

ABOUT POWERSKIN+

Highly advanced modular integration of insulation, energizing & storage systems for non-residential buildings

The project aims to develop a truly innovative façade solution based on the smart integration of highly energy efficient components, including super-insulation elements, solar energy harvesting and active energy storage features, all in one single combined active/passive management system especially addressed for modern non-residential lightweight Curtain Wall and Double Skin Frame (DSF) retrofitting solutions.

Powerskin+ intends to be at the forefront of the first generation of off-site prefabricated, modular “ready-to-buy” and easy-to-install glazing and opaque elements, with sustainable eco designed connecting framings, improved functional coatings, active and passive Thermal Energy Storage (TES) solutions and integrated semi-transparent Photovoltaic (PV) cells.

The solar electric harvesting features will be matched and completed with a dedicated large capacity building electric storage system, in a true energy management turnkey package.

POWERSKIN+ OBJECTIVES

+ INSULATION & CLIMATE CONTROL

+ EASY MODULE INSTALLATION

+ ENERGY HARVESTING

+ ENERGY STORAGE

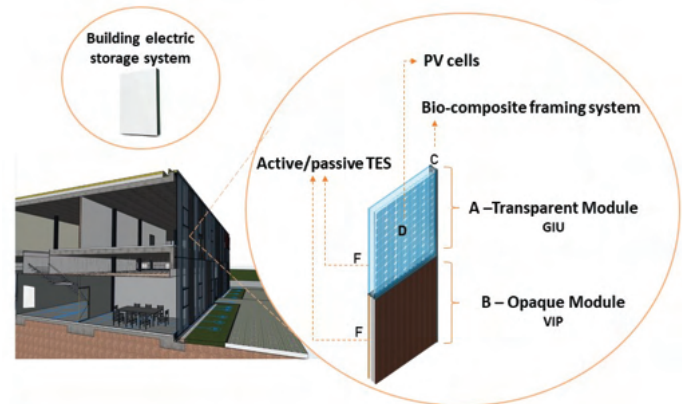
POWERSKIN+ CONCEPT

The project presents a radically new vision for insulation and on-site renewable energy generation

The concept proposed by POWERSKIN+ releases the untapped potential in the energy insulation/valorisation and energy generation of building facades by developing an integrated approach consisting of number of innovations whose technologies, efficiencies and added value exceed the currently available alternatives on the market.

Taking advantage of its modular nature, different combinations of POWERSKIN+ modules and addons can be set to match any specific need and refurbishment budget.

In its full package, branded as POWERSKIN+ Upgrade, the system targets the deep renovation market and accelerates the transition to plus energy ranks, while providing a unique all-in-one envelope retrofit solution.



DEMONSTRATION SITES +

POWERSKIN+ will prototype and demonstrate both premium and affordable solutions, for lightweight and non-load bearing curtain wall and Double Skin Frame (DSF) systems, based on highly durable system components (minimum expected average service life of 50 years for the modules).

POWERSKIN+ façade renovation system will be demonstrated and validated in an operational environment in 3 real-size non-residential buildings located in 3 different European countries (Portugal, Germany and the Czech Republic).

The demo cases represent 2 different climates (Csa - Hot-summer Mediterranean and Cfb - Oceanic in the Köppen climate classification), as well as different building practices (commercial, office, etc.), characterizing and realising how the overall system will work in real conditions in the future.



PARTNERS +



WEBSITE & SOCIAL MEDIA +



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