



Press Release

## ODEON Marks 18-Month Milestone with Major Advancements in Federated Energy Data and AI-Driven Energy Tools

19 June 2025 – Valencia (Spain)

Launched in January 2024, the ODEON project has now reached the 18-month mark, celebrating substantial progress in building the Federated Energy Data Space, developing a robust Cloud-Edge data platform, and delivering advanced AI-powered tools designed for Distribution System Operators (DSOs), prosumers, and Local Energy Communities (LECs).

One of the key achievements of the ODEON project to date is the development of the **ODEON Semantic Data Model**, which enables a unified, semantically consistent representation of data across the integrated energy system. This model is central to ensuring interoperability and cohesion in energy data exchange.

Progress has also been made on core components of the **Federated Data Space**, including the configuration of data collection processes and mechanisms to enable and streamline data processing from diverse sources — spanning Edge, Near-Edge, and centralized assets within the project's demonstrators. These developments encompass key functionalities such as **information mapping, anonymization, encryption, and data observability**.

ODEON integrates **AI-driven data intelligence** into its architecture, deploying cutting-edge technologies to enhance data accessibility, security, and operational efficiency. Through federated learning, AI orchestration, and secure multi-party computation, the platform empowers organizations to leverage AI in distributed environments while maintaining data privacy.

For energy stakeholders, the ODEON project is developing modular **AI-enhanced services to support Local Energy Communities (LECs) and prosumers** in efficient energy management. These services cover areas such as smart control, demand response, local energy trading, user engagement, and investment planning at both the household and community levels.

In parallel, ODEON is reimagining **smart grid operations** by introducing AI-powered innovations for DSOs. These solutions aim to boost grid flexibility,

predictive maintenance, and intelligent network management, establishing new benchmarks for sustainability, efficiency, and adaptability in grid operations.

As part of its commitment to real-world implementation, the project is launching advanced pilot sites across multiple locations (Spain, Greece, France, Denmark and Ireland). These pilots will test the technical feasibility, cost-efficiency, and performance of **ODEON's solutions under realistic operating conditions**. The project is currently finalizing a detailed site planning and risk management strategy to ensure smooth execution in the next development phase.

ODEON has also made significant progress in **consumer and stakeholder engagement**, holding two **Living Lab workshops**: one in the Aran Islands (Ireland, October 2024) and another in Amiens (France, June 2025). These Living Labs not only fostered prosumer engagement but also introduced key stakeholders to ODEON's technical innovations.

To ensure the long-term impact of its work, the project has developed the first version of a comprehensive **exploitation strategy**. This roadmap focuses on the commercialization and market adoption of ODEON's technological breakthroughs, paving the way for sustained innovation beyond the project's lifecycle

### **About ODEON project**

ODEON, funded by the Horizon Europe Programme, is driving the resilient transformation of Europe's energy system by supporting greater integration of Renewable Energy Sources (RES) and enabling the smart orchestration of flexibility from distributed assets at the grid edge. With a budget of €22.56 million over four years, the project marks a major step toward a sustainable, secure, and competitive energy future.

Coordinated by ETRA and bringing together 34 partners from 13 European countries, ODEON officially launched in January 2024 and will run through December 2027.

Website: [odeonproject.eu](https://odeonproject.eu)

LinkedIn: [linkedin.com/company/odeoneu](https://linkedin.com/company/odeoneu)

YouTube: [youtube.com/@ODEONproject](https://youtube.com/@ODEONproject)

X: [x.com/odeonEU](https://x.com/odeonEU)

### **For media inquiries and further information, please contact:**

Moisés Antón (ETRA)  
Project Coordinator  
[manton.etraid@grupoetra.com](mailto:manton.etraid@grupoetra.com)