

### Interoperable solutions for implementing holistic FLEXIbility services in the distribution GRID









The main goal of FLEXIGRID is to allow the distribution grid to operate in a secure and stable manner when a large share of variable generation electricity sources is connected to low and medium voltage grids.

To do so, FLEXIGRID proposes a three-level approach aiming at (1) Flexibility, (2) Reliability, and (3) Economic Efficiency through the development of innovative

hardware and software solutions.

These solutions will be demonstrated in four Demo-Sites across Europe ensuring their interoperability through its integration into an open source platform able to harmonize the data flow between FLEXIGRID solutions and the real grid.

#### SOLUTIONS, USE CASES AND DEMO SITES

Secondary substation of the future

Smart meters with feeder-mapping capabilities

Protections for hight RES penetration

Energy box

Software module for fault location and self-healing

Software module for forecasting and grid operation

Software module for congestion management

Virtual thermal energy storage model

Fuse Platform

## Secondary Substation upgrading for higher grid automation and control **S4** Protections functions operating with large RES share penetration in the distribution grid

# DEMO 2. GEECE

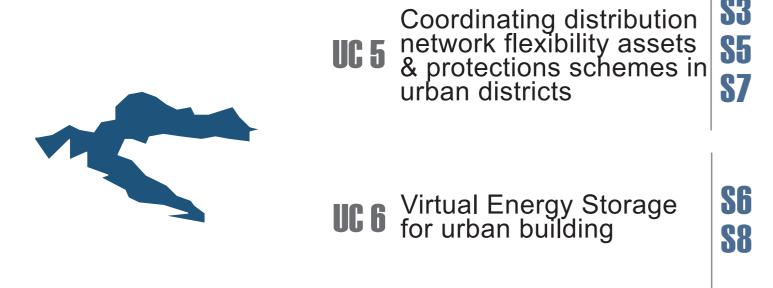
Holistic energy system optimization & emulation for commercial and residential customers Microgrid congestion management and peak shaving

**\$7** 

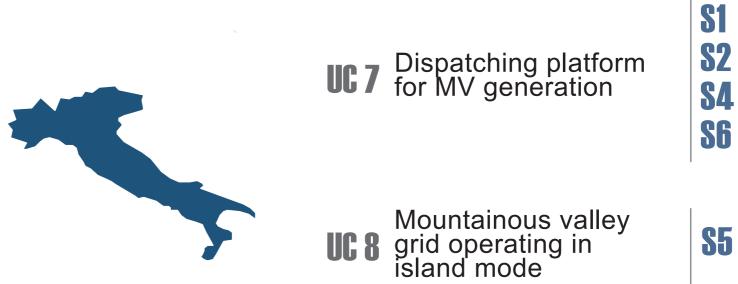
**\$4** 

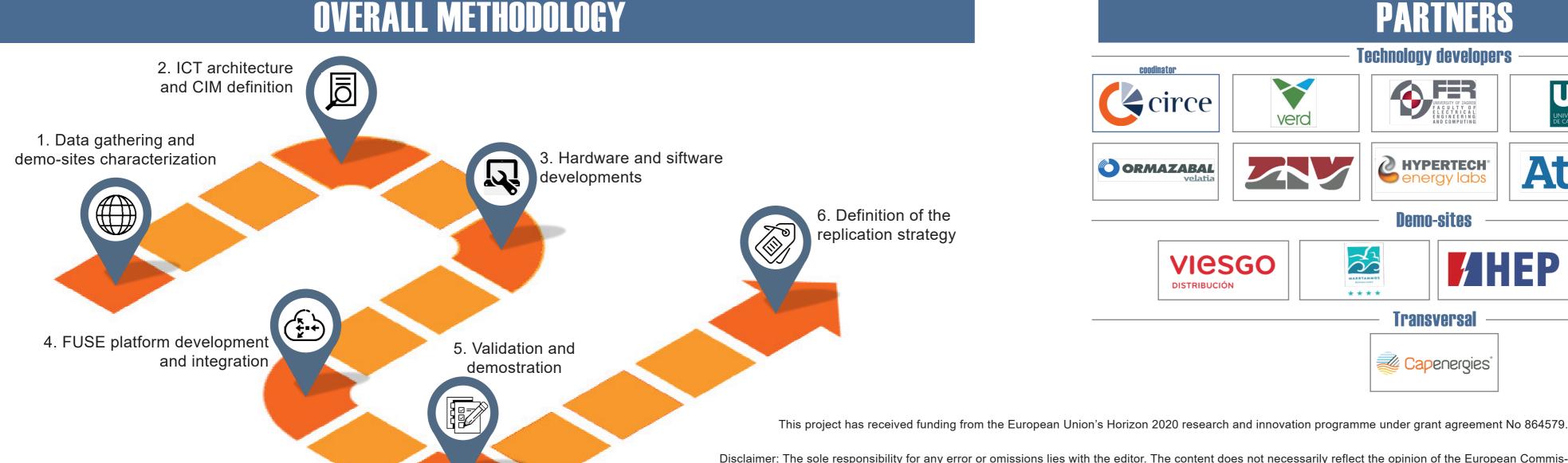
**S6** 

### DEMO 3. CROATIA



### DEMO 4. ITALY







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