Technology Collaboration Programme
by IEA

heatpumpingtechnologies.org

HPT TCP National Experts' meeting 2026

Tuesday, October 27, 13-16 CET, online



Welcome!
Meeting instructions

- Please mute your microphone when not speaking
- While speaking you are welcome to have your camera switched on
- Please write your name and country in your profile (click on the three dots to edit)
- Slides showed will be distributed after the meeting
- The meeting (main room) will be recorded to facilitate the meeting minutes

Hosts of the meeting

- Caroline Haglund Stignor, Heat Pump Centre, RISE
- Metkel Yebiyo, Heat Pump Centre, RISE

Co-hosts of the meeting

- Monica Axell, Heat Pump Centre, RISE
- Mia Westh, Heat Pump Centre, RISE
- Elin Svensson, RISE
- Markus Lindahl, RISE

Agenda

- **Welcome and introduction** – *Caroline Haglund Stignor and Metkel Yebiyo, HPC*
- **Existing ideas and proposals in the pipeline**
  - **Heat Pumps in action! Operating heat pumps in multi-family residential buildings** (follow-up on Project 62) – *Kyra Sophie Rimrodt, Heatpumpswatch, Germany*
  - **Heat pumps for hydrogen and carbon capture** – *Veronika Wilk, AIT, Austria*
  - **CLImate-friendly COmfort units with focus on NATural refrigerants** – *Serena Danesi, Zhaw, Swtizerland*
  - **Energetic Optimization of Multi Use Waste Energy Heat Pumps** – *Anne Hartmann, ITG-Dreseden, Germany*
  - **Advancing HP circularity: business potentials and technological requirements/needs/challenges** (follow-up on Project 65) – *Esben Vendelbo Foged, DTI, Denmark*
  - **Safe Use of Refrigerants in Heat Pumping Technologies** (follow-up on Project 64) – *Thore Oltersdorf, Fraunhofer, Germany*
- **Short break**
- **Workshop and group discussions** – *All*
  - To identify research gaps, possibilities and challenges related to heat pumping technologies which could be further explored in future collaboration projects within HPT TCP.
- **Summing up** – *Caroline Haglund Stignor and Metkel Yebiyo, HPC*

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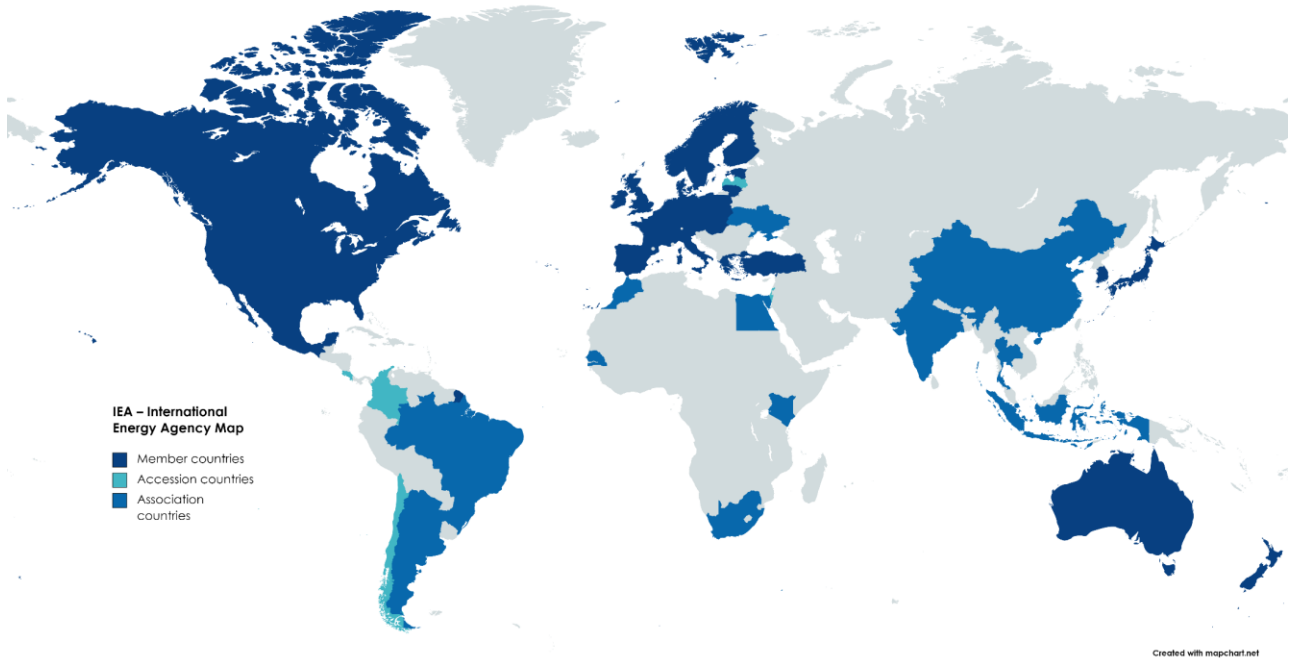
Technology Collaboration Programme on Heat Pumping Technologies (HPT TCP)

