

EU Solar Buildings

Strategy day



Save the date

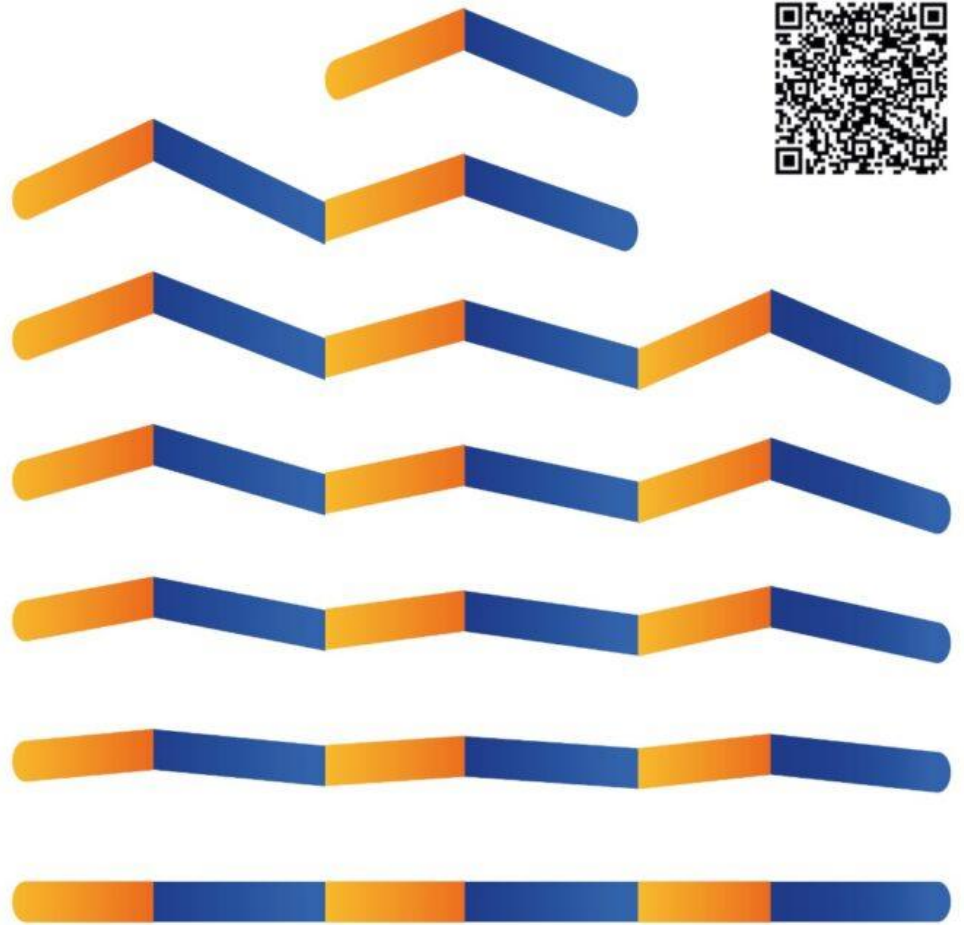
21st
February
2024



Scotland House,
Rond-Point Schuman 6,
B-1040 Brussels



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The partners of the SEAMLESS-PV project and Solar Power Europe are inviting you to a full day of workshops and networking on Building integrated Photovoltaics



EU solar buildings strategy day

Date and time: –21st February 2024 09:15-17:30

Location: Bruxelles, Scotland House

On December 2023, negotiators agreed the final text of the EPBD, aiming at decarbonising EU buildings and key measures to use solar in buildings to cover the remaining electricity demand. The EU Solar Strategy aims to provide the right framework to massively deploy solar PV energy in Europe, 400 GWdc by 2025 and almost 750 GWdc by 2030. Investments in large-scale factories, aims for 30 GW of manufacturing capacity, annually, by 2025. Net-Zero Industry Act (NZIA) will help strengthen the EU manufacturing and increase the competitiveness of EU technology. In parallel, Renovation Wave Strategy aiming to at least double renovation rates in the next ten years. By 2030, 35 million buildings could be renovated and up to 160,000 additional green jobs created in the construction sector. Revamping Europe's building stock is not only expected to widely support by the construction sector but it also help tackle climate change. New buildings must be equipped with solar in all building segments. Moreover, for all existing buildings, when they undergo a major renovation, an ambitious approach to maximise synergies of solar PV with other building works is a huge opportunity to match Renovation Wave and Repower EU strategies.

