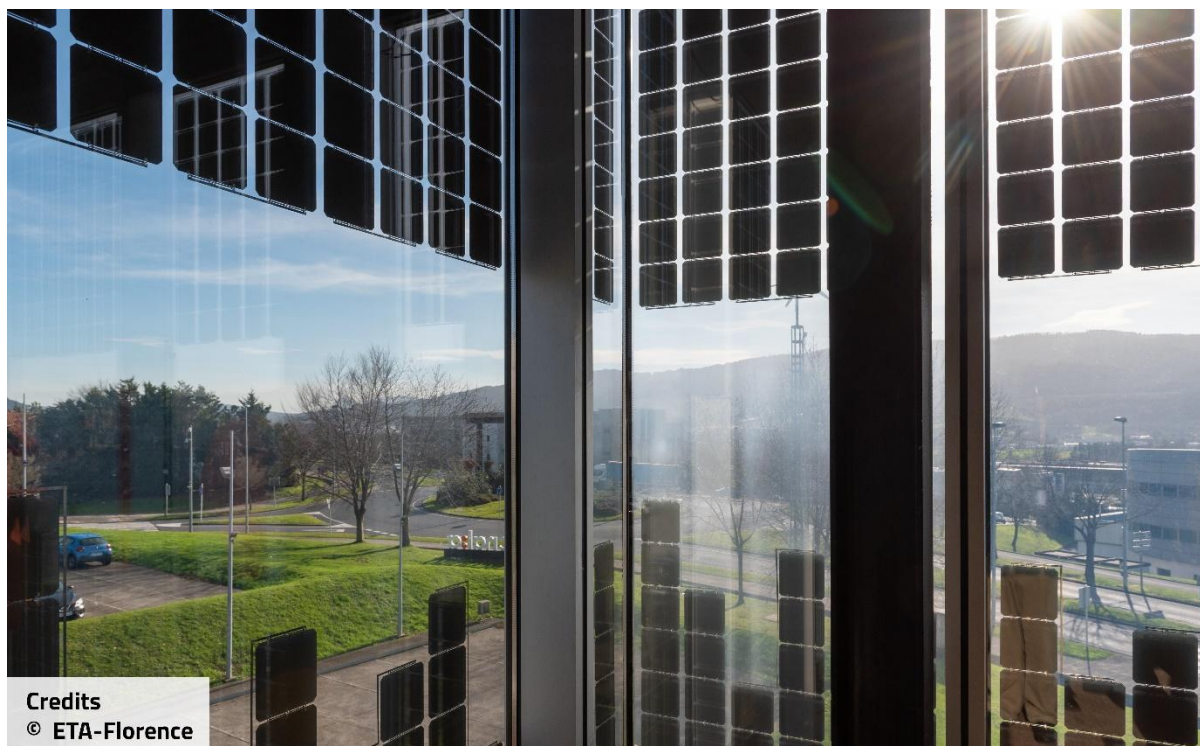


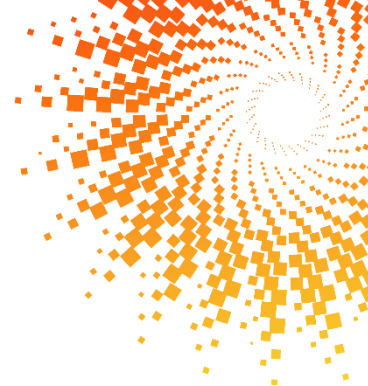
The dawn of a new phase for Integrated Photovoltaics: the launch of the SEAMLESS-PV project



BIPVBOOST pilot, prelude to SEAMLESS-PV

Photovoltaic (PV) technology has a major advantage compared to other renewable energy sources; it can be easily integrated in buildings, infrastructures, electric vehicles and in agriculture, resulting in multifunctional applications. This is what we call Integrated PV (IPV), where photovoltaics is embedded into components fulfilling other functions, exploiting modularity and synergies of use.

Seeking to push forward this concept, the **SEAMLESS-PV project**, an ambitious initiative funded by the Horizon Europe research programme has recently been launched in Bilbao, where the project partners met for the project kick-off meeting, hosted by the coordinator, TECNALIA. The consortium is composed by 18 partners from 5 EU member states (Spain, Italy, France, Germany, Belgium) and Switzerland.



The main project objectives are:

- The development of a set of advanced flexible automated PV manufacturing equipment based on high efficiency c-Si technologies, including PERC, IBC, back-contact and HJT technologies. Compatibility with upcoming cell formats (M6-M10-M12) and interconnection technologies (including multi-busbar, wire, back-contact, electrically conductive adhesives (ECA) and shingling) will be ensured.
- To address the industrialisation of new manufacturing processes that present key advantages (e.g., lightness, enhanced integrability) and cost reductions, enabling their seamless integration into final applications.
- The development of a set of IPV products demonstrating high-efficiency, cost-competitiveness and compliance with market requirements referencing standardisation frameworks.

The project will demonstrate the new equipment and manufacturing processes in real industrial environments. **Six pilot lines** hosted by industrial partners will be set-up in the project. In addition, the new manufacturing capacity will be used to build **11 different demo cases** across Europe, in particular:

- Five demonstrations of **Building-Integrated photovoltaics** (BIPV) in Italy (2), France, Belgium, and Switzerland, covering different building typologies.
- A new **PV noise barrier**, installed in the A-8/AP-8 highway at the Bizkaia Connected Corridor (BCC), a living lab infrastructure managed by TECNALIA in collaboration with the Bizkaia Regional Council.
- A demonstration of **Vehicle-Integrated photovoltaics** (VIPV), with the application of lightweight solar panels on three different vehicles from Sono Motors, in Germany.
- Two demonstrations **in the AGRI sector**, addressing open agriculture and multi-span greenhouse use cases.



SEAMLESS-PV partners during the Bilbao meeting

The consortium is composed by reference research institutes and industrial players, covering key roles along the IPV value chain of various sectors, including equipment manufacturers, IPV product manufacturers and end users in each sector, among others: **Mondragon Assembly, Becquerel Institute, PIZ srl, ETA Florence - renewable energies, ONYX Solar, SONO Motors, CEA, BECSA, BRANKA solutions, Format D2, AKUO Energy, Optimal Computing, Padanaplast SRL, CASA S.P.A., SUPSI, 3S Swiss Solar Solutions AG and CSEM.**

The project started on the 1st of January 2023 and will finish on the 31st of December 2026.



**Funded by
the European Union**

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or HADEA. Neither the European Union nor the granting authority can be held responsible for them.

Project funded by



Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Swiss Confederation

Federal Department of Economic Affairs,
Education and Research EAER
**State Secretariat for Education,
Research and Innovation SERI**

This work has received funding from the Swiss State Secretariat for Education, Research and Innovation (SERI)

