

# Quality for a Sustainable Future in Solar: INNOVATION & BANKABILITY



In association with



Cost-reduction through material optimisation and Higher EnERgy output of solar photovoltaic modules - joining Europe's Research and Development efforts in support of its PV industry

## Description

Photovoltaics (PV) is one of the most promising renewable energy technologies for Europe. In fact, PV is now, after hydro and wind power, the third most important renewable energy source in terms of global installed capacity. PV can significantly contribute to achieving the EU's 20-20-20 climate change objectives, as well as to the longer term goal of reducing greenhouse gas emissions by 80-95%, as targeted in the European Energy Roadmap 2050.

In that purpose, the European Commission has challenged the PV industry to set new, ambitious targets for 2020 as part of the Commission's Strategic Energy Technology (SET) – Plan.

The CHEETAH project is directly linked to the EERA-PV Joint Research Program, which aims to increase the effectiveness and efficiency of PV R&D through alignment and joint programming of R&D of its member institutes, and to contribute to the R&D needs of the Solar Europe Industry Initiative.

## Objectives

Use of less, cheaper and sustainable materials

Increase of overall performance

**CHEETAH**  
EERA-PV + EPIA + KIC InnoEnergy

### TOPICS

4 main topics:  
- Silicon wafers and cells  
- Thin-film PV  
- Organic PV  
- Module technology

3 secondary topics:  
- Building Integrated PV  
- Concentrated PV  
- Novel PV technologies

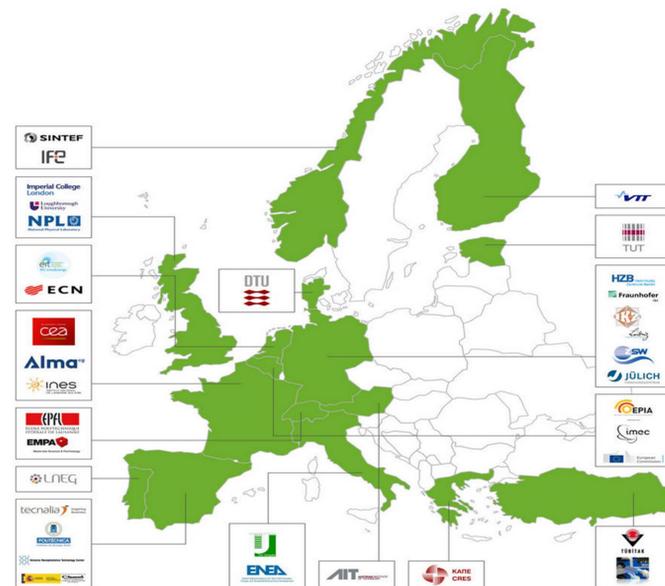
### ACTIVITIES

Research Activities  
↳ technology developments

Fostering long-term European cooperation

Accelerating the transfer to PV industry

## Consortium

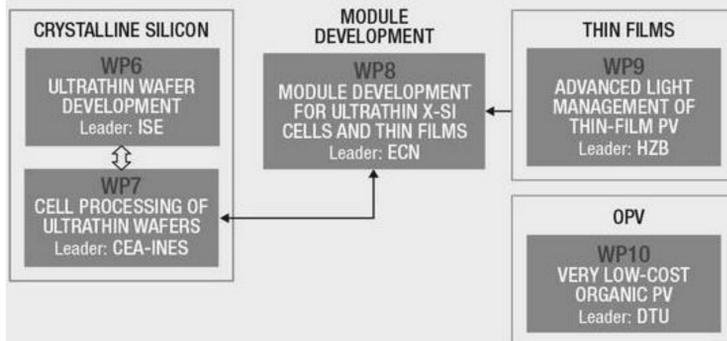


## Project workflow

Coordination activities: developing the basis for long-term research and giving access to the knowledge to researchers and industry



JRA : improving the services provided and fill in the gaps: more power with less materials



The Solar Bankability project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement n° 649997



Improving the Financeability and Attractiveness of Sustainable Energy Investments in Photovoltaics: Quantifying and Managing the Technical Risk for Current and New Business Models

## Description

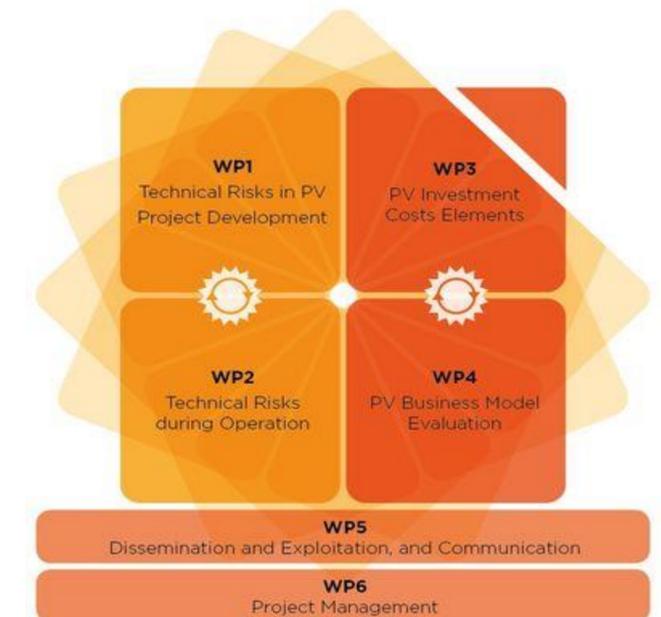
Solar Bankability is a project funded by the European Commission's Horizon 2020 programme. It will run from March 2015 until February 2017 and its aim is to contribute to the reduction of the risks associated with investments in sustainable energy projects.

The project results should increase trust from investors, financiers and insurance companies. The project aims to establish a common practice for professional risk assessment based on technical and commercial due diligence. The focus is on photovoltaic (PV) installations, with emphasis on rooftop projects and on prosumers, generating and consuming their own electricity, and on respective financing solutions provided by professional investors.

## Objectives

- To develop, document and establish practices for evaluating, and mitigating the technical risks associated with investments in photovoltaics.
- To evaluate how these risks affect the electricity production and the expected return on investments in different business models.
- To develop, document and establish practices on how to reflect these risks in the financial modelling of photovoltaic projects by investors.
- To enable the key actors, and particularly the financial market actors, to widely adopt the project results as best practices for the mitigation of risk of sustainable energy investments with current and new business models.

## Project workflow



## Expected impacts

- ✓ Reduce uncertainty, increase investors' confidence and trust
- ✓ Valuation methodologies of solar photovoltaic investments based on standardized risk rating system
- ✓ Standardized descriptions and proposals of models for cost calculation including practices for accounting of technical risks in solar photovoltaic energy investments
- ✓ National strategies for financing solar photovoltaic energy investments



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