Research, Development, Demonstration, and Deployment of Heat Pumping Technologies

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 organized 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.

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International
Energy Agency



Source: https://en.wikipedia.org/wiki/International_Energy_Agency

The **intergovernmental organisation** that provides **energy data, analysis, and policy recommendations** to help countries **ensure energy security** and **accelerate the transition** to sustainable energy systems

The IEA TCPs



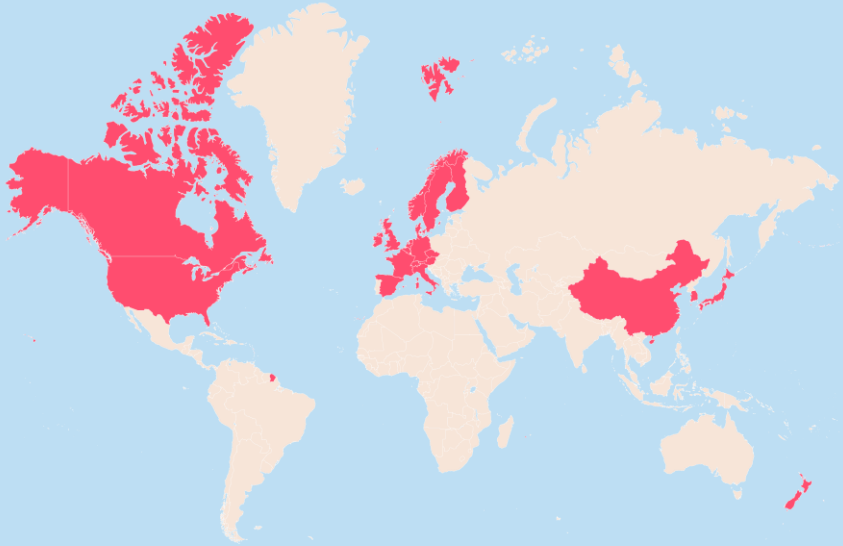
Image by qimono from Pixabay

38 **global networks** aiming to accelerate **energy innovation** through cooperation among **governments, industry and experts** since 1975**.**

- Lead by **independent expert groups**
- **Advance research, development and commercialisation**
- Delivering **pilots, databases** and **standards**.

The topics span over **renewables**, smart grids, hydrogen, carbon capture, fuels and **energy efficiency**.

About Heat Pumping Technologies TCP



Austria
Belgium
Canada
China
Czech Republic
Denmark
European Commission
Finland
France
Germany
Ireland
Italy
Japan
Netherlands
Norway
South Korea
Spain
Sweden
Switzerland
United Kingdom
United States
New Zealand (limited sponsor)

- A Technology Collaboration Programme (TCP) within **the IEA** since **1978**
- An international framework of **cooperation** and **networking** for different HPT actors
- A forum to exchange **knowledge** and **experience**
- A contributor to **technology improvements** by RDD&D projects

Heat Pumping Technologies

heatpumpingtechnologies.org

Includes:

- Heating and cooling
- Air conditioning and dehumidification
- Refrigeration

Covers applications in

- Residential and commercial buildings
- Industries
- Thermal grids in cities and communities
- Other applications



Organisation

Executive Committee: The board of HPT TCP - one vote per member country

National Teams: Organisations representing national HPT activities. A forum for discussion networking and creation of new ideas. Meet at joint National Experts meetings.

