



I-GRETA

Intelligent FIWARE-based generic energy storage services for environmentally responsible communities and cities.

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The goal of I-GReta is to develop solutions for planning and operation of highly flexible energy systems benefitting from storage capacities. These will be capable of integrating high shares of renewables in regional and local energy networks through integrated demand flexibility and forecasting on building level as well as large-scale optimization-based control of electrical, heating and cooling consumption.

The consortium intends to build a real-world digitalized and decentralized energy system. I-GReta will connect 5 trial sites in 4 countries via a professional ICT platform benefitting from FIWARE components. Occupants, owners and system operators as key need owners will participate and assess the operation of the respective systems in a Virtual Smart Grid (VSG) based on the platform. A key use case will be the trading of storage capacities via the platform. Individual storage solutions will additionally provide high value and immense impact potential in the local perspective.

Project Duration

01.01.2021 - 01.01.2024

Project Budget

Total Budget: € 3,071,950.-

Funding: € 2,294,950.-

Project Coordinator

RWTH Aachen

Prof. Antonello Monti (DE)

Project Partners

- FH JOANNEUM Kapfenberg (AU)
- Graz University of Technology (AU)
- dwh GmbH (AU)
- University of Graz (AU)
- CAMPUS 02 Fachhochschule der Wirtschaft GmbH (AU)
- EVON GmbH(AU)
- WEB Windenergie AG (AU)
- UNIVERSITY POLITEHNICA OF BUCHAREST (RO)
- SIV ELECTRO CONCEPT SRL (RO)
- GREENINITIATIVE (RO)
- Chalmers University of Technology (SE)
- Örebroporten Fastigheter AB (SE)
- Mercedes-Benz Energy GmbH (DE)
- RWTH Aachen (DE)

Project Website

www.i-greta.eu

Contact

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**ERA-Net
Smart Energy Systems
Joint Call 2019
(MIGCall19)**

This project has been awarded funding within the ERA-Net SES Joint Call 2019 for transnational research, development and demonstration projects. EUR 16.5 Mio of funding have been granted to 14 projects active in 15 regions and countries.

ERA-Net Smart Energy Systems



This project has received funding in the framework of the joint programming initiative ERA-Net Smart Energy Systems. The initiative has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreements no. 646039 and no. 755970.

Main Objectives

- Objective 1: Understand needs by different need owners and stakeholders.
- Objective 2: Support a secure and democratic energy supply as pillar of modern societies.
- Objective 3: Provide the technology to handle required data for the interaction of the different stakeholders and services.
- Objective 4: Demonstrate operational solution and derive impact-creating guidelines and business models.

Expected Key Results

Technology

- Analyze user needs and behavior
- Platform interconnecting multiple trial sites for flexibility exchange
- Modelling of thermal and electrical systems in the building context

Market

- Exchange flexibilities within energy communities
- Provide flexibilities to cloud based markets

Adoption

- Surveys with end users
- Implement trials with end users

Joint Programming for Flourishing Innovation – from Local and Regional Trials towards a Transnational Knowledge Community

www.eranet-smartenergysystems.eu



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