

# Publishable Summary

EU-SOLARIS aims to create a new legal entity to explore and implement new and improved rules and procedures for Research Infrastructures (RI) for Concentrating Solar Thermal (CST) and Solar Chemistry technologies, in order to optimise RI development and Research and Technology Development (RTD) coordination. It is expected to be the first of its kind, where industrial needs will play a significant role and private funding will complement public funding.

It intends to:

- Become a unique distributed RI for CST technologies.
- Optimize RI development and RTD coordination by creating a new legal entity to explore and implement new and improved rules and procedures for RI for CST technologies.
- Ensure the alignment of the RI activities with the industry's needs.
- Maintain Europe at the forefront of CST technologies development.

EU-SOLARIS expects to provide the most complete, high quality scientific infrastructure portfolio at international level and to facilitate researchers' access to highly specialised research infrastructure through a single access point. This will be accomplished by linking scientific communities, industry and universities involved in the CST sector. Moreover, it is expected to increase the efficient use of the economic and human resources required throughout the European research context. EU-SOLARIS will provide efficient resource management to complement research and to avoid unnecessary technological duplication and repetition.

EU-SOLARIS is currently under its Preparatory Phase. In this phase, the activity development is distributed into eight Work Packages:

- WP1 – Governance and financial issues.
- WP2 – Legal status and user access policies.
- WP3 – Capacity building and services.
- WP4 – Innovation and contacts with industry.
- WP5 – Distributed facility activity and logistical work.
- WP6 – Dissemination and outreach.
- WP7 – Technical design of STE research infrastructure and research activities.
- WP8 – Management

The structure combines horizontal activities (management, legal consultancy, human resources, communication) and vertical activities (knowledge breakdown, systems, project management, measures). The project activities are further grouped according into four principal subjects, which are the following:

- EU-SOLARIS constitution and relationships strengthening.
- EU-SOLARIS distributed facility and logistical activities.
- External activities to assess the EU-SOLARIS impact and outreach
- Related technology activities

The following fifteen partners constitute the consortium that is executing the EU-SOLARIS Preparatory Phase project:

- CTAER: Advanced Technology Centre for Renewable Energies (Spain, Coordinator)
- CIEMAT-PSA: Centro de Investigaciones Energéticas, Medioambientales y Tecnológicas-Plataforma Solar de Almería (Spain)
- MINECO: Ministerio de Economía y Competitividad (Spain)
- Cyl: The Cyprus Research and Educational Foundation – The Cyprus Institute (Cyprus)
- ESTELA: European Solar Thermal Electricity Association
- CNRS: National Center for Scientific Research (France)
- DLR: German Aerospace Center (Germany)
- APTL-CERTH: Centre for Research and Technology Hellas (Greece)
- CRES: Centre for Renewable Energy Sources and Saving (Greece)
- ENEA: Agenzia Nazionale per le Nuove Tecnologie, L'energia e lo Sviluppo Economico Sostenibile (Italy)
- WEIZMANN: Weizmann Institute of Science (Israel)
- LNEG: Laboratório Nacional de Energia e Geologia, I.P. (Portugal)
- U.EVORA: Universidade de Evora (Portugal)
- GÜNAM: Middle East Technical University (Turkey)
- SELCUK U: Selcuk Universitesi (Turkey)

These partners manage some of the best concentrated solar thermal research infrastructures in the world and agglutinate an impressive amount of know-how and expertise in the field. They represent nine countries, seven of them from the European Union.



**Geographical distribution of EU-SOLARIS partners**

The figure above shows the geographical distribution of the EU-SOLARIS Preparatory Phase partners, as well as an indication of the type of CST RIs they have.

During the first 18 months of the EU-SOLARIS Preparatory Phase a substantial amount of effort has been devoted to:

- Kick-starting the project and starting to address the main questions which are pertinent to the setting up of EU-SOLARIS, such as:
  - What are the best governance and legal structure for EU-SOLARIS?
  - What should be the portfolio of services that EU-SOLARIS should provide to the industry and the research community?
  - What is the best business model for EU-SOLARIS?
  - What is the role that it could and should play at the European and international level?
  - How the infrastructures of the EU-SOLARIS partners should be upgraded to adjust to the future demands of the scientific community and the industry and to maintain relevance in the mid and long term?
  - What new infrastructure should EU-SOLARIS build to support European excellence in research in the CST field in the mid and long-term?
  - What mechanism should EU-SOLARIS develop to engage industry and to ensure that its offerings are aligned with industry needs and priorities?
  - How can EU-SOLARIS target potential users and expand its users base beyond the current users of the consortium partners?
- Putting in place all the necessary project committees and structures.
- Awarding the consultancy contract foreseen in the Description of Work.
- Setting up all necessary collaboration tools and procedures, and providing support to the consortium members regarding their appropriate use.
- Analysing in detail the work programme, to structure it at a further level of detail and to identify areas where the coordination of Work Packages was especially relevant in order to avoid duplication of efforts and to guarantee the timely and appropriate execution of the EU-SOLARIS preparatory phase project.
- Achieving convergence among EU-SOLARIS consortium partners on the level of understanding of the purpose and goals of the project, since not all of them had the same background and trajectory in the CST field, and not all of them had the same level of sophistication in the design, implementation, management and operation of large CST research infrastructure or even the same level of infrastructures regarding scope, quality, and size.
- Refining the concept of EU-SOLARIS as a European large scale distributed research infrastructure and advancing in a common vision for EU-SOLARIS.
- Drafting and agreeing on the EU-SOLARIS Preparatory Phase Communication plan.
- Launching the EU-SOLARIS official website and regularly updating its content ([www.eusolaris.eu](http://www.eusolaris.eu)).
- Expanding the project outreach and keeping all current and potential stakeholders and users informed of the progress of the project and of how the EU-SOLARIS vision is being pursued.
- Increasing the engagement with other FP7 and Horizon 2020 projects (e.g. CoPoRi, SFERA II, and STAGE-STE).

In general, the most important milestones and deliverables scheduled for the first reporting period (M1-M18) of the Preparatory Phase of the EU-SOLARIS project have been fully achieved, and although some minor reports have not been fully finalised on time, all project partners concur in the assessment that the delays so far incurred are not substantial and they are to be expected in a complex project like this, with multiple work packages, tasks and deliverables and with a relatively large number of partners, some of which have not worked together in the past. During these first 18 months of the project, the collaboration among all project partners has been

relentlessly gaining momentum in an atmosphere of collegiality and partnership, to the point that currently there is intensive collaboration among all project partners on all WPs, and there is a lot of excitement about the project and the benefits EU-SOLARIS will bring to the European CST technologies stakeholders and to the consolidation of the European leadership in this very promising field in the world.