

DATA CELLAR- Energy Data Spaces Projects Cluster

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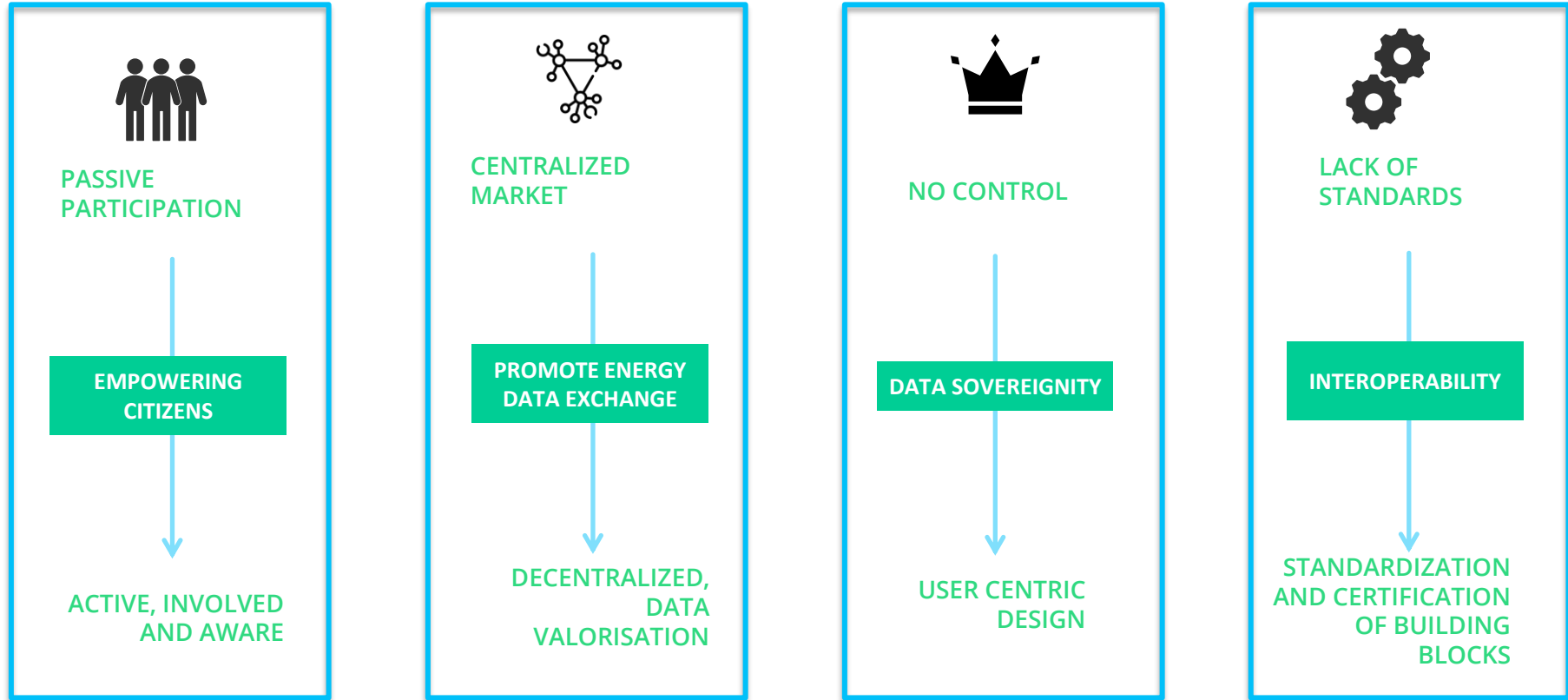


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DATA CELLAR

DATA CELLAR – Why



DATA CELLAR– Data hub for the Creation of Energy communities at Local Level and to Advance Research on them

SITUATION:

- Energy Communities as Core Driver of EU Green Strategy
- Multiple energy-data platforms (data sharing limited/restricted)
- Dispersed data from IoT/field devices from energy resources, with users unmotivated to share data

We need to be compliant with European Strategy for Data by creating a **single Data market!**

SOLUTION:

DATA CELLAR Federated Energy Data Space:

- Based on an open and interoperable cloud-to-edge data exchange architecture
- DLT-driven Marketplace to engage users and extract value of data and pre-trained AI models
- Future-proof, through the alignment with current/future EU data space initiatives

-> Support the Creation, Development and Management of Local Energy Communities (LEC) in EU

DATA CELLAR aims to create an **Energy Data Space** that will **support the creation, development and management of Local Energy Communities (LEC)** in the EU. The data space population will be facilitated via an **innovative rewarded private metering approach**, with a focus on an easy onboarding and interaction, guaranteeing a **smooth integration with other EU energy data spaces**, providing to LEC stakeholders services and tools for developing their activities.

