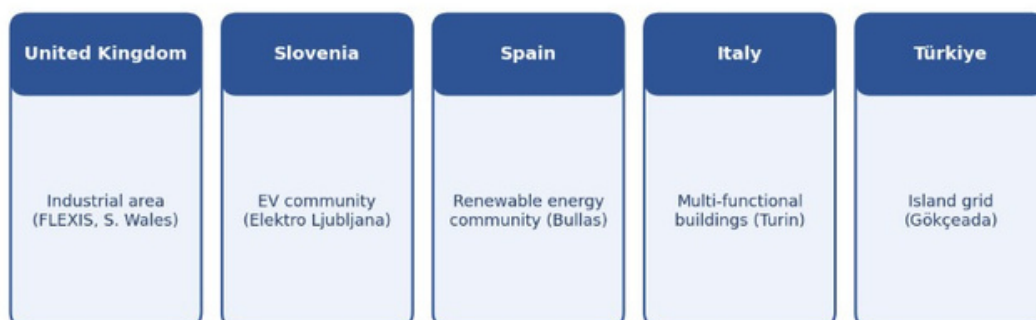


## Five places, one vision: A tour of the FlexCHESS pilot sites

### Five FlexCHESS pilot demonstrations across Europe



Different regulations, climates, assets and user behaviours — testing replicability and scalability

A good idea is only as strong as its proof in the real world. To show that its Virtual Energy Storage System concept works across very different conditions, FlexCHESS demonstrated its solutions at five pilot sites in five countries — each chosen to represent a distinct energy context. Together, they form a living test of the project's vision.

**United Kingdom — flexibility from an industrial landscape.** In South Wales, within the FLEXIS demonstration area, the project explored flexibility in a region rich in diverse generation and consumption — from renewable installations to large industrial sites. The pilot offered a real-life setting to test and validate the project's concepts and modelling tools, and to assess the economic benefits of a Virtual Energy Storage System.

**Slovenia — an electric-vehicle community.** Operated by the distribution system operator Elektro Ljubljana, this pilot aggregated electric-vehicle charging infrastructure and flexible grid nodes. By upgrading its control systems to connect with the FlexCHESS platform, it explored how flexibility can be delivered close to real time, serving the needs of the network and the wider energy market.

**Spain — a renewable energy community.** In the town of Bullas, in sunny Murcia, residential prosumers with solar generation, battery storage and heat pumps came together as a renewable energy community. Led by La Solar and MIWenergia, the pilot focused on



engaging citizens and validating the FlexCHESS solution in real homes, exploring the role of the community-level aggregator.

**Italy — flexibility from buildings in the city.** In Turin, IREN tested two contrasting assets: a multi-functional building with a centralised heat pump used for heating and cooling, and a facility with electric-vehicle chargers, a battery and a rooftop solar system. Both demonstrated how buildings can become sources of flexibility for the grid.

**Türkiye — strengthening an island grid.** On the island of Gökçeada, the distribution system operator UEDAS used a connected storage node — combining a battery, electric vehicles and controllable loads such as heat pumps — to improve the quality and stability of an island grid that relies on a submarine cable and local generation. Taken together, the five pilots are more than a set of trials; they are a deliberate map of Europe's diversity. By spanning industrial regions, energy communities, dense cities and remote islands, FlexCHESS gathered the evidence needed to show that its solutions can travel — and its findings are shared with peer projects through the European Commission's BRIDGE initiative to accelerate uptake across the continent.

Across all five, the common thread is clear: distributed resources, coordinated through an open platform, providing flexibility and value in the conditions where people actually live and work. The lessons learned at each site feed the project's assessment of how its solutions can be replicated and scaled across Europe.

#### References and further reading

- [FlexCHESS project — CORDIS, European Commission](#)
- [FlexCHESS project website](#)
- [BRIDGE initiative — European Commission](#)

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