The Heat Pump Centre: The central communication activity of HPT TCP

Collaboration projects: Elaborating new knowledge through collaborative RDD&D work



HPT TCP – Organisation & management

Creating new Annexes

Executive Committee

mandate

Project 70
Project 69
Project 68
Project 67
Project 66
Project 65
Project 64
Project 63
Project 62
Project 61
Project 59
Industry
University

Elaborating knowledge in Projects

NT National Teams

Ideas

Proposals

Heat Pump Centre

information/reports

management/control

Every 3 years

IOC ExCo-Members

NOC

15TH IEA HEAT PUMP CONFERENCE MAY 26-29, 2026 | HOFBURG VIENNA 2026

Collaborating, Exchange Contribution to Conference

Technology Collaboration Programme by IEA

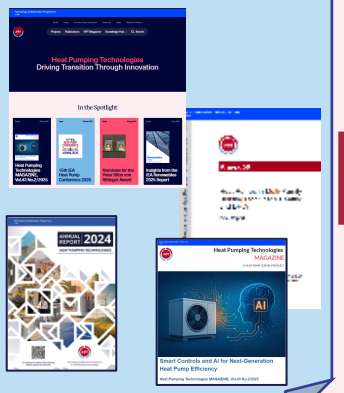
ehpa european heat pump association

EUROPEAN HEAT PUMP SUMMIT POWERED BY CHILLVENTA

International Institute of Refrigeration (IIR)

MISSION INNOVATION

Publications



Better technology

Industry & Market incl. Associations







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Communication and Dialogues

Information dissemination and communication

- Publications (e.g. project reports)
- HPT Magazine and Newsletter (digital)
- Website: www.heatpumpingtechnologies.org
- Workshops and webinars
- Social media: LinkedIn and WeChat

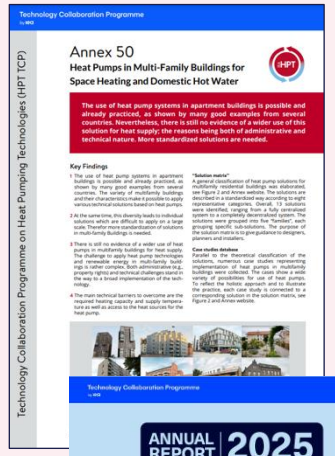
IEA Heat Pump Conference

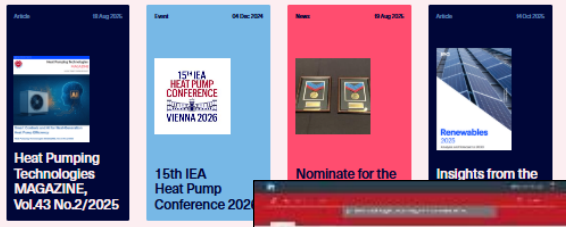
- Organized every 3rd year
- **Next: 2029 in Copenhagen**

And

- **National Experts meetings**
- Support to IEA publications
- Outreach activities





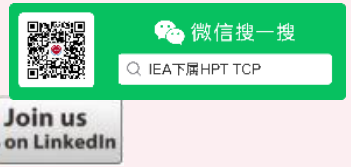












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Presentation of project proposals/ideas

Already in the pipeline….

RDD&D Priority Areas 2023-2028 - International collaboration projects

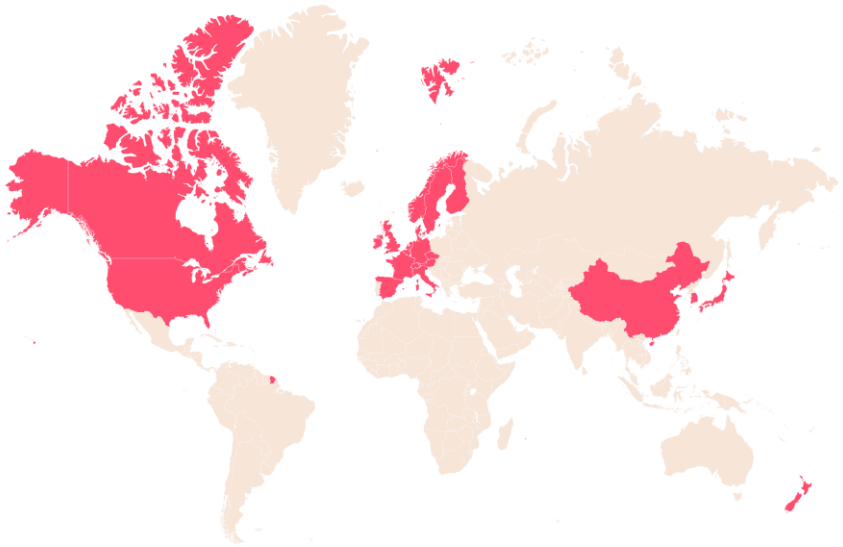
System integration	Robust, sustainable, affordable value chains	Extending operation range and applications	Refrigerants and new technologies
			 