15 Countries

Spain	Noway
Portugal	Switzerland
France	England
Belgium	Bulgaria
Netherlands	Austria
Italy	Germany
Ireland	Cyprus
Greece	

31 Partners

DATA CELLAR – Project Overview and Scope

DATA CELLAR will develop a dynamic, interoperable energy-oriented data platform to support the creation and operation of Energy Communities

MAIN OBJECTIVES



Development, validation and demonstration of a **dynamic data hub**



Implement **privacy** and **cybersecurity-by-design**



Deliver **data-driven energy services** to support the energy **transition**



Create a **DLT-based open marketplace**



Evaluate **novel business models** and collaborate with **EU relevant initiatives**

Project Validation Cases

9

Demo sites

AEM
Associação de Empresas e Municípios

Capriasca, Switzerland
14 Buildings
Massagno, Switzerland
8 Buildings
Energy consumption
Planning & Optimization
Recruitment and
Engagement

iren
irene
irene

Chamois, Italy
4 Buildings
Torino, Italy
5 Buildings
Energy consumption Planning
& Optimization

EDG WEST

Sofia, Bulgaria
12 Buildings
Energy consumption
Planning & Optimization

Fuinneamh
Oileáin Árann
Aran Islands Energy

Aran Islands, Ireland
100 Buildings
Energy independence
100% Renewable

CTIC
EAEN

LES Bimenes, Spain
38 Buildings
Energy consumption
Optimization

EUNICE
ENERGY GROUP

Attiki, Greece
20 Buildings
Energy consumption
Planning &
Optimization
Knowledge sharing

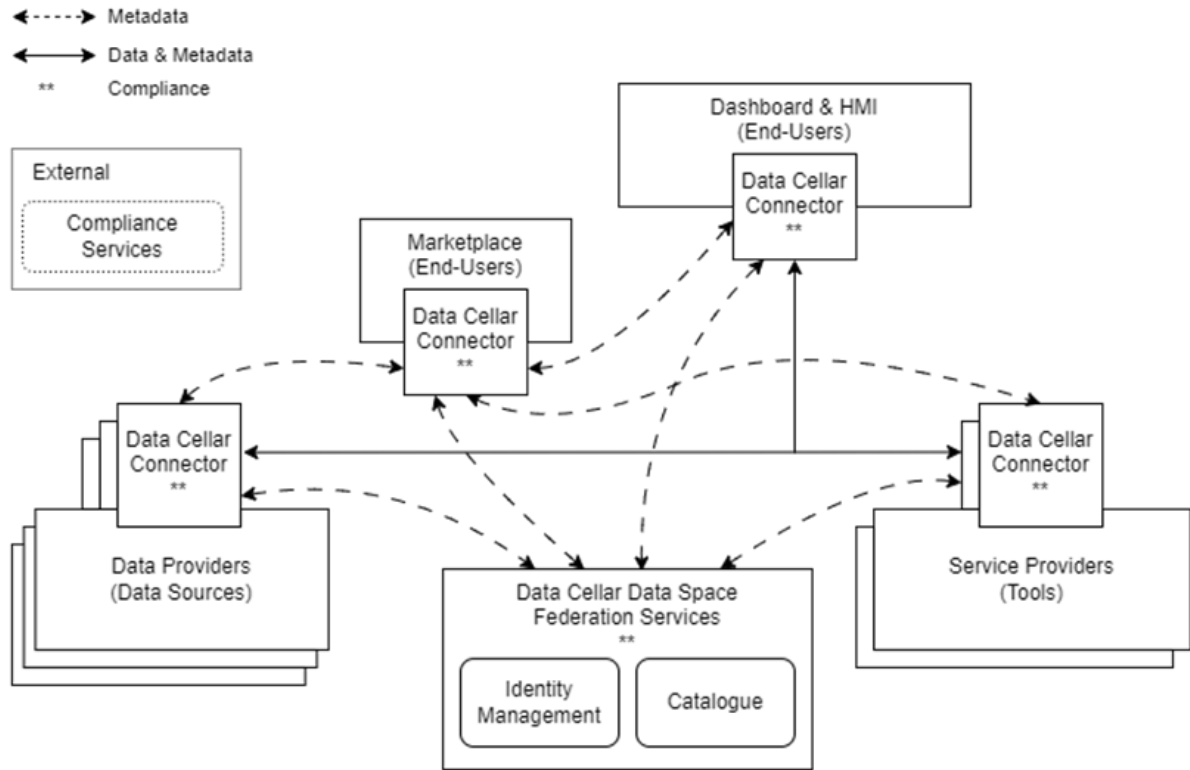
AMBIENTE
CASCAIS
NEW edp

Cascais, Portugal
14 Buildings
Digitalization of Energy
consumption
Knowledge sharing

