



MANUFACTURING OF COMPONENTS FOR PRODUCTION OF RENEWABLE ENERGY OR ENERGY STORAGE

INNOVATION FUND

Deployment of net-zero and innovative technologies

SHEEFT: Solar HELIup Energy for Flat roofTop

The Innovation Fund is 100% funded by the EU Emissions Trading System

| Project Factsheet

The objective of the SHEEFT project is to contribute to the large-scale, decentralised deployment of low-carbon energy production systems throughout Europe. The technology consists of a lightweight solar panel designed for existing large building rooftops (commercial, industrial, logistic, and public) with low-bearing capacities. The project focuses on the industrial manufacturing of photovoltaic (PV) panels with a production capacity of 100 Megawatt peaks (MWp) per year. The potential for relative greenhouse gas (GHG) emission avoidance during the 10 years after entry into operation is calculated to be 100% compared to the reference scenario.

This unique technology is based on the conservation of ultra-thin glass (1 millimetre (mm)) in the PV panel. It involves an innovative

COORDINATOR

HELIUP

LOCATION

France

CATEGORY

Renewable Energy (RES)

SECTOR

Manufacturing of components for production of renewable energy or energy storage

AMOUNT OF INNOVATION FUND GRANT

EUR 3,224,825

EXPECTED GHG EMISSIONS AVOIDANCE

363,660 tonnes CO2 equivalent

STARTING DATE

01 October, 2023

ENTRY INTO OPERATION DATE

31 October, 2025

FINANCIAL CLOSE DATE

01 July, 2024

installation concept via the direct bonding of the panel to a waterproofing membrane. The proposed solution, perfectly adapted to flat rooftops, leads to a 60% weight reduction of the solar system compared to conventional solutions, without degrading its performance and reliability. According to EU PV market forecasts and based on SHEEFT's project business plan, this project will lead to an estimated electricity production of 3.76 terawatt-hours (TWh) over the first ten years of operation.

Currently, a large part of existing building rooftops cannot be addressed with conventional solar solutions due to their low-bearing weight capacities. Thanks to its innovation based on the engineering of stacking specific materials, the HELIUP STYKON® panel offers increased resistance to hail and excellent robustness during installation, which meets the real-life constraints of the building sector. The technology was developed in interaction with major companies specialised in the waterproofing and construction sectors to meet the right product market fit. The high market demand from the industrial, commercial, and logistical sectors, is due to an urgent need to improve the energy efficiency of their buildings.

| Beneficiaries

HELIUP

France

By delivering a premium PV system manufacturing segment in the EU value chain, this project is in line with major EU policy objectives. This lightweight, high-performance technology implements circular economy principles, ultimately promoting a competitive sustainable production of electricity inside the EU. Additionally, the proposed solution unlocks access to newly viable surfaces for PV implementation through a process that has a low environmental impact. Therefore, it is advantageous for public support, and it also has the potential for market entry in the utility-scale sector.

The project will lead to the creation of 100 direct jobs and 150 indirect jobs. HELIUP aims to build partnerships with solar installers and building companies to create local ecosystems dedicated to increasing value creation and economy resilience. The second phase (outside the Innovation Fund project), starting in 2026, will involve building industrial units 5 to 10 times larger than the previous ones in Europe, while running further optimisation in production costs.