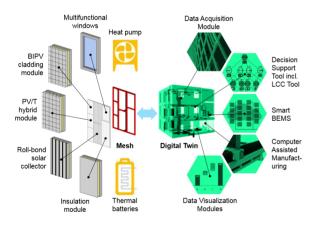
# **About ENSNARE**

ENSNARE focuses the developments on 2 main pillars:

- Envelope modular mesh, facilitating
  mechanical assembly and fast interconnection
  of all components and networks. This mesh
  allows the integration of the innovative
  building components that are being
  developed:
  - Industrialized modular façade panels.
     Aluminum technology.
  - Integrated renewable solar systems (BIPV, ST, PVT).
  - Smart multifunctional window
  - Heat pump coupled to PCM storage



- Digital platform supporting all stages of the renovation process and providing stakeholders with a clear framework. Specific solutions include:
  - Automated data acquisition tool
  - Early decision support tool
  - Smart BEMS
  - Digital Twin



# Who are we?

ENSNARE is an **Horizon 2020 EU** funded project carried out by 19 partners from 12 European countries: 11 SMEs, 5 institutes of research, 2 Corporation, 1 public body.









































# Why ENSNARE?

The building sector is one of the main contributors to GHG emissions, in fact 40% of the energy consumption in the EU is associated with building needs (heating, cooling and domestic hot water). In order to achieve 2050 decarbonisation goals, ENSNARE boosts the uptake of novel and highly efficient solutions for NZEB renovation via comprehensive methodology, tools and technologies that accelerate the current renovation rate.



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement **No 958445**.

# **PILOTS**



With the aim of validating the ENSNARE solution, we are working with 3 pilot renovation projects covering Nordic, Continental and Mediterranean climates, and 3 virtual demonstration buildings aimed at upscaling the development of the solution.

# **Demo buildings**



#### Tartu. Estonia

This wooden-frame pilot is used as a rehabilitation center for ex-convicts. The goal is to fully renovate the facility into a near-zero energy building.

## Sofia, Bulgaria

The demo-site is a multi-family apartment building with an average annual energy consumption of 80-100 kWh/m²y (all electric including heating and DHW).



## L'Aquila, Italy

L'Aquila hosts this masonry load bearing structure with a class G energy certification. The building will become a nursing home.

# Virtual buildings



#### Glasgow, UK

Glasgow hosts the Helix Building, an office, where heating is delivered via a LTHW boiler, and ventilation is provided mostly via natural ventilation.

#### Amsterdam, Netherlands

This is a mixed used building with concrete walls and slab with double glass aluminum frame windows in the nerve centre of the Netherlands.



## Milan, Italy

This high-rise building, to be retrofitted, has a concrete structure and brick walls, using gas for heating. It has a particular "flower" geometry and it is part of a high-density residential area of 13 buildings.





Stay up to date with our latest news and with the project progress. Subscribe to ENSNARE newsletter and follow us on social media!