Encouraging the use of PV as construction element of the building skin (BIPV), can easily increase also cost-effectiveness by joining advantages of building skin re-cladding during retrofit operations with on-site energy production. In the past 15 years, many integrated photovoltaics (BIPV) products have been introduced and demonstrated. There are nowadays three main priorities: firstly, there is a need now for a huge scale-up and capacity of BIPV in Europe. Secondly, it is now essential that BIPV production capacity become widely available and affordable by establishing an integrated EU BIPV value chain, matching construction and solar industry needs, build-up its resilience and competitiveness for a "made in Europe" BIPV industry. Thirdly, qualified new professionals should embrace such a new interdisciplinary challenge across Europe, since design to operation of solar buildings.

In this framework, SEAMLESS-PV project is expected to set-up multilevel strategies in the 2024-2026 timeframe, for better connecting existing platforms at EU level, set-up training courses and events bridging the gap among construction and BIPV sector. During this workshop day in Brussels, we will discuss current developments to define a new set of priorities and solutions for solar buildings, with the goal of defining the main mission areas. Members of SolarPower Europe's Buildings & Prosumers Workstream and SEAMLESS-PV, manufacturers, research institutes, and associations will network with representatives of related industries and decision makers to exchange intelligence and define the strategic outlook for BIPV market and industry.

Agenda

09:15 (45') **Welcoming breakfast**

10:00 (30') **Introduction to the activities**

- Welcoming words **by Angela Grassi, ETA Florence**
- Welcoming words **by Walburga Hemetsberger, SolarPower Europe**
- Introduction to Solar Buildings strategy day **by Pierluigi Bonomo, SUPSI**
- The R&I policy of the EU in the field of integrated photovoltaics **by Maria Getsiou, DG RTD – EC**

High-level discussion: photovoltaic buildings in the EU strategies

The EU recently adopted new renewable energy targets, accelerated permitting procedures and will likely adopt the solar rooftops initiative. On the other hand, revamping Europe's building stock, it will also be a key strategy to tackle climate change. We expect that defining priorities for the adoption of PV in buildings (BIPV), will allow matching the building renovation cases with the use of solar surfaces. We propose focusing on three priorities: exploit all building skin surfaces for integrating solar in new and existing buildings (increasing ambition from solar rooftop to full solar buildings); support upfront integrated investments for BIPV adoption in "solar renovations"; support the rapid growth of BIPV removing the remaining barriers (product certification schemes, permitting and incentives).

Our objective is to arrive at sensible and ambitious solar implementation in buildings. Therefore, we will start defining the concrete action points and advantages of its practical implementation. To initiate our work, we'll invite relevant stakeholders from the solar and the building environment to this technical discussion. They will present the strategic framework, on one hand, and the advantages from their perspective, the priorities and implementation needs, followed by exchanges and an open discussion.

Moderated by

- Heinz Ossenbrink, **former Head of the Unit for Renewable Energy EU commission JRC**

10: 30 (10') Input Presentation: EU strategies and framework for BIPV

- BIPV in EU legislative and strategy cycle for solar energy (e.g. Repower EU, solar rooftop, NZIA, NCEPs) **Ignacio Asenjo, European Commission, ENER.C1**

(40') Input Presentations: BIPV perspectives for solar and construction sectors

- BIPV in real projects: techno-economic advantages for a competitive market: **Pierluigi Bonomo, SUPSI**
- BIPV and solar sector in EU: status, challenges and perspectives: **Jan Osenberg, Solar Power Europe**
- BIPV and construction sector in EU: status, challenges and perspectives: **Spyros MATHIOUDAKIS, European Builders Confederation EBC**

(25') Open discussion

11:40 Coffee break

Workshop-1: solution to massively deploy solar buildings in Europe

Solar Potential of buildings today represent a huge potential: as an example, in Switzerland, 67 GWh/year quantified from solar roofs and facades could supply about 10% more than the current electrical demand in the country. EU plans aim for 30 GW of manufacturing, annually, by 2025 under Repower-EU. Moreover, by 2030, 35 million buildings should be renovated under the Renovation Wave.

More than 200 BIPV products are commercialized nowadays on the EU market but only between 1-3% of PV installations are BIPV. There is a need now for a huge scale-up and capacity build-up of BIPV in Europe, to favour a massive deployment of zero-emission buildings and integrated renovations by maximising synergies of solar PV systems with other building works (thermal insulation of building skin and solar facades/roofs, solar balconies, etc.). Pilot project already demonstrated feasibility and market readiness, cost-competitiveness and quality along the last 10 years.