RIA

DATA CELLAR

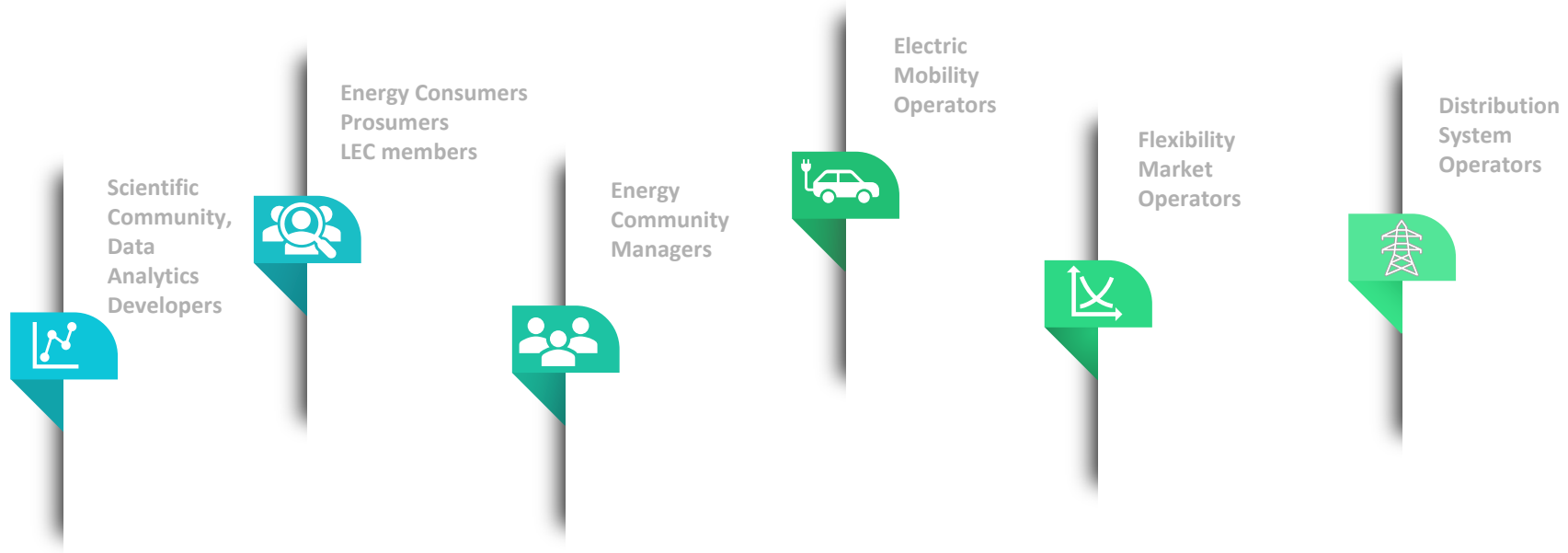
Overall reference Architecture Design



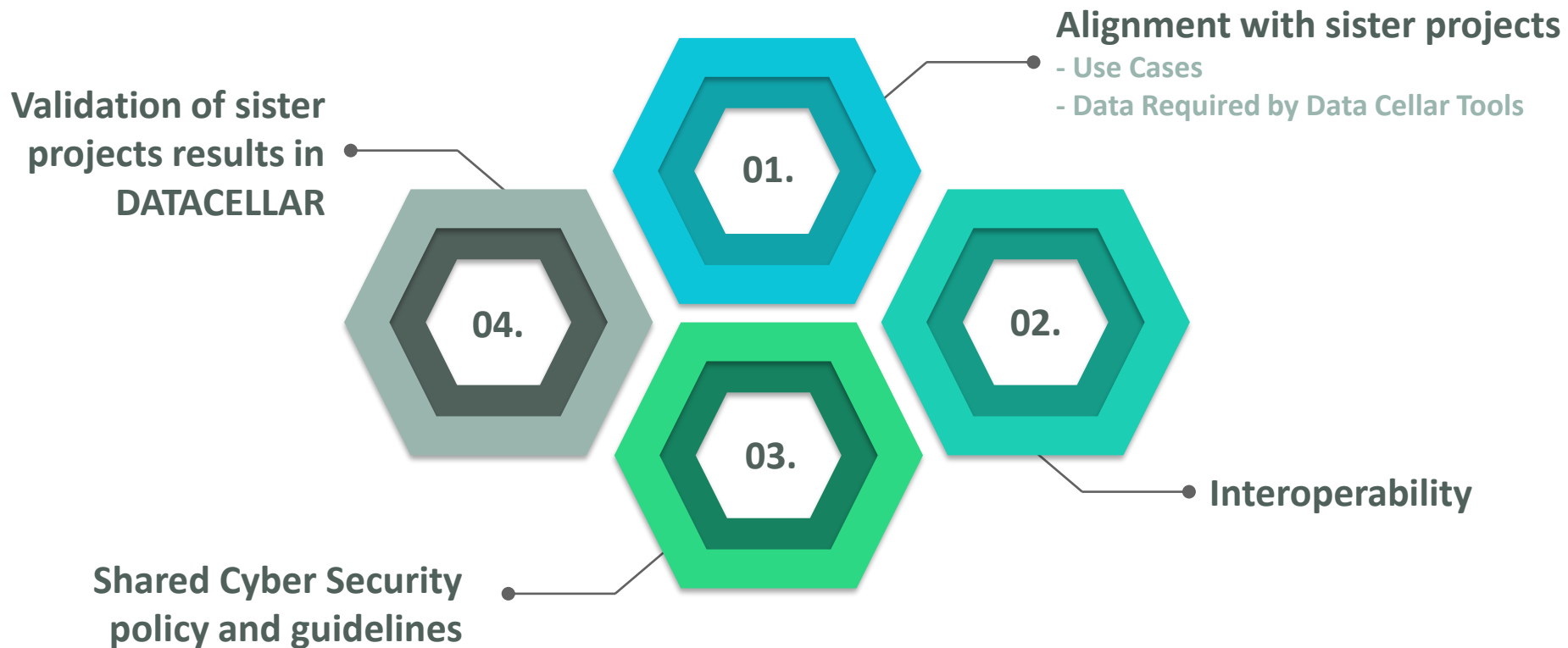
Contribution to the Common European Energy Data Space

