

# STRATEGIC PROJECT

Enhancing small scale concentrated solar systems to generate renewable energy at low cost for public buildings



## STS-Med

Small scale thermal solar district units for Mediterranean communities



Project  
funded by the  
**EUROPEAN UNION**



REGIONE AUTONOMA DE SARDIGNA  
REGIONE AUTONOMA DELLA SARDEGNA

## The project in brief

In the Mediterranean area, a large share of energy is consumed by households and in buildings. In addition to the dependence on fossil fuel, oil and natural gas, the primary energy demand is growing at a regular pace. Increasing the share of solar energy sources in the overall energy mix is a crucial goal for the Mediterranean area, as the exploitation of a sustainable renewable energy source would contribute to climate change mitigation - an issue of concern for the region due to its impact on desertification, floods, coastal vulnerability - and to energy security. Although impressive improvements have been made in the recent years concerning the integration of solar energy systems into conventional heating technology and despite the availability of mature technologies, solar thermal energy is still used in a rather small percentage of buildings and generally, only for domestic hot water in private houses.

To improve this situation, **STS-Med** will contribute to the diffusion and development of Concentrated Solar (CS) small scale integrated systems, a high energy efficiency technology with a potential for replication across the Mediterranean area.

## Beneficiary

ARCA Consortium (Italy, Sicilia)

## Partnership

1. The Cyprus Institute (Cyprus)
2. Cyprus Chamber of Commerce and Industry (Cyprus)
3. Academy for Scientific Research and Technology (Egypt, Al Iskandanyah)
4. New and Renewable Energy Authority (Egypt)
5. Elsewedy Electric (Egypt, Al Iskandanyah)
6. French Alternative Energies and Atomic Energy Commission (France, Provence-Alpes-Côte d'Azur)
7. CEEI Provence - Innovation business support (France, Provence-Alpes-Côte d'Azur)
8. University of Athens, Institute of Accelerating Systems and Application (Greece, Attiki)
9. Al Balqa Applied University (Jordan, Irbid)
10. Ministry of Energy and Mineral Resources (Jordan)
11. Millenium Energy Industries (Jordan, Amman)
12. ENEA - National Agency for New Technologies, Energy and Sustainable Economic Development (Italy, Lazio)
13. Sicily Region - Department of Production Activities (Italy, Sicilia)

## Specific objectives

- To create a flexible toolbox of Concentrated Solar (CS) applications by demonstrating their effectiveness in public buildings and premises
- To deploy technologies from research and development results through case studies analysis, impact assessment and creation of demonstration units
- To create new opportunities for the commercial and industrial sectors notably by improving technical skills of professionals involved and enabling SMEs to set up a full supply chain in the solar energy sector

## Expected results

- 4 demonstrative plants implemented in Italy, Cyprus, Egypt, and Jordan for a total power of 400 kW showing the benefits of the CS technologies to 20.000 end users coming from 20 Mediterranean local communities
- Enhanced industrial perspective for CS technologies
- Reinforced technological and operational industrial expertise of 200 energy professionals
- Fostered growth of local production chains with the creation of new qualified jobs on CS systems production & installation
- Policy makers supported in the decision-making process concerning incentives for solar energy
- Increased awareness of target groups and institutional actors concerning the benefits of CS technologies

## Main activities

- Design of CS applications toolbox and integration in demonstration units
- Preparation of technical papers and feasibility studies
- Identification of best policy practices and benchmarks to boost the development of CS technologies
- Drafting of market studies on CS systems demand in the countries involved
- Creation of public-private technological clusters
- Technology qualification audits to integrate SMEs in the energy supply chain
- Transfer of know-how and training activities for energy professionals
- Organisation of dissemination and brokerage events

## Target groups

- Local and regional authorities responsible for energy policies
- Public building owners/managers
- Components manufacturers and suppliers
- Energy professionals (engineers, architects, energy specialists)

## Final beneficiaries

- Users of public buildings including schools, hospitals, municipal facilities
- Public utilities as energy providers
- SMEs clusters
- Investors

## Duration

36 months (November 2012 - November 2015)

## Budget

- Total budget: € 4.953.512
- Programme contribution: € 4.458.161(90%)
- Project co-financing: € 495.351(10%)

## Website

[www.stsmed.eu](http://www.stsmed.eu)

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