

# QAiST

## Quality Assurance in Solar Heating and Cooling Technology

Standards & Certification

Brussels, 30 November 2009



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Thermal  
Industry  
Federation

## Objectives

- Speed-up of broad market penetration of solar thermal through removal of trade barriers
- Increase of the share of quality products in the solar thermal market
- Increase the uptake of solar thermal technologies not yet covered by EN standards and the Solar Keymark
- Stimulation of new collector and system designs and materials
- Increased exports through worldwide harmonisation of standards



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# Major Expected Outputs

- Clarification on durability and reliability requirements in the existing European standards for solar thermal products
- Continued assured quality of testing laboratories
- Harmonised approach on Function & Yield Control for large solar thermal systems
- Reduced testing costs for solar domestic hot water systems being part of a common “system family”



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# Partners

- ESTIF (coordinator)
- CENER, Spain
- CSTB, France
- DEMOKRITOS, Greece
- AIT, Austria
- LNEG/INETI, Portugal
- IPIEO, Poland
- ISE, Germany
- ISFH, Germany
- ITC, Spain
- IZES, Germany
- PlanEnergi, Denmark
- SP, Sweden
- TÜV, Germany
- USTUTT-ITW, Germany



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# Main Areas of Research

- Solar Thermal Collectors
- Solar Thermal Systems
- Quality Assurance of Testing
- New Areas for Quality Assurance



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# Tasks: Solar Thermal Collectors

- Test Method for Tracking and/or Concentrating Collectors (mid- temperature collectors)
- Durability testing and assessment of collectors and collector components
- A guideline to the standard EN 12975
- Performance calculation tool



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# Tasks: Solar Thermal Systems

- Factory made solar thermal systems
- Custom built solar thermal systems



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# Tasks: Quality Assurance of Testing

- Solar Keymark Network
- Round robin performance testing solar thermal collectors
- Round robin testing of factory made systems according to EN 12976



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# Tasks: New Area for Quality Assurance

- Performance references and test methods for Heat Pump + ST combi-systems
- Solar Cooling Systems
- Function and yield controlling (F&YC) of large solar thermal systems (LSTS)
- Quality requirements for solar cooling systems



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# Industry Involvement

- Clarification on durability and reliability requirements in the existing European standards for solar thermal products
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