

IEA TECHNOLOGY COLLABORATION PROGRAMME ON HEAT PUMPING TECHNOLOGIES

STRATEGIC PLAN 2018 - 2023



www.heatpumpingtechnologies.org



Vision of HPT TCP*

Heat pumping technologies play a vital role in achieving the ambitions for a secure, affordable, high-efficiency and low-carbon energy system for heating, cooling and refrigeration across multiple applications and contexts.

The Programme is a key worldwide player in this process by communicating and generating independent information, expertise and knowledge related to this technology as well as enhancing international collaboration.

Mission of HPT TCP

To accelerate the transformation to an efficient, renewable, clean and secure energy sector in our member countries and beyond by performing collaborative research, demonstration and data collection and enabling innovations and deployment within the area of heat pumping technologies.

Objectives

In 2023...

Energy Security

- Heat pumping technologies are frequently demonstrated and deployed in appropriate applications
- Heat pumping technologies are a key element in new cross-cutting, affordable solutions for heating and cooling

Economic Development

- The innovation rate for heat pumping technologies is increased
- Capacity building is improved
- Cost-effective solutions are identified, demonstrated and accepted by end users

Environmental Awareness

- More policy makers are aware of the potential of heat pumping technologies to fulfil the IEA's mission

Engagement Worldwide

- HPT TCP has more member countries
- HPT TCP is an active player in, or partner to, other international initiatives and organisations

* IEA's Technology Collaboration Programme on Heat Pumping Technologies (HPT TCP)

Strategy

Advance the RDD&D* of heat pumping technologies through

- creation of research opportunities
- providing networking possibilities and meeting places for academia, industry, private sector markets and policy makers to collaborate under new Annexes (projects) and activities within the HPT TCP.

Perform RDD&D activities within the areas of heating, cooling and refrigeration for the building, community, transport and industrial sectors while widening the scope to include to a larger extent:

- a. Affordable and competitive technologies for heating
- b. More efficient cooling and air-conditioning, especially in warm and humid climates
- c. Flexible, sustainable and clean system solutions (e.g. in urban areas) using combinations of heat pumping technologies with energy storage, smart grid, solar and wind energy, thermal networks, energy prosumers, etc.
- d. Possibilities offered by the developments in the area of digitalisation and Internet of Things
- e. New or special markets and applications, including automotive, industry and consumer products (e.g. white goods)
- f. New, alternative or natural refrigerants with lower global warming potential, high thermodynamic potential and low toxicity for both new and existing applications

Contribute to advanced and/or disruptive innovations through cross-cutting networking and collaboration with other TCPs and relevant organisations.

Communicate the results and impact from the RDD&D work, tailor the messages using appropriate channels to reach relevant target groups.

Provide IEA and standardisation organisations with reliable and independent guidance, data and knowledge about heat pumping technologies.

Increase activities to attract new members, including IEA key partner and association countries.

* Research, Development, Demonstration and Deployment



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Disclaimer

The HPT TCP is part of a network of autonomous collaborative partnerships focused on a wide range of energy technologies known as Technology Collaboration Programmes or TCPs. The TCPs are organised under the auspices of the International Energy Agency (IEA), but the TCPs are functionally and legally autonomous. Views, findings and publications of the HPT TCP do not necessarily represent the views or policies of the IEA Secretariat or its individual member countries.



Contact: Mr. Stephan Renz, HPT TCP Chairman

Beratung Renz Consulting

Phone +41 61 271 76 36

E-mail: renz.btr@swissonline.ch

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**Contact: Dr. Monica Axell, HPC General Manager
Heat Pump Centre (HPC)**

c/o RISE Research Institutes of Sweden

Box 857, SE-501 15 BORÅS, Sweden

Phone +46 10 516 55 19

E-mail: hpc@heatpumpcentre.org monica.axell@ri.se

www.heatpumpingtechnologies.org