• **Project 61**: Heat Pumps in Positive Energy Districts • **Project 67**: Digital Services for Heat Pumps • **Project 70:** Flexibility from Large-Scale and Aggregated Heat Pump Systems **NEW** • **Heat pumps for hydrogen and carbon capture** • **CLImate-friendly Comfort units with focus on NATural refrigerants**	• **Project 63:** Placement Impact on Heat Pump Acoustics • **Project 65:** Heat Pumps in a Circular Economy • **Project 66:** Optimal Heat Pump Design and Operation for Broader Acceptance • **Project 69:** Enhanced Miniaturized Components **NEW** • **Energetic Optimization of Multi Use Waste Energy Heat Pumps** • **Advancing HP circularity: business potentials and technological requirements/ needs/challenges**	• **Project 59:** Heat Pumps for Drying • **Project 60:** Retrofit Heat Pump in Larger Non-domestic Buildings • **Project 62:** Heat Pumps in residential multifamily buildings in cities • **Project 68:** Industrial High Temperature Heat Pumps • **Heat Pumps in action! Operating heat pumps in multi-family residential buildings**	• **Project 64:** Safety Measures on Flammable Refrigerants • (Monitoring of Advanced Vapor-Compression and non-Vapour-Compression Technologies for Heating, Cooling and refrigeration) • **Safe Use of Refrigerants in Heat Pumping Technologies**

Existing ideas and proposals in the pipeline

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How does it work in HPT TCP?

Interested in joining a proposed project?

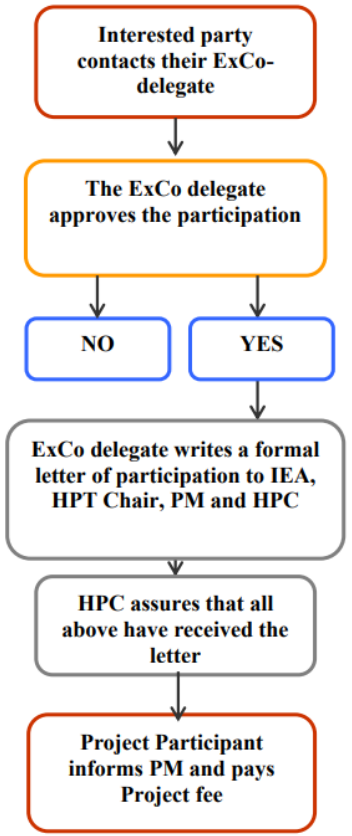


Austria
Belgium
Canada
China
Czech Republic
Denmark
European Commission
Finland
France
Germany
Ireland
Italy
Japan
Netherlands
Norway
South Korea
Spain
Sweden
Switzerland
United Kingdom
United States
New Zealand (limited sponsor)

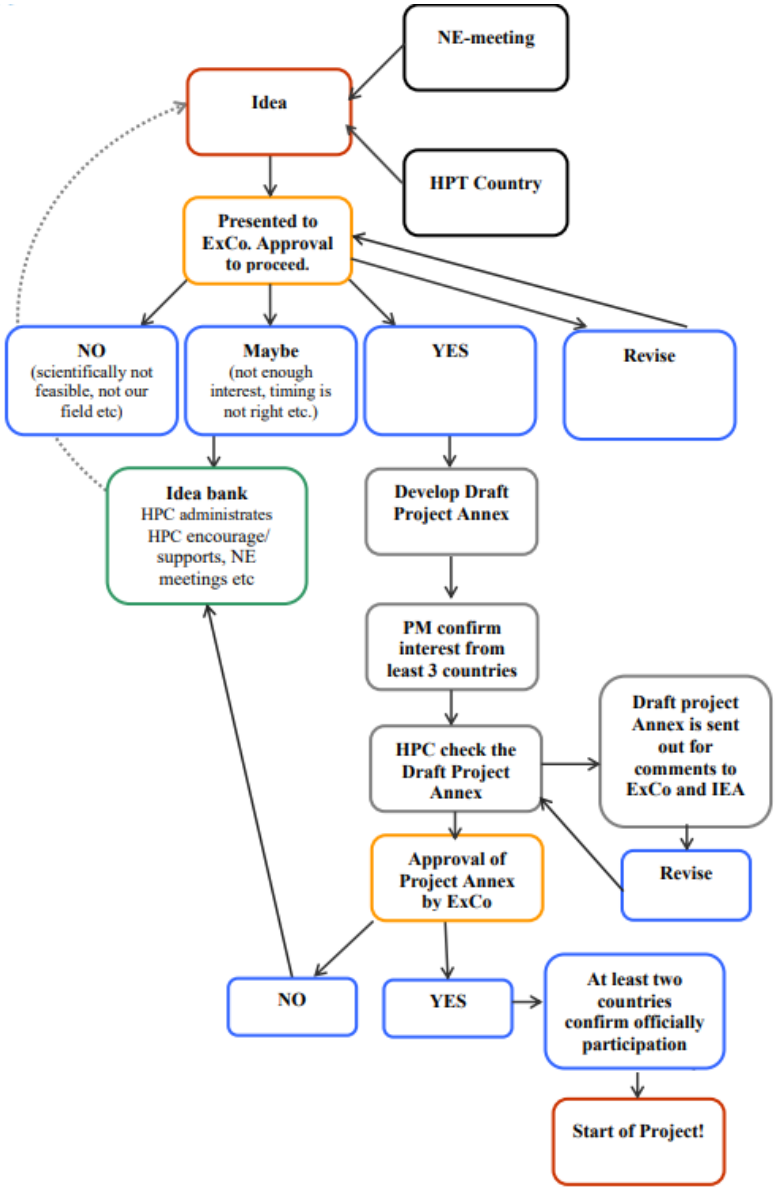
- Experts from a **member country** of HPT TCP can join an HPT Project
- Requires **approval** from the **delegate** of the country
- Additional possibility for organizations from **non-member** countries to join as **limited sponsors**
- Participants need to **secure funding** (nationally) for their work
- The work of the Project Managers is **co-funded** by all the project participants (co

