Integrated Photovoltaics Conference

Meet the Experts in Photovoltaic Integration

Thursday 28th November 2024
Auditorium di Santa Apollonia
via San Gallo, 25
Firenze





1. Background

To achieve the goals of the Paris Agreement 2020, reaffirmed at COP 26 in Glasgow (2021), major industrial nations and regions have developed policies aimed at decarbonizing the energy sector. A common feature of these policies is setting a target date—typically between 2045 and 2060—by which energy consumption must produce zero or near-zero greenhouse gas (GHG) emissions. These target dates reflect a balance between economic feasibility and the need to limit global GHG emissions to approximately 80–100 GtCO2eq, in line with the commitment to limit global warming to "...close to 1.5 degrees Celsius by 2100."

There is broad consensus that the burning of fossil fuels must cease ("Stop oxidizing carbon!"), with coal being the first fuel to be phased out, followed by oil and gas.

2. Rationale

Renewable energy is the preferred path for replacing fossil fuels, with most renewable technologies now being cost-competitive with conventional energy sources. However, renewable energy sources such as solar, wind, hydro, and biomass require significantly more land than traditional fossil-fuel or nuclear energy production. Transitioning to zero-carbon energy by mid-century will necessitate new debates and solutions on how societies can make optimal use of available land. In densely populated areas, like Europe, it is essential to find ways to double-use existing land and infrastructure, particularly as available "unused" land for large-scale solar or wind installations continues to diminish or be allocated for agriculture.

For solar photovoltaics (PV), this means shifting the focus from merely improving device physics and materials to integrating PV systems into human environments and existing energy systems.

PV integration often involves double-use of developed environments without compromising their primary functions. This includes integrating PV into buildings ("Building Integrated PV"), agricultural land ("Agri-Photovoltaics"), and other infrastructure such as vehicles. Each of these applications requires a blend of knowledge beyond just technical solutions.

3. Scope

This conference will serve as a platform for exchanging knowledge on all aspects of PV integration. It will showcase innovative approaches and solutions across technology, engineering, design, and finance.



4. Audience

The conference is designed for a diverse audience, bringing together architects, building engineers, consultancy firms, developers, decision-makers from both public and private sectors, key stakeholders, and representatives from NGOs, environmental groups, and farmer associations.

5. Key Takeaways

- Gained a deeper understanding of the multidisciplinary approach required for successful PV integration
- Acquired valuable insights from real-world projects and case studies
- Engaged in networking and matchmaking opportunities with experts offering complementary skills and expertise



Preliminary Programme

Main Auditorium

09:00 - 09:30

Opening Remarks and Welcome

- EU Policy and the Vision for Integrated Photovoltaics (PV)
- Introduction to the Integrated PV Sectors:
 - Building-Integrated Photovoltaics (BIPV)
 - Infrastructure-Integrated Photovoltaics (IIPV)
 - Agri-Photovoltaics (Agri-PV)
 - Vehicle-Integrated Photovoltaics (VIPV)

09:30 - 10:45

BIPV for the Construction Sector: Advancing Beyond the Current State

- Emerging Trends and Future Directions in Solar Architecture
- Key Challenges for Market Expansion
- Strengthening Collaboration between Developers, Architects, Engineers, and Policymakers
- Upskilling for the Renovation Wave

10:45-11:00

Coffee break

11:00 - 11:30

Invited Keynote Message:

Innovative Approaches in Solar Architecture: Harmonizing Aesthetics and Functionality in BIPV

11:30 - 12:30

European Industry Actors in BIPV: Solutions, Challenges, and the Path Forward

12-30 - 12-45

Presentation and Official Launch of the EU Solar Buildings Platform

12:45 - 13:45

Lunch break

13:45 - 14:45

Agrivoltaics: Transitioning from Demonstration Projects to utility-scale Systems



14:45 - 15:00

Coffee break

15:00 - 16:45

Advancing Integrated PV in Europe: presentations from the "Call for Projects"

16:45 - 17:00

Final Summary and Closing Remarks



13:45-14:45 Sala Poggetti (accanto all'Auditorium) Esperienze e sfide per il BIPV in Italia

