POWERSKIN+
walls energizing buildings

Newsletter #4

February 2024

Dear **POWERSKIN+** subscribers, thank you for following our project.
We are very excited to be releasing our fourth newsletter!

INSTITUTO PEDRO NUNES DEMO INSTALLATION

The Powerkin+ project has reached a major milestone - the full-scale pilot installation at Instituto Pedro Nunes in Portugal has been completed. View the gallery for a detailed tour through the various stages of this installation or watch the timelapse video that captures the completion in a matter of seconds.

GENERAL ASSEMBLY MEETINGS

In October 2023 the **11th General Assembly Meeting** of the project took place in Prague, Czech Republic. This event, organized by the partners from Czech Technical University, focused on the overview of the project status and outlined the next steps. The participants visited the demo site at the University Centre for Energy Efficient Building, located just outside Prague. Watch the meeting highlights below.

In January 2024, the project partners gathered for the **12th General Assembly Meeting** in Warsaw, Poland, hosted by the Warsaw University of Technology. With the Powerskin+ project nearing its conclusion, the focus was on the remaining steps needed for a successful completion, including a thorough discussion regarding the final event of the Powerskin+ project.

NEWS & EVENTS

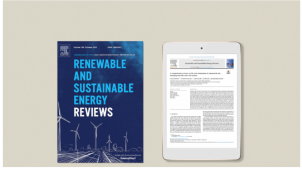
Project partners from Instituto Pedro Nunes, Politecnico di Torino, and Brunel University London participated in the 2nd International Conference on Construction, Energy, Environment, and Sustainability. The event covered a broad spectrum of multidisciplinary topics: Construction materials and technologies, Building physics, Energy, Water and sanitation, Environment, Construction and Industry 4.0 and Community challenges and policies.

The Politecnico di Torino partners participated in the 18th SDEWES (Sustainable Development of Energy, Water and Environment Systems) conference, held from 24 - 29 September 2023 in the city of Dubrovnik, Croatia. They have presented the conference paper titled "*Numerical Modelling and Performance Assessment of MicroFluidic Glazing (MFG)*".

The FRAUNHOFER partners have participated in the 28th Fakuma International Trade Fair, held from the 17th through the 21st of October, 2023. The fair for plastics processing focused on digitalization, automation, flexibility, energy efficiency, and sustainability, underlining the industry's commitment to addressing current challenges.

An interview article with the project coordinator, Jorge Corker, was featured on idealista/news, shedding light on the project's initiative. In the article "*Project develops modular facade that stores and produces solar energy*", Jorge introduces the Powerskin+ project with a focus on the installed prototype on the facade of one of the Instituto Pedro Nunes buildings in Portugal. Read the full interview here.

PUBLICATIONS



A collaboration of the Oxford Brookes University and Saule Technologies partners, an article titled "*A comprehensive review on life cycle assessment of commercial and emerging thin-film solar cell systems*," in the prestigious Renewable and Sustainable Energy Reviews Journal.

This article reviews the environmental impact of thin film solar cells compared to conventional photovoltaic technologies. It assesses 58 Life Cycle Assessment (LCA) studies, examining various types of thin film solar cells, both commercially available and emerging ones. This review serves as a benchmark for evaluating the environmental sustainability of different thin film solar cell technologies, offering valuable insights for manufacturers and LCA experts in the field of solar energy generation. Download the full article here.

ELSEVIER

Project partners from Politecnico di Torino and Friedrich-Schiller-Universität Jena have published a paper in the Energy Journal, showcasing substantial advancements in sustainable building technologies.

"*Experimental assessment of the energy performance of microfluidic glazing components: The first results of a monitoring campaign carried out in an outdoor test facility*". Download the full article here.

Project partners from Warsaw University of Technology wrote a paper for the "Advances in Power Engineering" Conference. The article discusses pertinent electrical engineering aspects of the Powerkin+ project.

"*Post EV battery energy storage facilities in the Electric Power System of a non-residential building enhancing the reliability of electricity supply and improving energy efficiency*". Download the full article here.

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