

Access to the Research Infrastructures

Sophia provides European researchers with the opportunity to develop their own research projects through the Transnational Access (TA) to the Sophia consortium's Research Infrastructures (RI) – free-of-charge, supported by the European Commission.

Project applications proposing the use of the Sophia Research Infrastructures will be selected by a Selection Committee through a transparent process based on defined merit criteria. The free-of-charge access will include transport, accommodation, RI access and access assistance - to be agreed on and specified between the parties.

The Calls for Proposals will be targeted to the following topics described hereafter.

Proposals will freely cover aspects related to one or more of the listed topics.

The following main Eligibility provisions of the Users Groups according with the EC Rules for Transnational Access apply:

- The User Group leader and the majority of the Users must work in an institution established in an EU Member State or Associated State;
- The User Group leader and the majority of the Users must work in a country other than the country(ies) where the legal entity(ies) operating the infrastructure is(are) established.
- Only User Groups that are entitled to disseminate the foreground they have generated under the Sophia access are eligible to benefit from access free of charge to the infrastructure.

Partners



Free access to 48 research infrastructures on:

- Silicon material
- Thin films and TCOs
- Organic PV
- Modelling
- CPV
- BIPV
- PV Module lifetime
- PV module and system performance

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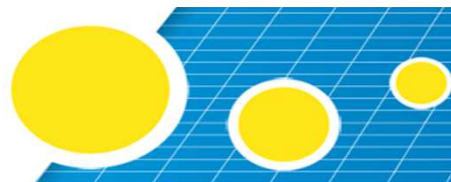
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Transnational Access to PV Research Infrastructures



For more details, refer to the Sophia Website at
www.sophia-ri.eu



Context

The FP7 Capacities program of the European Commission aims to optimise the use and development of research infrastructures, while enhancing the innovative capacities of SMEs to benefit from research.

Research infrastructures play an increasing role in the advancement of knowledge, technology and their exploitation. They need a broad range of expertise to be developed and should be used and exploited by a large community of scientists and industries on a European scale.

The Sophia Project

The Sophia objectives are to join forces of partners from academia and research institutes in order to address some specific challenges of solar photovoltaic energy such as :

- The characterisation and understanding of some materials : silicon, TCOs, thin films, polymers, etc.
- The modeling of cells, modules and systems
- The performance evaluation of modules and systems, including CPV and BIPV

And to give access to European researchers to a unique portfolio of laboratories and test facilities in the field of photovoltaics. This will ensure that a large number of scientists from the EU and the Associated States can benefit from expensive equipment, helping in maintaining Europe leadership in this strategic sector.

This project includes three categories of activities :

- Networking activities
- TransNational Access activities
- Research activities

Networking activities

They aim at :

- Defining and sharing common objectives over the future of PV research (market, technology, research, standards),
- Organising expert committees to define common procedures for testing and characterising PV materials, modules and systems,
- Performing training and exchange activities for all European scientists (summer universities, exchanges between different structures).

Research activities

They are organised in order to improve and optimise the services provided by the research infrastructures : quicker material characterisation, faster lifetime prediction, more accurate modeling or performance prediction, etc.

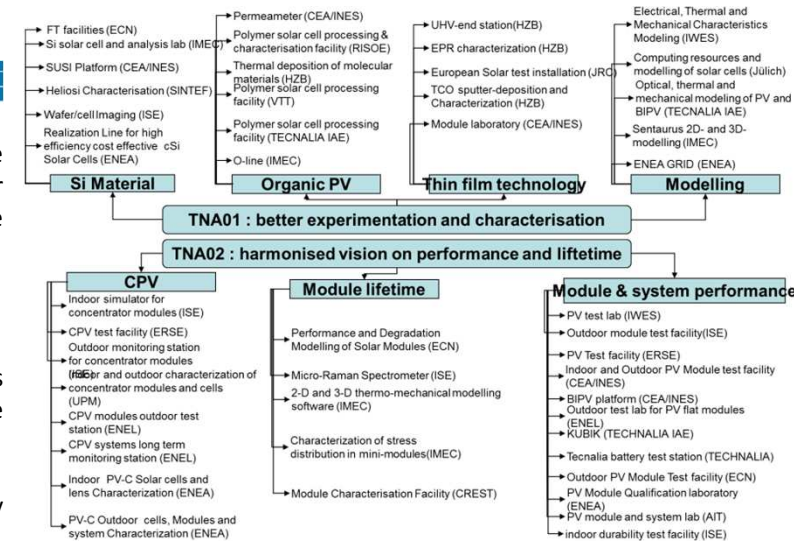
Our work is focused on four topics:

- JRA 1: Quicker lifetime prediction of PV modules though accelerated ageing tests and improved failure analysis procedures
- JRA 2: Greater accuracy of rated power and energy output prediction of PV modules & systems
- JRA 3: Improved Material characterisation procedures dedicated to:
 - silicon material,
 - thin films and TCOs,
 - and organic solar cells
- JRA 4: Improvement and validation of software infrastructure for material, cell, module and system modelling

TransNational Access activities

These activities aim to provide free of charge and open access to 48 research infrastructures, dealing with:

- Better experimentation and characterisation of materials and innovative technologies,
- The development of an harmonised vision on performance and lifetime prediction of PV modules and systems.



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