## Our goals:

### Sustainable futures:
encouraging the implementation of Demand Response Solutions that allow consumers to lower or adjust their consumption to foster global energy savings.

### Place local communities at the center of energy markets:
a shift in the market is possible by enabling the energy trading flexibility by energy citizens.

### Transform roles in the industry:
new business models for local energy communities and retailers to overcome major market entry barriers for prosumers.

### Deliver an open and interoperable energy solution:
connecting smart grids, energy management systems and smart home devices to enable more sustainable, effective and efficient energy use.

### Provide a worldwide alternative for the energy system:
the adoption of the TwinERGY solution will be promoted to maximise the project's outcomes.

TWINERGY

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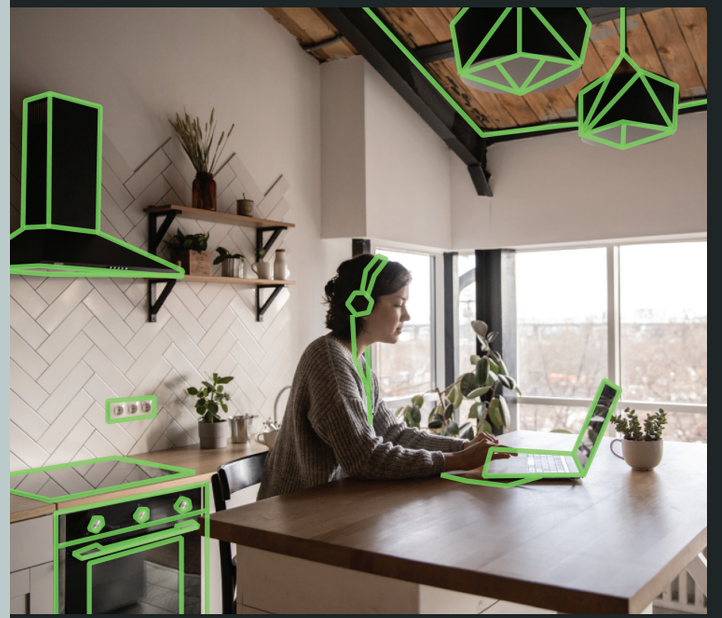
TWINERGY

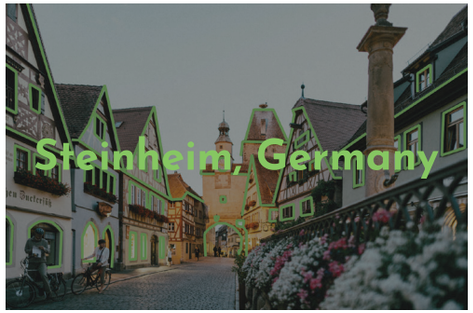


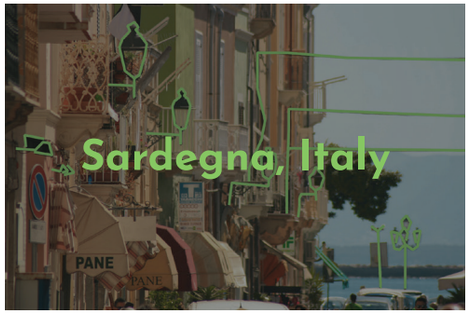
# Citizens at the heart of the energy market

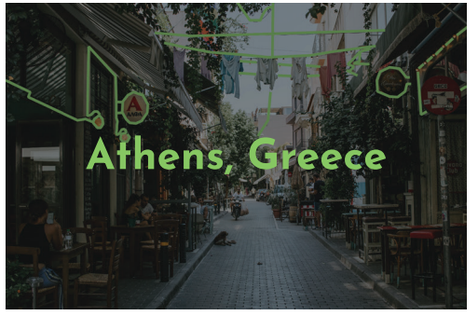
Twinergy has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 957736

TwinERGY incorporates Digital Twin intelligence for optimising demand response for residential buildings while having a positive impact on the well-being of consumers and on their ordinary activities.

## Four TwinERGY Demonstration Sites


## The TwinERGY project carries out nine use cases to prove that a greener, inclusive and more efficient energy system is possible:

- Maximize self-consumption and self-sufficiency in the Home Energy Management to reduce the energy cost to the end user, while ensuring comfort levels and security of supply.
- Increase the generation of Renewable Energy Sources in domestic and tertiary buildings to change the overall share of energy.
- Use electric vehicles as distributed energy storage tools for expanding grid capacity and exploring the possibilities of cooperative electromobility.
- Empower citizens to actively participate in local energy trading markets to sell their flexible energy loads and excess capacity through decentralized transactional platforms.
- Improve grid's flexibility and stability through optimal management of distributed energy resources.
- Develop different incentives to be provided to consumers to promote reduction or shift in electricity use.
- Explore socio-economic and cultural dimensions as drivers for energy behaviors in demand response programs.
- Use wearables devices to obtain the level of comfort of consumers and design personalized incentives to encourage changes in their energy behavior.
- Combine data from individual consumers to create a Digital Twin model of the community that allows to predict its capability and enhance its trading or selling power.