

# Demo buildings

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.



## 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/m<sup>2</sup>y (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.



# 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.**

[www.ensnare.eu](http://www.ensnare.eu)

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

# 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