- Compliance of DATA CELLAR with on one hand with Gaia-X and, on the other hand alignment with other Data Space projects for interoperability:
 - **Enabling interoperability** on key steps (e.g. use-case and system architecture definition, data model design to align semantic interoperability specs, interoperability testing & verification after implementation, data sharing during demonstration activities).
 - Selection of existing data models and ontologies upon common standards.
- Make **high quality data available and accessible** through standardized and interoperable common European data spaces to unleash the potential from data on realizing the European Green Deal

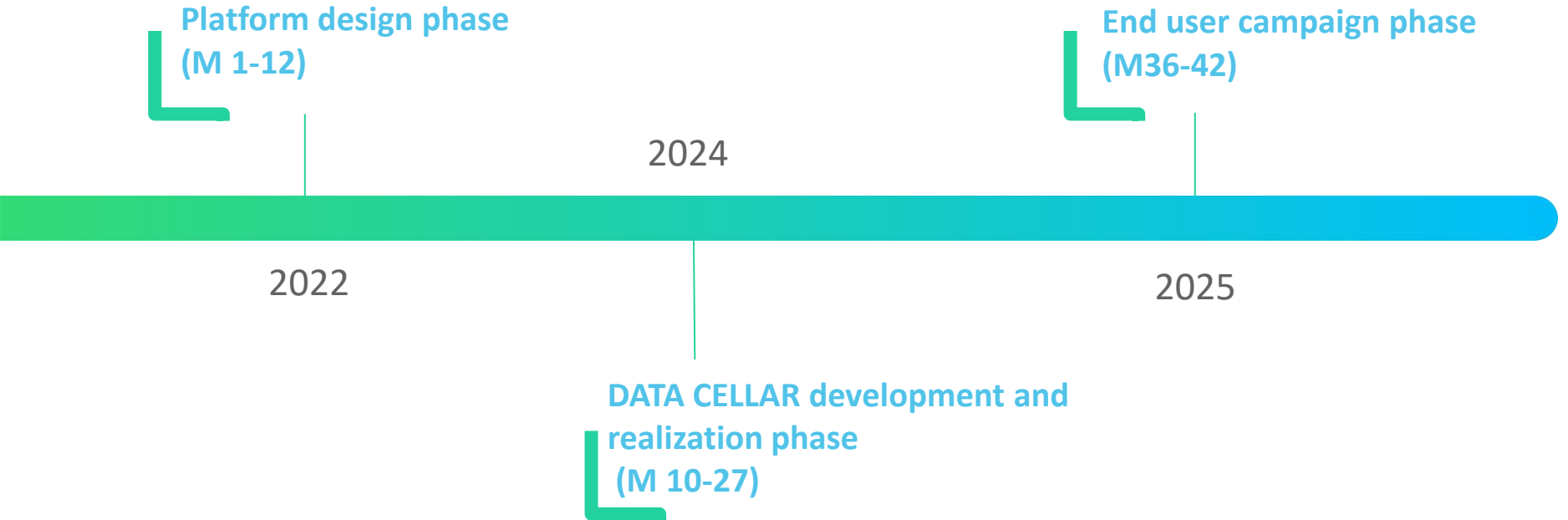
Classes of Use Cases per Beneficiary



European Energy Data Space – Next Steps



General time overview



Thank you for your attention!



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