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Identification of most promising markets and promotion of standardised system configurations for the market entry of small scale combined solar heating & cooling applications

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Solar thermal  
domestic hot water  
heating (DHW)

DHW

& space heating

Solar Combi

& space cooling

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**Main Aim:** Identify and promote standard system configurations for small scale (up to 20 kW) solar heating and cooling applications.

**Partnership:** 12 partners from 7 countries (Italy, Austria, France, Germany, Greece, Spain, Sweden) including the 5 leading European small scale sorption chiller producers.

**Approach:** To identify standard system configurations and most promising applications, the project proposes to perform **virtual case studies**, where promising system configurations are defined (based on a thorough analysis of the market) and validated by simulations and economical and ecological ratings for different typical conditions (i.e. utilization, climate, building type).



# Background

Small scale sorption chillers are now commercially available, but there are several non-technical barriers which can bother a smooth market entry:

- ① Combined solar heating & cooling needs **high effort in design stage**, which is not affordable for small applications
- ② Small scale sorption chillers are at the moment expensive due to **low production numbers**
- ③ Small scale combined solar heating & cooling is **not enough known by key actors**, such as installers and planners on the one side as well as public authorities and consumers on the other side



# Objectives & main steps

Proposed solutions to the barriers:

① High effort in design stage

→ Reduce design effort, identifying **standardised system configurations** (technology independent) and **package solutions** (for single chiller) through **virtual case studies**

② Low production numbers

→ Trigger application by identifying **most promising markets** (both in the sense of applications and regions)

③ Not enough known by key actors

→ Rise awareness with **targeted dissemination and promotion**, towards professionals (training, presentations), policy makers (pro-active approach) and end users (media campaigns)



## Expected results

**Standard system configurations**, which work best under different circumstances, are described in a **brochure** and disseminated to professionals

**Package solutions** for the single chiller technologies are broadcasted at fairs and taught in special **trainings** (focusing on solar thermal enterprises and installers)

**Most promising markets** are identified (both in the sense of applications and regions ) and promoted

**Knowledge among professionals** is increased, inter alia offering access to virtual case studies through an **online tool** enabling early decision on feasibility

**Awareness within public authorities** is enhanced, assistance for integration in support schemes and implementation of EPBD is given, **pilot installations** are initiated





# Partners & Contact

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SK Sonnenklima GmbH,

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Austria

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