

FOREWORD

It is with great pleasure that we present the Proceedings of the Integrated Photovoltaic (IPV) Conference 2025, held on 25–26 November 2025 at the historic Florence Chamber of Commerce in Florence, Italy. This publication brings together the contributions of researchers, practitioners, designers, and policymakers who are pioneering new ways to integrate photovoltaic (PV) technologies into our built environment, infrastructure, vehicles, and landscapes.

The IPV Conference — an initiative of the European Seamless-PV project and organised by ETA-Florence Renewable Energies — was conceived as an international forum to bridge disciplines and accelerate the transition toward sustainable energy systems. At a moment when the global imperative to reduce carbon emissions has never been clearer, the integration of solar energy technologies into everyday environments offers both a technical challenge and a cultural opportunity: to make solar part of the fabric of our cities, rural spaces, and mobility systems without compromising beauty, heritage, or function.

Over two days of presentations and discussions, participants explored advances ranging from building-integrated photovoltaics (BIPV) and agrivoltaics to digital modelling, resource efficiency, and policy frameworks.

The contributions gathered here reflect the breadth and depth of current thinking in the field — from novel materials and engineering strategies to design methodologies that embrace PV as a fundamental architectural and environmental component. This diversity of perspectives highlights the interdisciplinary collaboration essential to realising integrated photovoltaic solutions at scale.

As editors of these Proceedings, we are proud to share this record of ideas, case studies, and research that not only showcase state-of-the-art innovation but also point the way toward future directions in integrated photovoltaics. We hope this collection will serve as a lasting resource and inspiration for academics, industry leaders, policymakers, and practitioners committed to advancing sustainable energy and design.

We extend our gratitude to all authors, reviewers, sponsors, and participants whose enthusiasm and expertise made this conference a success. Through continued dialogue and shared endeavour, we are confident that integrated photovoltaic technologies will play an increasingly central role in shaping resilient, equitable, and low-carbon communities worldwide.

The Editors