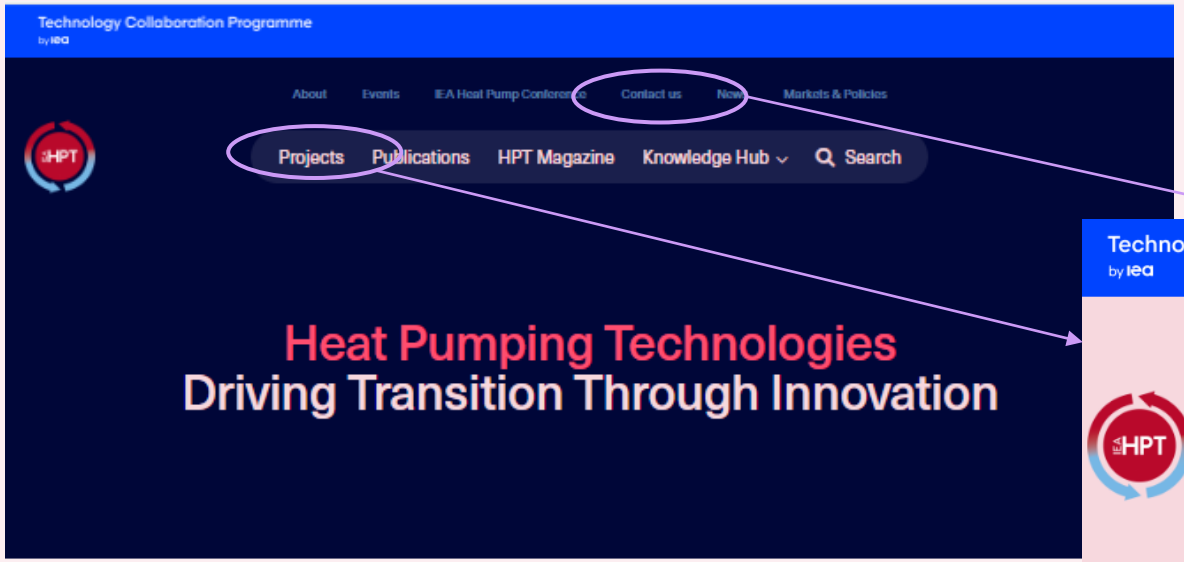
How does it work within HPT TCP?

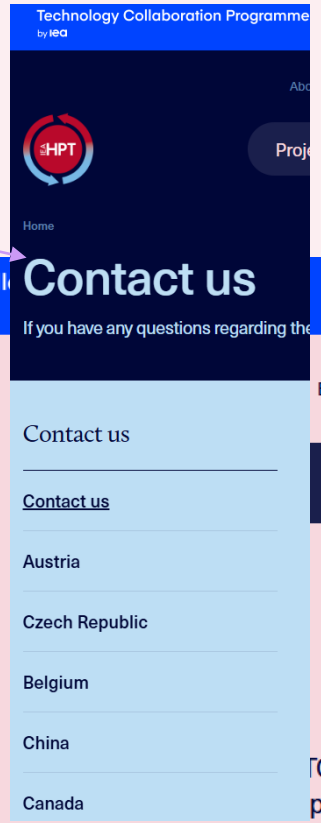
Joining and HPT Project



Starting an HPT Project







In the Spotlight









COFFEE BREAK

Please be back at 15.00 CET

HPT TCP STRATEGIC WORK PLAN 2023-2028



Vision

Heat pumping technologies are the cornerstone for a **secure, affordable, high-efficiency, clean** and **net-zero emission energy system** for **heating, cooling** and **refrigeration.**

