building blocks are not (yet) in focus)
- Technical development and implementation
 - Work on semantic modelling has progressed, vocabulary hub is available online
 - TSG, TRUE and onenet-Konnektor under special consideration
 - Release of a minimum viable Enershare data space is planned for the alpha release



Let's build Data Spaces!

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