

The RESONANCE project is creating a software framework that enables rapid development and plug-and-play deployment of standard-compliant solutions for demand-side flexibility management

RESONANCE



Facilitating cost-efficient development of replicable & standard-compliant demand-side flexibility management solutions

The aim of the RESONANCE project is to make it more cost-efficient to harness flexibility from distributed and small-scale assets in homes, buildings, and places and thus help mobilise demand-side flexibility at a larger scale. To do so, the project is developing an innovative software framework that facilitates easy design and deployment of standard-compliant solutions for demand-side flexibility management, thereby reducing the workload and development costs.

The RESONANCE Framework provides three modular catalogues of software services for standard-compliant Resource Manager and Customer Energy Manager solutions as well as for Aggregation & Market Integration. Included are tools for configuring the services in a plug-and-play manner and for managing trust, security, and privacy aspects. A Data & Service Marketplace enables technology and service providers to advertise and explore the services, tools, and data assets.

resonance-project.eu





































RESONANCE project: Replicable and Efficient Solutions for Optimal Management of Cross-sector Energy.

Co-funded by the European Union's Horizon Europe Research and Innovation Programme under Grant Agreement No. 101096200. Project Coordinator: VTT Technical Research Centre of Finland Ltd.





Six pilot sites, several flexibility resources, various customer sectors

Pilot sites in six European countries develop and test the RESONANCE software catalogues and services.

The populated services are then replicated at other pilot sites with different stakeholders and constraints.

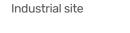
The sites include and combine several flexibility resources and solutions, across various customer and energy sectors, engaging a multitude of stakeholders and market settings in a cross-sector energy ecosystem.

Place

Helsinki & Oulu Apartment buildings

Supermarkets

La Motte-Servolex





Bavaria

Industrial, residential & commercial buildings

Demand-side flexibility for markets Cost-driven local optimisation

Local optimisation, cost-& environment-driven

Demand-side flexibility

Local optimisation, cost-

& environment-driven

for markets

optimisation

Cost-driven local

Ptolemaida

Municipality of Eordaia Public & private buildings and places

Slovenian regions

Celje and other Households

Mölndal & Gothenburg Single-family houses Commercial buildings

Objectives

Demand-side flexibility for markets Cost-driven local optimisation



Sectors















Resources

HVAC systems Heat pumps

District heating

PV systems

EV charging

PV systems

EV charging

HVAC systems Heat pumps

EV charging

PV systems

EVs





PV systems Heat pumps Batteries White goods

District heating



Local optimisation, cost-& environment-driven Demand-side flexibility for markets







PV systems Batteries EV charging Heat pumps **HVAC** systems District heating

- resonance-project.eu





