39. PV-Symposium 2024

Preface

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## PV-Symposium 2024

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To measure up to its role in the energy system of the future photovoltaics needs continuous development. As one pillar in the decarbonisation of the energy system photovoltaics requires massive installation rates which are now also legally anchored.

For the energy transition we need renewed national and European added value and reconstruction of manufacturing industry. The rapidly increasing electricity demand is intensified by both, supply chain bottlenecks and the growing demands for electrical energy provision from all sectors (such as heating, transport, large-scale industry or agriculture). All sub-topics of photovoltaics along the value chain will thus become more important. Long-term value creation is only possible through quality, excellence, efficiency and new innovative developments.

A key to the success of the energy transition through high numbers of PV installations will be the integration of technology in the broadest sense. Integration means integrating to the energy system, technical and regulatory subsystems, the power grid and sectoral short-term and long-term performance and energy provision. Integration on the technical side will have to be developed to the same extent and includes not only technically integrated systems such as storage, heat pumps or Power 2-X solutions but also buildings, urban spaces and sealed surfaces, infrastructure, mobility and transport routes, areas of subsequential use and agricultural land.

The implementation of new solutions needs fully integrated innovation processes that combine science, industry and market. Accordingly, the solutions that the PV industry has to provide range from innovations in component development and module and plant design, through operation management and maintenance to planning, yield and performance forecasting and quality assurance. With the goal of a complete closed-loop economy, strategies and models for further exploitation also enable new business models.

I am confident that the new possibilities and opportunities were explored together at the *PV Symposium 2024*, where over 460 participants gathered to engage in productive and effective discussions, sharing valuable insights and driving innovation in the field of photovoltaics. The presented contributions give an overview of selected highlights from the conference.