We will take stock of these approaches during this workshop, gathering input from relevant stakeholders. Relevant experiences from EU projects will present the state of play of most recent BIPV technologies, strategies for overcoming barriers and a roadmap for implementation. During this workshop, experts will present reflections on the top priorities, followed by exchanges and an open discussion. This will provide inputs for a successful implementation and growth of BIPV at EU level.

Moderated by

- Francesco Frontini, **SUPSI, Task Manager IEA-PVPS Task 15**

12:00 (40') Input Presentations

- BIPVBOOST: low cost EU products portfolio for BIPV: **Francesco Frontini, SUPSI**
- BESMART: Color next generation BIPV: **Laurre-Emmanuelle Perret, LNMT& Compaz**
- MASS-IPV: Enabling Massive Integration of PV into Buildings, **Bruno Bueno, Fraunhofer ISE**
- Market dynamics and decision-making models for BIPV in EU: **Philippe Macé, Bequerel Institute**

(20') Open discussion

13:00 Networking lunch

Workshop:-2 European BIPV manufacturing: a competitiveness key for EU?

BIPV offers an opportunity to redevelop the solar PV industry in Europe in synergy with a strong green reconversion of the built environment. BIPV can be critical to ensure a diversification of supply for the EU industry and its resilience, as well as the increasing international competition for investments.

There are three main approaches to manufacturing BIPV modules: mass production for standard products; full customization for tailor made products; mass customization enabling to manufacture semi-fabricates on the same production line supporting all possible end products. Ongoing efforts in R&I are demonstrating BIPV production models replicable with scale of investments for manufacturing projects, considering the BIPV supply chain in its entirety and in its interrelations with construction industry and process.

We will take stock of these approaches during this workshop, gathering input from relevant projects and stakeholders, drafting the issue and the potential solutions for a successful development and leadership in EU for a BIPV industry and value chain.

Moderated by

- Carmen Correias Lopez, Policy Advisor, **Manufacturing Workstream, Solar Power Europe**

14:00 (50') Input Presentations

- PV customization: which model in EU? **Laura Maturi, EURAC, ETIP-PV**
- Aesthetics and more: optimizing quality and costs in real market: **Stephan Garson, Akuo Group**
- MC2.0: mass-customization manufacturing concept for BIPV: **Roland Valckenborg, TNO**
- SEAMLESS-PV: advanced manufacturing for BIPV: **Daniel Valencia, Tecnalia**
- Solar materials and Europe's industrial revolution for efficient buildings: **Rémi Collombet, EuroACE**

(25') Open discussion

Workshop-3: cross-sectorial synergies and upskilling for solar architecture

BIPV deployment is labor-intensive. Need of qualified workers requires complex and strong cross-sectors synergies, more resources to interdisciplinary and vocational education. BIPV sector must take advantage of existing workforce in electrical and construction sectors, by introducing upskilling and a re-training to professionals including a share of other sectors (authorities, banking, insurance, etc...).

By focusing on the specific BIPV design process, goal of this workshop is to identify the lack of BIPV-related knowledge both in basic education and today's issues for existing architects and trying to identify possible solutions for ensuring skilled building professionals.

The following questions and challenges will be addressed: What's missing in today education & training approach? How to establish specialized training approaches for solar architecture professionals?

The outcome of the discussion will guide to list strategic approaches for next training actions targeted on solar architects.

Moderated by

- Arthur Daemers, Policy Advisor, **#SolarWorks Solar Power EU**

15:15 (40') Input Presentations

- Reporting from the front of solar architecture, **Jean-Didier STEENACKERS, Sunsoak**
- Challenges in shaping architectural education in EU, **Dag Boutsen, KU Leuven, EAAE**
- Stakeholder engagement and cross-sectoral cooperation. INCREASE project: **Thomas Garabetian, Solar Power EU**
- Inspired by experience to upskill architects on solar buildings: **Greta Battaglia, SUPSI**

(25') Open discussion

16:20 (10') Closing: EU Solar Building platform: mission areas and manifesto for integrating solar and construction sectors: **A. Grassi, G. Poggiaroni, P. Bonomo, F. Frontini, SEAMLESSPV**

16:30 Networking moment



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