

### 3 Use Cases are validating the BRIGHT technologies

IoT-assisted energy management for Smart home individual households



Optimal control of legacy heating and DHW preparation boilers for residential gas consumers

Advanced user profiling to improve predictability of consumption and consumer behavior

#### What are consumers receiving?



Savings in electricity and natural gas bills, increased well-being, as well as reduction in C02 emissions

# About Us

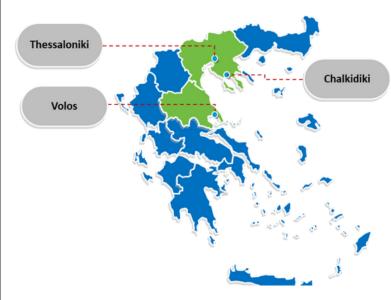
The BRIGHT framework is demonstrated in real-life conditions as its main mission focuses on the fulfillment of the actual needs and requirements of the tenants.

These pilot cases are located in Greece, Belgium, Italy and Slovenia.

All Privacy and GDPR legislations have been carefully followed to ensure the protection of the tenants' private information.

# **Greek pilot**

Virtual Community Centralized Aggregation and energy management services



# **100** engaged consumers: 50 electricity and 50 gas consumers

50 households equipped with advanced home ICT, metering, and automation tools

50 households equipped with smart automation controllers edge attached with legacy natural gas boilers

# Find out how **BRIGHT** can improve your house's energy efficiency



Visit our <u>website</u> Join our social media Check out upcoming events to participate

## **Contact Us**



info@brightproject.eu



https://www.brightproject.eu/

### **Our Project**

BRIGHT - Boosting DR through increased community-level consumer engaGement by combining Datadriven and blockcHain technology Tools with social science approaches and multivalue service design

The ambition of BRIGHT is to realize a multi-timescale DR1 strategy that works from a dayahead scheduling up to real-time adaptive control and allows individual assets to simultaneously provide power balancing service, grid congestion management, and economic benefits to participating stakeholders.

\*\*\* \* \* \*\*\* This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 957816

### Mission

A novel community-centred social, technological and business ecosystem is envisioned; it comprises:

i) social science user experience design for end user behaviour understanding and communitylevel beyond economic incentive;

ii) consumer and community digital twins2 by integrating data-driven consumer preferences and behaviour modelling with flexibility assets modelling to enable centralized virtual power plants (VPP)3 governance;

iii) distributed ledger4 /blockchain5 /smart contracts6 technology enablers aimed to implement peer-to-peer (P2P)7 trading/sharing mechanisms for supporting decentralized P2P VPP where self-organizing prosumers8 may exchange reciprocally information and spontaneously aggregate within dynamic coalitions, while taking explicit control of their flexibility assets, hence better trading off their preferences against grid stakeholders' requirements;

iv) cross-domain value stacking9 service design and innovative business modelling at the interplay among different energy carriers, different energy stakeholders, different domains.