



Digitally **<empowering citizens>** to deliver the twin transition

< Consumers are facing many options in the energy transition of their homes, which can be difficult to navigate to select the best solutions due to its complexity and vast fragmentation >

At the same time service providers face substantial costs in tailoring their solutions due to a lack of essential household data.

DECOD/T brings together experts from across the building, energy, software and financial advisory sector to develop innovative data driven digital tools and services to support consumers in their decision making.

Through a user-friendly app, citizens receive personalised energy options tailored to their needs. An AI assistant ensures easy interaction for everyone, while participatory workshops and community engagement involve citizens as co-designers of services and practices.

The project also supports financing through innovative underwriting, helping consumers invest in home upgrades.

< In numbers >

18

participants

11

countries

4

pilots

16

innovations

€5.1
million

total budget

€4
million

Horizon Europe
contribution

42
months

duration

Buildings are
the **<largest
energy consumer>**
in Europe

< Goals and methodology >

Buildings are the largest energy consumer in Europe, accounting for 40% of the energy consumption and 36% of the greenhouse gas emissions.

DECODIT is working to create three sets of services, or 'toolboxes', for the app, with solutions that can be co-created with consumers and implemented individually and at a household or community level.

The 'Energy Management Toolbox' will include features such as recommendations and alerts, self-consumption optimisation and automated demand response.

The 'Renovation Support Toolbox' will include solutions for green home retrofitting, building operations and energy efficiency renovations.

The 'Financing Toolbox' will feature data-driven loan underwriting and project bundling to reduce costs for home upgrade financing.



The background of the top half of the page is a dark teal color with several overlapping circular and oval shapes. Inside these shapes are images of a city skyline at night, with buildings and streets illuminated. Overlaid on these images are glowing orange and yellow lines that represent a network or energy grid, connecting various points across the city.

These demonstrations will **engage actors** across the value chain

◀ Concept ▶

The project solutions will be demonstrated in residential energy communities in four European countries:

Greece

Latvia

Spain

Switzerland

They are very diverse in terms of building characteristics, social conventions and norms, cultural and regulatory frameworks, climate conditions, economic capabilities, etc.

Together these will include the supply of energy consumption information to households and

tools to manage it, demand response solutions and energy efficient renovations of old homes.

These demonstrations will engage actors across the value chain, including electricity suppliers, network operators and energy service companies alongside the respective communities.

By engaging citizens as co-designers in the design of new services and the adoption of new business models, DECOD/IT seeks to reshape the smart energy landscape for households and energy communities.

< Co-creation >

The European Union has identified co-creation and service design as vital approaches for involving citizens and stakeholders in the development of digital tools for the energy transition, making them central to the DECODIT project. Through five iterative co-creation cycles, involving consortium partners and Living Lab participants, the project applies service design workshops and participatory methods such as focus groups, household diaries, and community tours to explore household energy practices, user journeys, and pilot objectives while fostering collaboration and shared understanding. Structured around Negotiating, Staging, and Reframing phases, these cycles ensure continuous input from partners and participants, particularly in shaping the citizen-facing interfaces of the DECODIT tools, while situating design within the broader socio-cultural and economic contexts of energy use and home renovation. By combining co-creation and service design in an iterative process, DECODIT captures everyday experiences and future visions, generating insights that guide the development of meaningful, user-centered digital solutions.



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