

"Energy Efficient Ventilated Façades for Optimal Adaptability and Heat Exchange enabling low energy architectural concepts for the refurbishment of existing buildings."

The E2VENT system is an external thermal building refurbishment solution for retrofitting of existing residential buildings, able to achieve remarkable energy savings, through the integration of an innovative adaptive ventilated façade system, including:

- A Smart modular heat recovery unit (SMHRU) for the air renewal allowing the heat recovery from the extracted air.
- A Latent Heat Thermal Energy Storage (LHTES) based on phase change materials providing a heat storage for heating and cooling peak saving.
- A Building Energy Management System (BEMS) for controlling the system and optimal performance.
- An efficient anchoring system minimizing thermal bridges and allowing an easy and durable installation.

PROTOTYPES

To assess the impact of the E2VENT solution, the energy performance of the three demo buildings was monitored for six months. After the installation of the E2VENT solution, the consumptions after renovation are monitored to establish energy savings. All three demo buildings were renovated during the year 2017.

Anglet (France) test bench







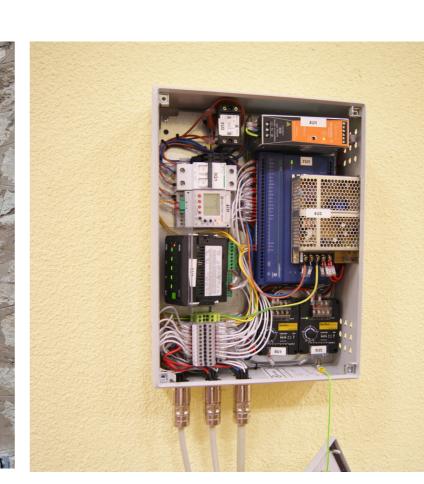


Burgos (Spain) demo building





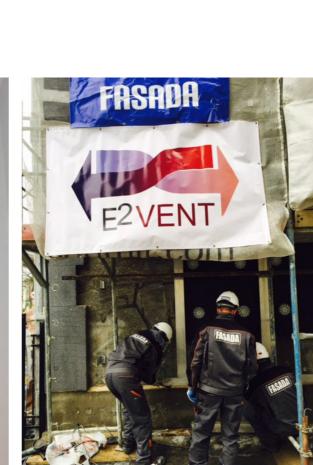




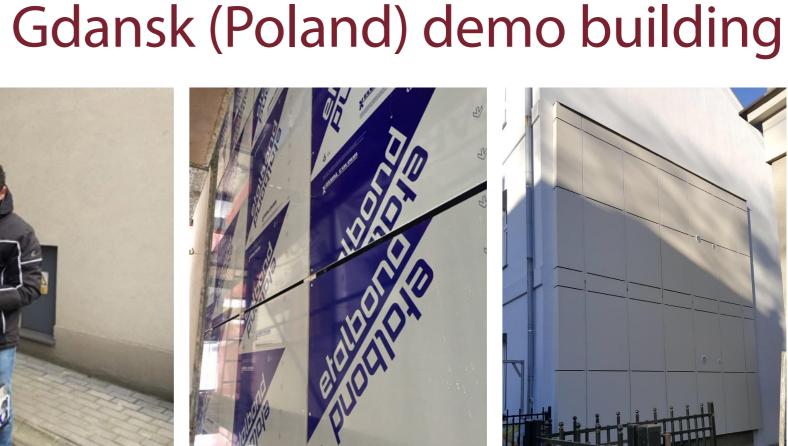








































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