



# AMBIENTEITALIA

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IEE Project: “Best practice implementation of solar thermal obligations”

ProSTO



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# PROJECT SUMMARY

- 5 Countries (IT, DE, SP, PT, RO) and 13 partners (scientific/technical institutes and Local Authorities, LA)
- **General objective:** to boost the use of solar thermal systems in the European countries by promoting an efficient implementation of solar thermal obligations (STOs); STOs are legal provisions obligating owners of buildings to install a solar thermal system on new/renovated buildings
- **Main outputs and expected results:**
  - 5 show cases of best practice STOs: implementation and monitoring
  - Diffusion of the developed tools (documents, procedures, etc.) among LA all over Europe, thereby removing barriers for new actors willing to introduce STOs
  - Concrete support to LA by means of a help-desk
  - An efficient implementation of STOs could lead to a growth of the solar thermal market, at local or European level, of e.g. a factor of 10 in few years. thereby creating jobs and strengthening Europe's renewable energy export economy

# BACKGROUND

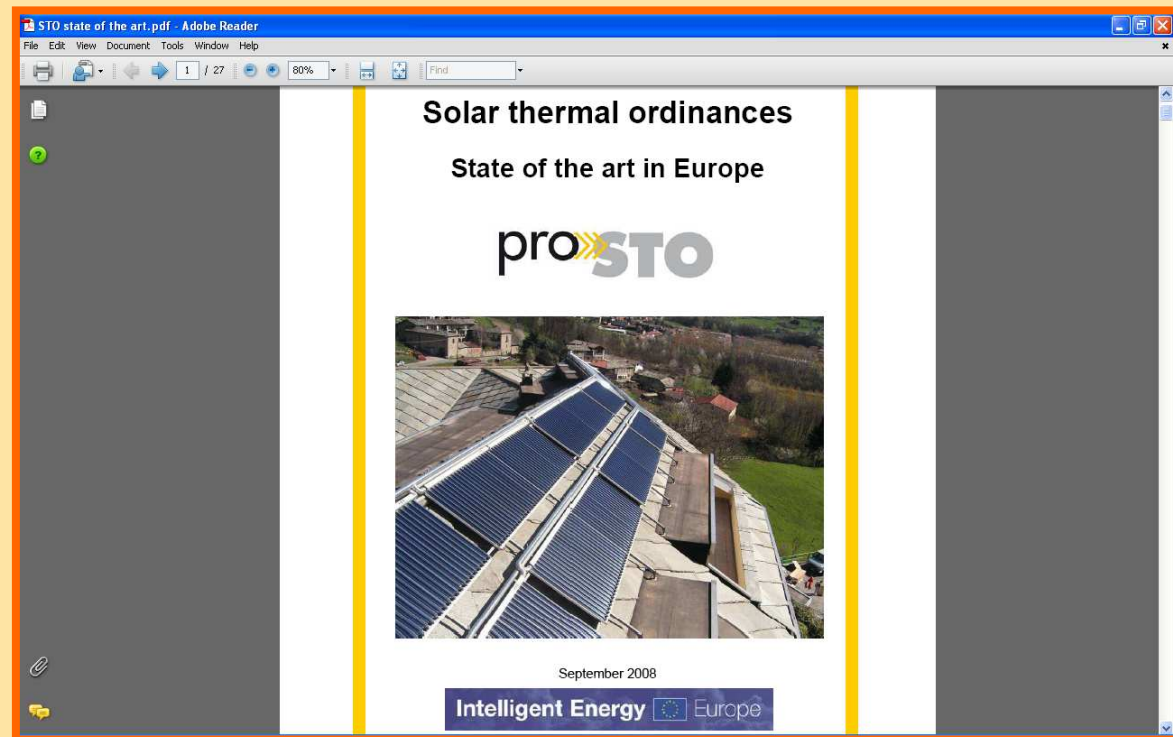
- STOs will spread very quickly in the next years from now on since...
- ...the new Directive on renewables stress *the use of minimum levels of energy from renewable sources in all new or refurbished buildings.*
- Currently several STOs are operating in Europe (Spain, Portugal, Italy, Austria, Germany) at local or national level...
- ...but they are not always working profitably and they need substantial improvements, since...
- ...“*Solar obligations fundamentally change the way the solar thermal market functions*” [European Solar Thermal Industry Federation, 2007]
- Therefore, new strategies have to be adopted and new issues have to be tackled with, e.g.
  - Proper quality assurance measures
  - Inspection checks and sanctioning fees
  - Actual applicability: clear, streamlined and simplified procedures