We are the **key worldwide independent actor** to achieve this vision across **multiple applications** and **contexts**. We generate and **communicate information, expertise and knowledge** related to heat pumping technologies as well as enhance **international collaboration**.

Mission

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.

Strategic Initiatives (1)

Advance the RDD&D of heat pumping technologies through the creation of research opportunities, networking and meeting places for **academia, industry, market actors, investors and policymakers** to collaborate under new HPT Projects and other activities



Contribute to advanced and/or disruptive innovations through cross-cutting networking and collaboration with other TCPs, IEA, Mission Innovation and other relevant organizations, attracting new actors



Communicate the results and impact from the RDD&D work, tailor the messages and the dialogue using selected channels to reach **relevant target groups**, including *policymakers, energy and environmental agencies, investors, utilities, manufacturers, city and building planners, system designers, architects, industry associations, installers, researchers and end-users*.



Arrange a high-quality conference every third year as the most important networking place.

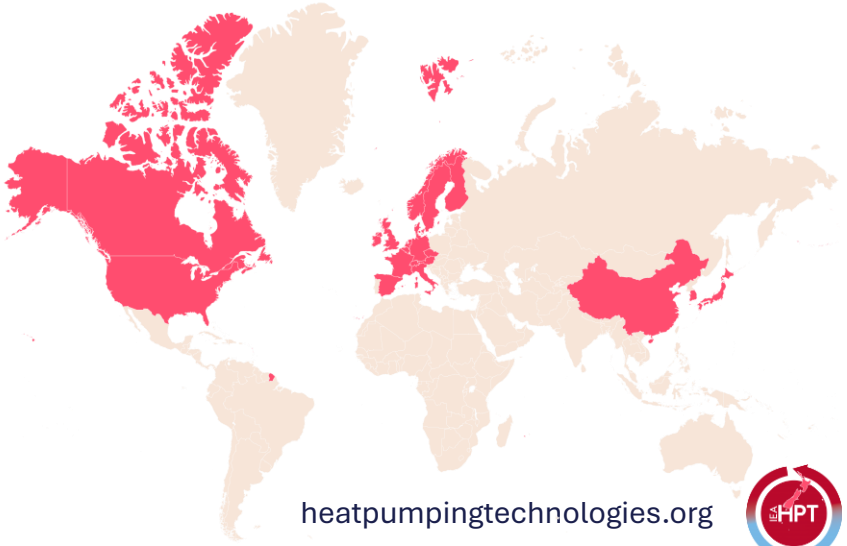
Strategic Initiatives (2)

Providing and enlarging a dialogue platform to share and report back experiences to those stakeholders and actors who could benefit from such knowledge.



Provide IEA, standardisation organisations and regional or national policy makers with reliable and independent guidance, data and knowledge about heat pumping technologies, separately or in combination with other technologies.

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



RDD&D Priority Areas 2023-2028

System integration	Robust, sustainable, affordable value chains	Extending operation range and applications	Refrigerants and new technologies
			 
Sector coupling, energy efficiency, flexibility, resilience, storage, digitalization, positive energy districts	Improving affordability, securing value chains, circular economy, removing barriers for mass deployment	To fulfill demand from all climate zones, new markets, new applica-tions and new demand.	Non-traditional heat pumping technologies (heating and cooling) Refrigerants (low GWP, safety etc.)

