











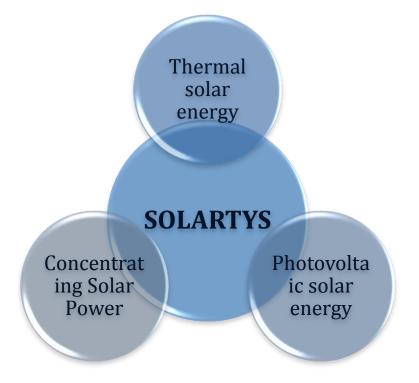
Metall – wir leben es



SOLARTYS

Solartys through the cluster strategy:

- Founded in 2007: more than 130 committed members.
- Solartys belongs to a meta-cluster called Secartys, with over 400 members, focused on electronics and ICT's technologies.
- We have a global view of the entire solar value chain and the involvement of its agents.









SOLARTYS CONTEXTUALIZATION

Regional scale



National scale



International scale



Solartys is part of the **red de Clústers Catalanes** by ACCIÓ.

> Catalonia Clusters 🎢

Solartys is involved in **XEEC** (Xarxa d'Entitats d'Energía de Catalunya)



Solartys is recognized as Asociación de Empresas Innovadoras (AEI) for the solar energy sector by the Ministry of Industry, Energy and Tourism of Spain.

Solartys is the interlocutor of <u>ICEX Sector Plan</u> to coordinate the participation of Spanish companies in international fairs and conferences. Solartys has recognition as Cluster Bronze Label, awarded by the European Cluster Excellence Initiative (ECIS).



Collaborates with <u>ICEX trade</u> <u>offices</u> for the organization of conferences worldwide





EUROPEAN PROJECTS EXPERIENCE

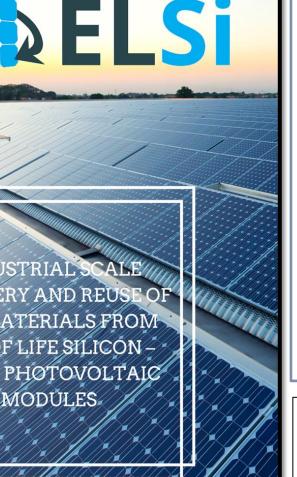
- Wide experience in European Projects (MEDSolar, INARA, FOSTErin MED, GMI...) in many different calls (ENPI, FP7, MED, H2020, EuropeAid, Interreg...)
- Fields of expertise:
 - Dissemination and communication
 - Networking
 - Standardization
 - Organization and analytical skills
- On average, the SOLARTYS' European Projects Office submits over 30 proposals per year since 2009.





Co-funded by the Horizon 2020 programme of the European Union

INDUSTRIAL SCALE RECOVERY AND REUSE OF ALL MATERIALS FROM END OF LIFE SILICON -BASED PHOTOVOLTAIC MODULES



WHICH IS THE OBJECTIVE OF THE **PROJECT?**

This ELSi project will demonstrate and validate a complete recycling system for end of life (eol) photovoltaic (PV) modules.

WHY NOW?

During the last three decades PV systems have been deployed throughout Europe showing enormous growth. Early systems are now reaching end of life and have to be disposed after returning.

> **Budget:** 3,2 M€ <u>Grant</u>: 2,5 M€ **Duration :** 24 Months



PARTNERS

• Geltz Umwelttechnik GmbH



Plant engineering and construction

• Recyclage et Valorisation Technique



Recycling recovering and disposing of industrial waste

• Variata Dorit Lang GmbH & Co. KG



Custom – made metal solutions

Metall – wir leben es

IDENTIFICATION of big economic potential of raw materials contained in end of life PV modules.

DEVELOPMENT of patented technology to recover about 95% of silicon, high purity glass, aluminum, copper, silver, gold, tin and lead from end of life PV modules.



PARTNERS

 Asociación Española para la Internacionalización e Innovación de las Empresas Solares



 Fraunhofer-Gesellschaft zur Förderung der angewandten Forschung e.V



MARKETING AND COMMUNICATION ACTIVITIES will be carried out like;

- Visits at the demonstration site
- Publications in user-oriented recycling and waste journals
- Presentations at conferences and various webbased dissemination actions.



PROJECT DETAILS

- **MECHANICAL SEPARATION PROCESSES** and **ELECTRICALLY DRIVEN SEPARATION AND WINNING** will be combined in a new way enabling economically viable recovery.
- **LOGISTIC ASPECTS** to be worked on; including procurement, transportation and outbound logistics.
- It will be important to **ENSURE SUPPLIES OF EOL PV MODULES** are available for post project operation.

<u>During the whole project a focus will be on the</u> <u>commercialization of the ELSi PV recycling system.</u>



WP1 – MANAGEMENT

ENSURE THE MANAGEMENT OF THE PROJECT AND THE CONSORTIUM

- i. Task 1 : Administration
- ii. Task 2 : IP Management
- iii. Task 3 : Risk Management

> WP2 - REGULATIONS

ENSURE THE AWARENESS ON ALL RELEVANT REGULATORY FRAMEWORK (SUPPORTING FRAUNHOFER)

- i. Task 1 : EU-28
- ii. Task 2 : Global level
- iii. Task 3 : Ongoing monitoring



≻WP3 – DESIGN

- i. Task 1 : Data pooling
- ii. Task 2 : Plant Design
- iii. Task 3 : Design of Automation and Control System

► WP4 – BUILD

- i. Task 1 : Build
- ii. Task 2 : Commissioning
- iii. Task 3 : Testing



WP5 – DEMONSTRATION

- i. Task 1 : Operate
- ii. Task 2 : Process Optimization
- iii. Task 3 : Validation of outputs
- iv. Task 4 : Training
- v. Task 5 : Visits, presentations & demonstrations

► WP6 – LOGISTICS

EVALUATE AND DETERMINE THE OPTIMUM LOGISTIC SYSTEM.

- i. Task 1 : Procurement
- ii. Task 2 : Transport logistics
- iii. Task 3 : Outbound logistics



≻<u>WP7 – COMMUNICATE</u>

- i. Task 1 : Messages and Audiences
- ii. Task 2 : Communication objectives
- iii. Task 3 : Validation of outputs
- iv. Task 4 : Training
- v. Task 5 : Visits, presentations & demonstrations

► WP8 – COMMERCIALISE

PRODUCE A DETAILED BUSSINES PLAN & INCLUDE A PLAN FOR DISSEMINATION AND EXPLOITATION OF PROJECT RESULTS

- i. Task 1 : Market Assessment
- ii. Task 2 : Advanced Commercialization
- iii. Task 3 : Confirmed Plan for Dissemination and Exploitation of Results





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