



**ODEON Cloud-Edge
Data and Intelligence
Service Platform**



**ODEON
Catalogue
of AI Artefacts**



**ODEON
Energy Services
for DSOs**



**ODEON Energy
Services for
LECs/Aggregators**



**ODEON Energy
Services for
Prosumers**

Goals: Improving advanced data-driven and intelligence-powered services for grid resilience, through congestion identification, flexibility provision by prosumers, ancillary service delivery, and grid reinforcement for renewable energy and electric vehicle integration.

DENMARK

Island of Bornholm

IRELAND

Aran Islands

Goals: Utilising data and intelligence sharing for the realisation of advanced data-driven and intelligence-powered services for LEC self-consumption maximisation, energy management optimisation, and prosumer empowerment.

FRANCE

Hangest-en-Santerre

Goals: Delivery of data-driven and intelligence powered energy services for resilient grid operation through utilisation of flexibility offered by prosumers, energy system decarbonisation, green technologies, grid asset management, self-consumption maximisation, and bi-directional EV charging.

SPAIN

Granada

Goals: Facilitating data/intelligence sharing activities for the delivery of data-driven & intelligence-powered energy services for resilient grid operation through energy system decarbonisation, green technologies penetration, grid asset management and self-consumption maximisation.

GREECE

Mesogia

Goals: Improving advanced data-driven and intelligence-powered services for grid resilience, energy management optimisation and prosumer empowerment through involvement in flexibility markets.



federated data and intelligence
Orchestration & sharing for the
Digital Energy transition



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Innovations

ODEON offers a set of five innovations to transform the energy sector, including the implementation of Federated Data Spaces and the use of Artificial Intelligence (AI) to ensure the efficiency and resilience of the electrical grid for Distribution System Operators (DSOs). It also aims to support cost reduction and autonomy for Local Energy Communities (LECs), allowing energy transactions among prosumers through tailored markets.

Beneficiaries

✓ Distribution System Operators (DSOs)

✓ Energy Prosumers

✓ Local Energy Communities (LEC)

✓ European ICT/SME Ecosystem

✓ Energy Market and Policy Regulators

✓ Standardisation Bodies

✓ EU-wide Projects/Initiatives

✓ Energy Retailers, RES Operators, ESCOs, EV Fleet and Facility Managers

✓ Scientific Community

ODEON aims to revolutionise the Twin Green and Digital Energy Transition through the creation of an inclusive ecosystem of stakeholders characterized by the integration of a mesh of **Data, Intelligence, Service, and Market flows** in the energy system. ODEON enables the resilient operation of the energy system, considering **the increased integration of Renewable Energy Sources (RES)**, and the effective **orchestration of the flexibility from assets residing at the edges of the system (edge-computing)**.

Technology Innovation Goals



- ✓ Deliver transparent, accessible, and reliable technological framework for innovative energy services.
- ✓ Enhance distribution grid resilience and flexibility under high renewable energy penetration.
- ✓ Foster seamless data exchanges and integration across the energy ecosystem.
- ✓ Promote decentralised environment and service ecosystem for resilient grid management.
- ✓ Provide intelligence-driven energy solutions to support energy transition

Business Innovation and Market Uptake Goals



- ✓ Validate ODEON innovations in five large-scale demonstrators.
- ✓ Ensure multi-stakeholder value in real-life scenarios.
- ✓ Facilitate replication and market uptake of ODEON solutions.
- ✓ Promote ODEON as Cloud-Edge Data and Intelligence enabler for the Twin Green and Digital Transition.
- ✓ Transfer knowledge of the project's outcomes.

START DATE

JANUARY 2024

END DATE

DECEMBER 2027



34

Partners



13

EU Countries



05

Pilot Sites



05

Innovations

PROJECT COORDINATOR

etra|+D

PARTNERS:



www.odeonproject.eu ✉ info@odeonproject.eu

✉ @odeonEU in Company @odeoneu

📍 @ODEONproject