P2ENDURE
PLUG & PLAY BUILDING RENOVATION

PLUG-AND-PLAY PRODUCT AND PROCESS INNOVATION FOR ENERGY-EFFICIENT BUILDING DEEP RENOVATION

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WEBSITE
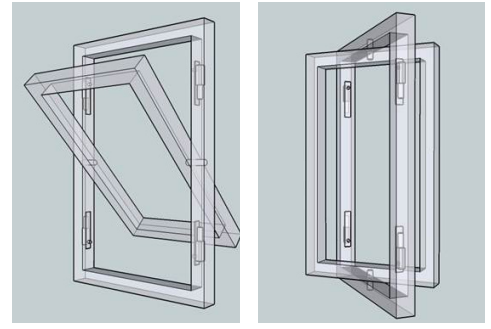www.p2endure-project.eu

DURATION
48 months

P2ENDURE aims to improve the availability and performance of energy saving solutions for deep renovation and transformation of vacant, obsolete or sub-optimal public buildings into dwellings.

The project provides Plug & Play solutions which are ready to implement, affordable, 50% faster from production to on-site assembly, scalable and adaptable (in all European countries).

DEMO CONSULTANTS — Huygen INSTALLATIE ADVISEURS — PAN+ — SGR servizi — BGTec Sp. z o.o. Innovative facade solutions — RINA D'APPOLONIA consulting, design, operation & maintenance engineering — FASADA — fermacell — CAMELOT — 3L — MIASTO STOŁECZNE WARSZAWA — UNIVERSITÀ POLITECNICA DELLE MARCHE — TU berlin — invela ENERGY EFFICIENT BUILDING CONSULTING — be-oo — Mostostal WARSZAWA

P2ENDURE SOLUTIONS

- Multifunctional EASEE prefab panel
- Smart energy-efficient window →
- Bloomframe® folding balcony
- Rooftop retrofitting / extension module
- PnP smart connectors
- PnP prefab HVAC systems

- Compact energy storage
- IEQ control systems
- Connection to energy grid and RES production
- Thermal and acoustic scanning technologies
- 3D scanning (geomatics) – laser and photogrammetry
← ▪ On-site 3D printing and robotics

P2ENDURE

P2ENDURE CASES

The innovative solutions proposed in P2Endure will be complemented with a proof-of-performance, which is based on pilot implementation and monitoring in 10 live demonstration projects in all main EU geo-clusters.

The deep renovation within P2ENDURE covers **3 typologies:**
- Transformation from public or historic buildings into dwellings
- Deep renovation of residential buildings and districts
- Deep renovation of public buildings

Preliminary list of live demonstration cases

School building in Tilburg, the Netherlands

Historic monastery building in Tilburg, the Netherlands

Historic hospital in Palmanova, Italy →

Nursery school in Gdynia, Poland

Residential district in Ancona, Italy

Residential district in Genova, Italy

Residential district in Kildeparken, Denmark

Block of 10 family dwellings in Utrecht, the Netherlands

University building in Enschede, the Netherlands →

Block of three apartment buildings in Soest, Germany

Nursery building in Warsaw, Poland

Public Spa building in Hürth, Germany