



**Cost-effective deep renovation technologies to make buildings decarbonisation a reliable, attractive and sustainable investment**

Deep renovation is a key action to drastically reduce energy demand and achieve the EU vision of a decarbonised building stock by 2050. However, **only 1% of European buildings are being renovated yearly** and shallow retrofits persist with low impact on energy consumption.

The StepUP project is developing **new technologies and solutions** to make building renovation more attractive and affordable.

To achieve this, StepUP uses continuous feedback loops and promotes an iterative deep energy renovation approach, based on data insights, which **minimises performance gaps, reduces investment risks, minimises disruption and positively impacts on energy costs, Indoor Environmental Quality (IEQ) and comfort.**

StepUP will offer a real opportunity to reach NZEBs, by developing a non-intrusive, quick and reliable deep renovation intervention solution that will minimise the duration of onsite works and the risk of installation errors.

# StepUP

**Solutions and technologies for the uptake of deep energy renovation processes**

 [www.stepup-project.eu](http://www.stepup-project.eu)

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 StepUP Project

# StepUP

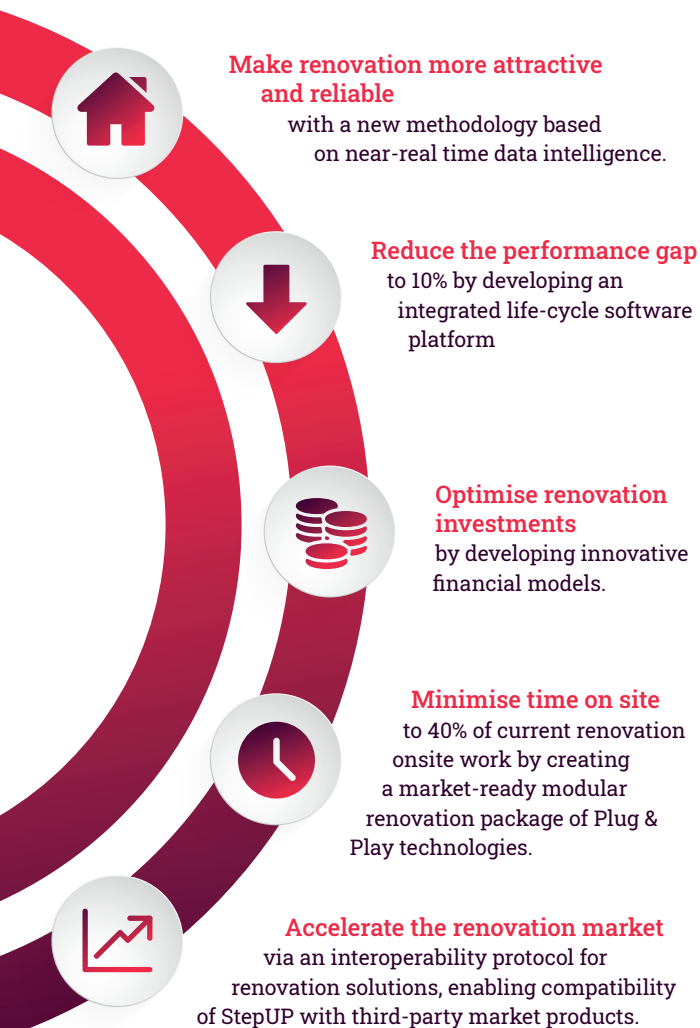
**Making decarbonisation of existing buildings a reliable and attractive investment**



The project has received funding from the EU's Horizon 2020 programme. Grant N° 847053.



## Project objectives



## Retrofitting solutions for improving building energy efficiency

1

### Plug & Play Envelope System

Pre-assembled enveloped panel integrating windows and provisions for the technical systems.

2

### Plug & Play SmartHeat solution

Groundbreaking technology for flexible consumption of thermal energy monitored and optimised through StepUP data tools.

3

### Holistic iterative methodology

Methodology for a systematic whole building renovation, incorporating the stakeholders' needs at the centre.

4

### Innovative financing tools for deep renovation

Energy Performance Contracts (EPCs) based on co-investment, continuous performance measurement and management.

5

### Software tools and platform for data collection

Data intelligence solutions to generate a sound base for the continuous measurement and verification of the renovation.

## StepUP Pilots

The project's deep renovation solutions will be demonstrated in **three different types of buildings**: multi-family residential dwellings, public non-residential buildings and rental private office buildings.



### Schools

A kindergarden in Hungary demonstrating StepUP solutions for public authorities.



### Offices

A virtual pilot in Scotland, testing StepUP analysis and diagnosis in working conditions.



### Apartments

Multi-owner apartment blocks in Spain applying StepUP to common European housing.