European Solar Thermal Technology Platform specifies research needed to make solar thermal the leading energy source for heating and cooling in Europe

Brussels, 19 December 2008. A Strategic Research Agenda of the solar thermal sector was presented in Brussels today. The document, developed by more than 100 experts organized in the European Solar Thermal Technology Platform (ESTTP) describes the research efforts and infrastructure needed to reach the goal of supplying 50% of the energy needed for heating in cooling with solar thermal energy. A deployment roadmap shows the non-technological framework conditions that enable the reaching of this goal.

“Solar thermal can provide much more than just domestic hot water”, says ESTTP chairman Gerhard Stryi-Hipp.” Already today solar thermal systems combining hot water preparation and support to space heating are in wide-spread use in Central and Northern Europe. But to reach our goal of 50% of heating to be supplied by solar thermal energy, new applications have to be developed and deployed”.

Already in 2006, the ESTTP formulated its 2030 vision for low-temperature solar thermal. Since then, numerous experts from the industry and research sectors have worked on a Strategic Research Agenda (SRA) to implement this vision. The SRA identifies active solar buildings, active solar renovation, solar heat for industrial processes and solar heat for district heating and cooling as key topics for the rapid growth of solar thermal usage.

Amongst the main research challenges is the development of compact long-term efficient heat storages. Once available, they would make it possible to store heat from the summer for use in winter in a cost-effective way. The dramatic increase in recent years in the energy-density of electric batteries has led to many new applications, from lightweight portable computers and communication devices to electric cars. In the heating sector, the use of conventional energy sources could be drastically reduced, once new technologies using phase-change materials or thermo-chemical processes become widely available at low costs.

Basic research is needed also for improvements in solar cooling, high temperature solar collectors and solar water treatment.

The Steering Committee of the European Solar Thermal Technology Platform met on 15 December in Brussels and called on the European Institutions as well as the national governments to step up funding for low-temperature solar thermal applications. “The benefits of increased solar thermal energy usage are immense”, explains Mr Stryi-Hipp.” Supporting R&D into the next generation of solar thermal applications must have a high priority for governments everywhere

in Europe, because solar thermal is a key to reaching Europe's goal of 20% renewable energy by 2020!"

At their meeting, the Steering Committee also discussed the enlargement of the Platform to include in the future also biomass and geothermal energy. Representatives from these industries and from district heating and cooling discussed the first steps to setting up this Renewable Heating and Cooling Technology Platform.

About the European Solar Technology Platform (ESTTP)

Technology Platforms (TPs) are instruments created by the European Commission to bring together stakeholders in technology to strengthen Europe's leading position in certain technological fields. TPs are expected to have a decisive influence on European R&D politics.

This vision, deployment road map and research agenda is being developed by the European Solar Thermal Technology Platform (ESTTP). The ESTTP was set-up by the European Solar Thermal Industry federation (ESTIF) and the European Renewable Energy Research Centres Agency (EUREC Agency). About 100 leading experts in the field of solar thermal research cooperated to conceive and public this report.

Download the Strategic Research Agenda

- Full version – including executive summary - in English
- DE: Zusammenfassung ES: Resumen ejecutivo, FR: Synthèse, IT: Sintesi conclusiva

For more information on the ESTTP Platform, please visit: www.esttp.org or contact: Uwe Trenkner, Secretary General of ESTIF

European Solar Thermal Technology Platform
c/o ESTIF
Renewable Energy House
Rue d'Arlon 63-67
B-1040 Brussels
Tel: +32 2 546 19 38
Fax: +32 2 546 19 89
Email: info@estif.org
Website: www.estif.org

Number of words: 472
Number of characters (incl. spaces): 2659