RDD&D Priority Areas 2023-2028 - International collaboration projects

System integration	Robust, sustainable, affordable value chains	Extending operation range and applications	Refrigerants and new technologies
			 
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Group discussions

Breakout rooms according to RDD&D themes in SWP

RDD&D Priority Areas 2023-2028

Room 1 System integration	Room 2 Robust, sustainable, affordable value chains	Room 3a and 3b Extending operation range and applications		Room 4 Refrigerants and new technologies
				 
Sector coupling, energy efficiency, flexibility, resilience, storage, digitalization, positive energy districts	Improving affordability, securing value chains, circular economy, removing barriers for mass deployment	To fulfill demand from all climate zones, new markets, new applica-tions and new demand.		Non-traditional heat pumping technologies (heating and cooling) Refrigerants (low GWP, safety etc.)
Host of room 1 Elin Svensson	**Host of room 2** Monica Axell	**Host of room 3a** Caroline Haglund Stignor	**Host of room 3b** Markus Lindahl	**Host of room 4** Metkel Yebiyo

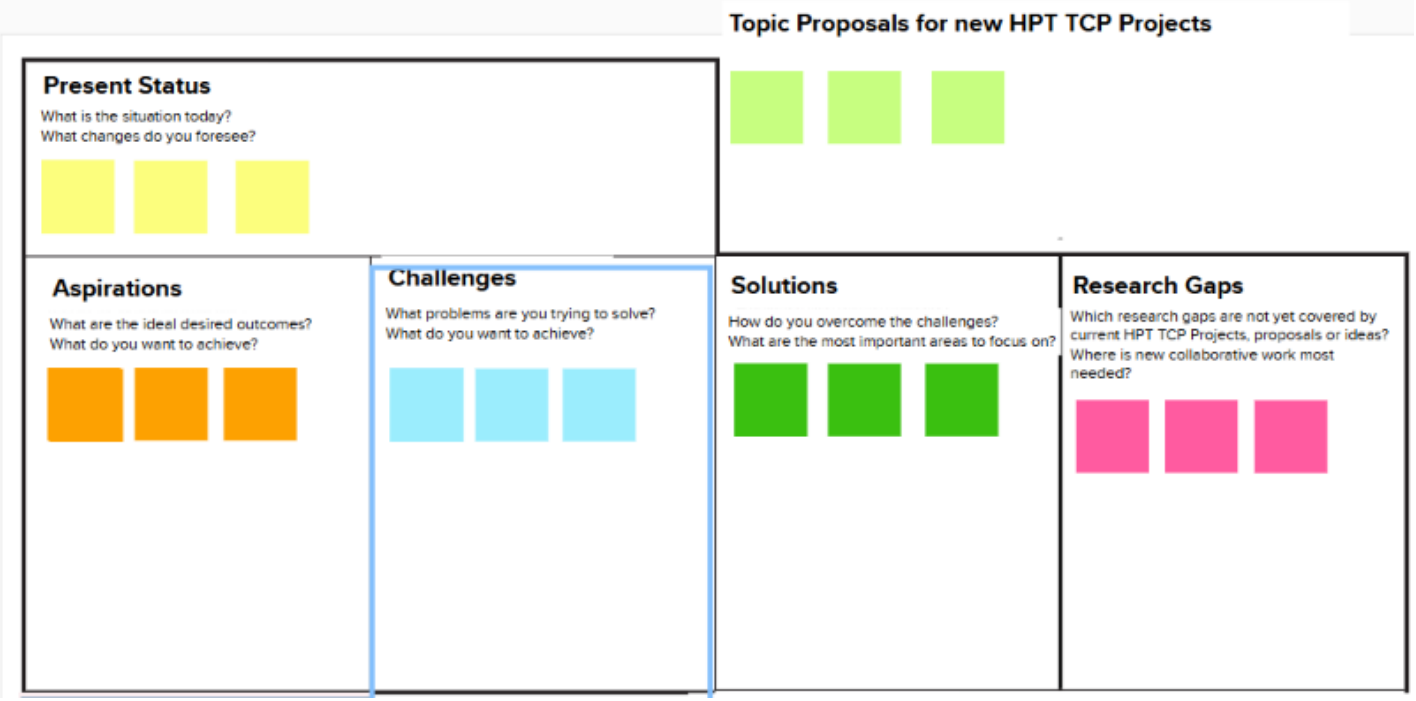
Instructions

- If you have preselected a room – you will be automatically moved to that room
- If you have not preselected – please choose room according to your preferences
- Mia Westh will remain in the main room and can support you
- Group discussions will take place in the breakout rooms, and you are all welcome to write notes in a MURAL (link in chat)
- We will all be back in the main room for a short reporting back, at 15.40 CET

MURAL

System Integration

Sector coupling, energy efficiency, flexibility, resilience, storage, digitalization, positive energy districts



MURAL

Room 1
Elin

System Integration



Room 2
Monica

Robust, sustainable and affordable value chains



Room 3a
Caroline

Extending operation range and applications



Room 4
Metkel

Refrigerants and New technologies



Room 3b
Markus

Extending operation range and applications

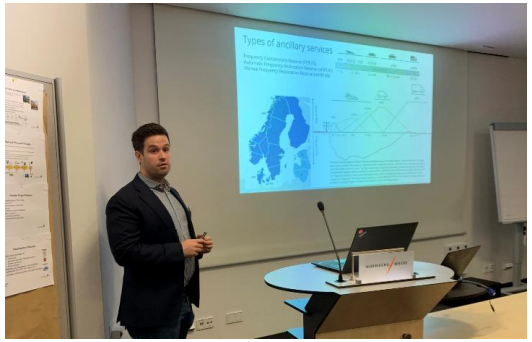


Reporting back

2 minutes per group

Hope to see you again next year!













