

ISC Konstanz launches five new publicly funded photovoltaic research projects

Konstanz, Germany – July 1st 2026 – The International Solar Energy Research Center Konstanz (ISC Konstanz) has started five new publicly funded research projects in June 2026, strengthening its position as one of Europe’s leading independent photovoltaic research institutes.

The projects – SUNRISE, ALLEGRO, SmartFab, LAPIS and SPRINT – cover the entire photovoltaic value chain, from next-generation silicon wafers and solar cells to lightweight modules and intelligent manufacturing technologies. They represent a combined budget of approximately 4.2 million euros for ISC Konstanz over the next three years.

“We are particularly pleased that five major projects have started simultaneously. They demonstrate the confidence that national and European funding agencies place in our research and underline the importance of publicly funded innovation for strengthening Europe’s photovoltaic industry,” says Dr. Radovan Kopecek, Managing Director of ISC Konstanz.

The new projects address some of the key challenges facing the solar industry:

- **SUNRISE**, a Horizon Europe project, develops lightweight, glass-free photovoltaic products based on fibre-reinforced composites. The technology aims to open entirely new application fields for photovoltaics, including automotive, marine and transport infrastructure applications.
- **ALLEGRO**, also funded by Horizon Europe, focuses on disruptive kerfless silicon wafer technologies. By growing silicon wafers directly from the gas phase, the project aims to establish a competitive and resilient European wafer manufacturing ecosystem while significantly reducing material and energy consumption.
- **SmartFab**, funded by the German Federal Ministry for Economic Affairs and Energy (BMWE), develops a virtual, AI-supported solar cell factory based on digital twins. The project will enable realistic simulation, optimisation and ramp-up of future photovoltaic production lines without requiring physical infrastructure.
- **LAPIS** develops laser-structured passivated contacts for innovative TOPCon solar cells. The project aims to further improve cell efficiency while maintaining compatibility with industrial high-throughput production.
- **SPRINT** addresses further innovations for next-generation photovoltaic technologies and contributes to accelerating their industrial implementation.

Together, the five projects strengthen Europe's technological sovereignty in photovoltaics and support the development of competitive, sustainable and resilient solar manufacturing value chains.

The simultaneous launch of these projects highlights ISC Konstanz's unique expertise, ranging from materials and cell technologies to modules and digital production concepts, and reinforces the institute's role in transferring research results into industrial applications.

About ISC Konstanz

Founded in 2005, ISC Konstanz has contributed to photovoltaic manufacturing lines across Europe, Asia, and North America. With its upgraded infrastructure, the institute is strengthening its role as a key partner for industrial photovoltaic innovation and the development of next-generation high-efficiency solar technologies.

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Images

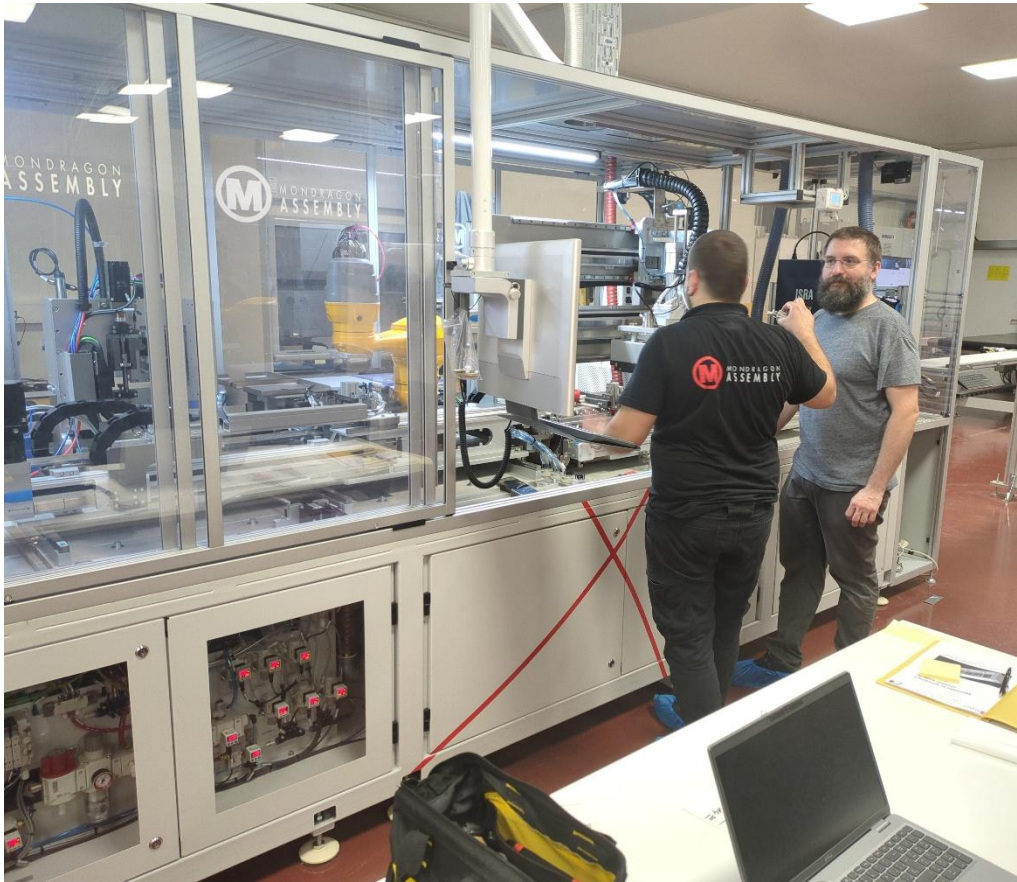


Figure 1: ISC Konstanz engineer Matthias Helbig (left) and a service engineer from Mondragon Assembly prepare the newly installed stringer for manufacturing specialized cell strings required for the Horizon Europe project SUNRISE. The project develops lightweight, glass-free photovoltaic products for new application fields such as automotive, marine and transport infrastructure.



Figure 2: The ISC Konstanz team celebrates the launch of five new publicly funded research projects. The photo was taken in front of the institute's façade, featuring a photovoltaic system made from recycled solar cells that demonstrates ISC Konstanz's long-standing commitment to innovation and sustainability.



Figure 3: Dr. Radovan Kopecek, Co-founder and Managing Director of ISC Konstanz, sees the simultaneous launch of five new publicly funded research projects as a strong signal for photovoltaic innovation and European technology leadership.