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.

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.

The project has received funding from the EU’s Horizon 2020 programme. Grant Nº 847053.
Optimise renovation investments by developing innovative financial models.

Reduce the performance gap to 10% by developing an integrated life-cycle software platform.

Minimise time on site to 40% of current renovation onsite work by creating a market-ready modular renovation package of Plug & Play technologies.

Accelerate the renovation market via an interoperability protocol for renovation solutions, enabling compatibility of StepUP with third-party market products.

Make renovation more attractive and reliable with a new methodology based on near-real time data intelligence.

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.

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.

**StepUP Pilots**

**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.