Stay updated!

Meet us on LinkedIn

Sign up for free!
HPT Magazine and
HPT Newsletter

Heat Pump Centre – programme office and communication centre of HPT TCP

The team



Dr. Caroline Haglund Stignor

Co-lead



Dr. Monica Axell

Co-lead



Dr. Metkel Yebiyo

Technical Expert



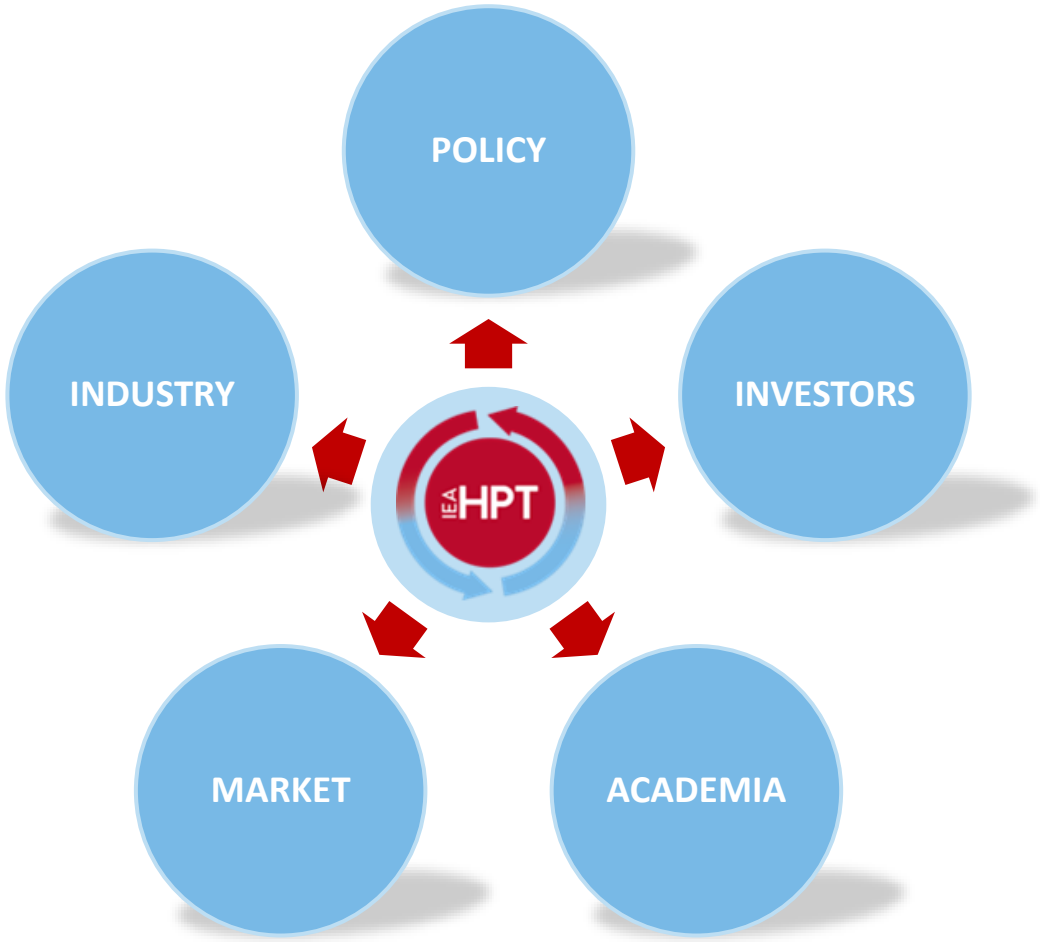
Mia Westh

Communications Specialist



Emilia Pisani Berglin

Programme Coordinator



IEA HPT TCP Executive Committee

Stephan Renz (Chairman)

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Emilia Pisani Berglin (Coordinator)

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heatpumpingtechnologies.org

Many thanks for your participation and contributions today!