# OBJECTIVES AND MAIN STEPS

- ProSTO final objective is to enhance and promote the use of STOs as a powerful and fruitful measure for increasing the use of solar thermal energy in buildings
- Main performed activities:
  - Assessment of existing experiences on STOs in the EU and of the needs of the participating LA
  - Development and dissemination of tools for the fruitful implementation of efficient STOs
  - Preparation, implementation and monitoring of pilot STOs in the participating LAs; this pilot implementations are show cases and stimulate replication at European level

# OBTAINED RESULTS

- Success factors and barriers: the right “recipe” for developing efficient STOs





### Download STOs in pdf

[Heat Law Baden-Württemberg](#)

[Building Code of Carugate](#)

[Italian national law](#)

[Portuguese Regulation](#)

[Building code Rome](#)

[Regional obligation in Lazio](#)

[Energy Standards in Ireland](#)

[Código Técnico Spain](#)

[Decret Catalunya](#)

[Barcelona Solar Ordinance](#)

[Pamplona Solar Ordinance](#)

## STO Database

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### Renewable Heat Law Baden-Württemberg

*Federal State of Baden-Württemberg*

In November 2007 the parliament of the state of Baden-Württemberg approved its Erneuerbare-Wärme-Gesetz Baden-Württemberg (Renewable Heat Law Baden-Württemberg). Initially it effects only new residential buildings started after 1. April 2008, for which house builders are obliged to cover 20 % of the yearly heat demand with renewable heat sources. Beside the use of solar thermal, geothermal, biomass (including biooil and biogas) and ground coupled heat pumps the law also foresees alternative measures such as improved house insulation, cogenerators or the connection to district heating networks fed by RES or cogenerators. Starting from 1. January 2010 the law will also effect existing residential buildings, which, in the case of a modernisation of the central heating system have to reach a share of renewable heat of 10 % of the yearly heat demand.



[Show details »](#)

### Building Code of Carugate (Province of Milano)

*City of Carugate (Province of Milano)*

In 2003, the small (less than 15,000 inhabitants) Municipality of Carugate adopted a new building regulation which promotes energy efficiency in general. In particular, following the model of Barcelona "Solar Ordinance", the use of solar thermal systems to produce at least 50% of the domestic hot water demand was introduced.



# OBTAINED RESULTS



## The ProSTO toolbox

### Context

- Brochure
- Guidelines (“blueprint”)

### Baseline assessment

- Local situation
- Potential assessment

### SBC components

- Scope
- Calculation procedures
- Quality requirements
- Architectural integration
- Administrative procedures

### Support measures

- Information campaign
- Supporting demand side
- Supporting supply side
- Financing schemes
- Pilot plants

### Monitoring

- Monitoring the market
- Evaluating the internal procedure
- Assessing its own SBC

# OBTAINED RESULTS

- A set of 27 tools, available for free on the project web site in 6 languages, including:
  - The local law document containing the STO
  - A document specifying the quality requirements on the products or the quality criteria requirements on the installation
  - A document with calculation procedures (e.g. 50 % of the hot water load shall be covered by the solar thermal system and the load shall be calculated according to EN standard)
  - A document with procedures for quality check and sanctioning fees
  - A “blueprint”, which describes a step-by-step process on how to develop and implement a STO on local level
  - A catalogue of flanking measures, which could strengthen the impact of the STOs



## pro»STO

- Context
- Baseline Assessment
- Ordinance Components
- Flanking Measures
- Monitoring
- Project outcomes
- Presentations

You are here:  
**STO Toolbox**

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## STO Developers Toolbox

**The STO Developers Toolbox provides useful and practical tools to all those who are preparing, implementing or supporting a STO in their community.**

The various tools range from text proposals for the ordinance over background reports and best practice examples to software tools for mapping the potential of solar thermal in your community. New tools have been developed and already available instruments have been compiled by the ProSTO project partners.

The STO tools shall support you through the process as a whole of implementing a STO:

- In the **Context** section you find background information about STOs, communication tools and in particular many good reasons for a STO in your community.
- The **Baseline Assessment** section provides you with tools for analysing the status, potential and feasibility of a STO under your

# OBTAINED RESULTS

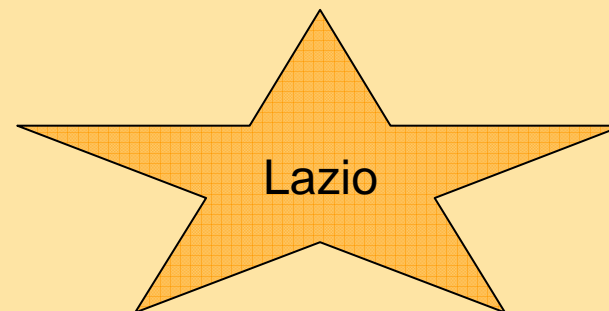
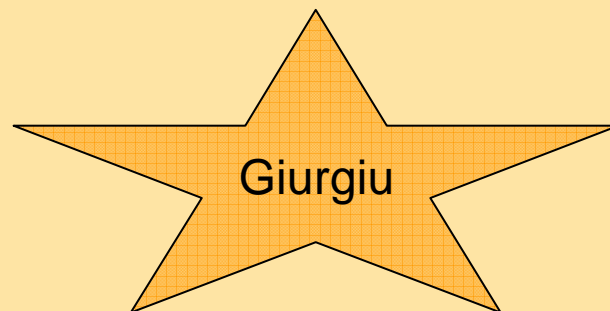
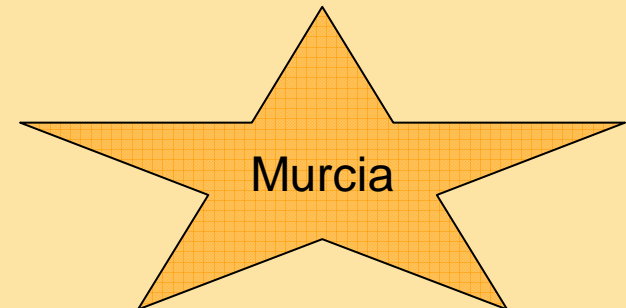
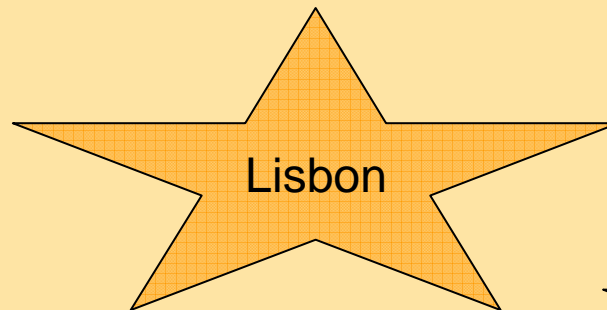
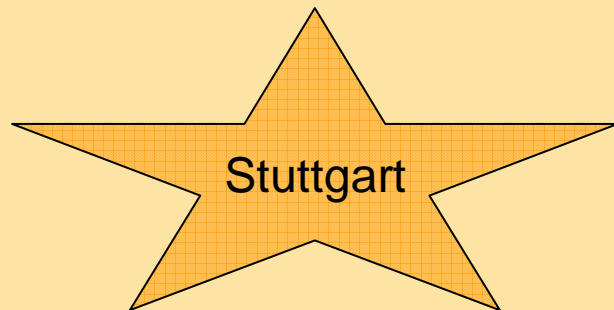


## The ProSTO blueprint

Guiding LAs step by step towards the STO...

# OBTAINED RESULTS

- 5 new and optimised STOs have been developed in the participating LAs



# PARTNERS & CONTACTS

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