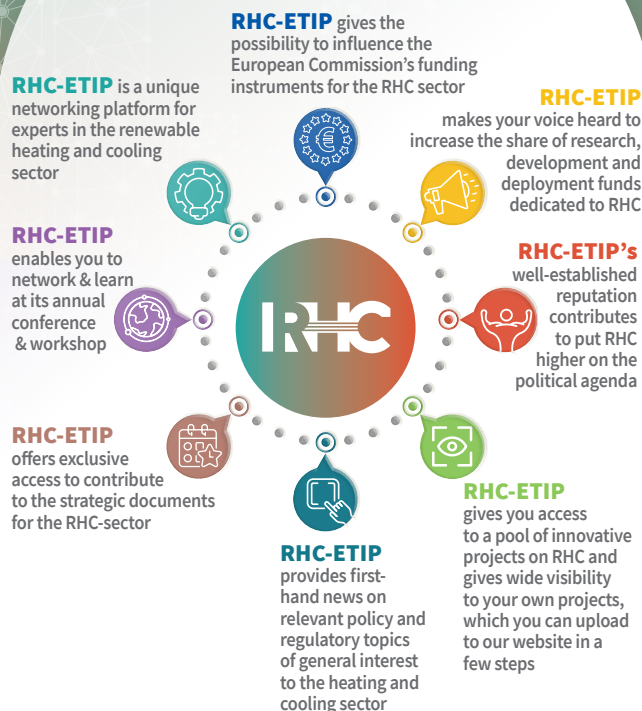


Benefits of being an RHC-ETIP member



Join us today and shape the future of RHC in Europe!

Take an active role in shaping Europe's future strategic and research priorities for the renewable heating and cooling sector: **become a member of the RHC-ETIP**

How to join?

The membership of the RHC-ETIP is free of charge and on a voluntary basis. To apply, please visit www.rhc-platform.org and fill in the online application form.

Questions?

Contact us via info@rhc-platform.org

RHC Renewable Heating & Cooling
European Technology and Innovation Platform

PARTNERS & EXPERTISE FIELDS



EUREC & BIOENERGY EUROPE coordinate the Secretariat of the European Technology and Innovation Platform on Renewable Heating and Cooling.



It coordinates the Biomass Technology Panel & the 100% RE Buildings Horizontal Working Group



It coordinates the Geothermal Technology Panel & the 100% RE Cities Horizontal Working Group



It coordinates the Heat Pump Technology Panel



It coordinates the District Heating and Cooling and Thermal Energy Storage Technology Panel & the 100% RE Districts Horizontal Working Group



It coordinates the Solar Thermal Technology Panel & the 100% RE Industries Horizontal Working Group



The Secretariat of the European Technology and Innovation Platform on Renewable Heating and Cooling is a project that has received funding from the European Union's Horizon 2020 research and innovation programme under the grant agreement N°825998.

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The European Technology and Innovation Platform on Renewable Heating & Cooling

RHC Renewable Heating & Cooling



A unique and powerful ETIP covering all the renewable heating and cooling technologies

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THREE STRATEGIC DOCUMENTS DEVELOPED IN THE PAST THREE YEARS

2050 vision for 100% renewable heating and cooling in Europe

100% renewable energy-based heating and cooling (100%RHC) in Europe IS POSSIBLE by 2050. The real challenge is to set up coordinated strategies at European, national, and local levels to reduce fossil fuels to zero by 2050.

RHC technologies are mature, commercial, and market ready, today.

They will be continuously developed for increasing their performance and competitiveness. However, without strong political support to speed up the market uptake of these solutions, the 2050 vision will hardly become reality. The subsidiarity principle requires local leadership along with guidance at European and national levels.

It is unanimously concluded by the members of the European Technology and Innovation Platform on Renewable Heating and Cooling (RHC-ETIP) that this vision can only be reached with a **very strong and resolute political** will to change the H&C sectors towards **100% renewables** and **zero carbon dioxide (CO₂) emission sources** – together with a persistent integration of the electricity sector under the terms of a level playing field.

➔ **Courageous political decisions are needed immediately to accelerate the ending of fossil fuels.**

Strategic research and innovation agenda for climate-neutral heating and cooling in Europe

The provision of **100% renewable energy-based heating and cooling (100%RHC) in buildings, districts, cities, and industrial processes in Europe is achievable even by 2040.**

Today's decarbonisation strategy tends to emphasise electrification. However, a dramatic increase in electric H&C and electric mobility would require costly upgrades to distribution networks. While for mobility, this may be unavoidable, **a fully carbon-neutral H&C sector is possible with currently available thermal RHC technologies.** Today, H&C is thermally driven and it should remain this way in the future.

The Strategic Research and Innovation Agenda responds to the need for an **update of the priorities** identified in 2013 and the need to **push RHC technologies** to centre stage in order to achieve carbon-neutrality by 2050 at the latest. It presents the main R&I priorities to overcome current and imminent societal, technological and industrial challenges facing RHC.

Raising the public-private expenditure for RHC research to the average annual level **close to EUR 2 billion is crucial to achieve RHC's full potential.** To this end, support is required at the EU level through different funding instruments, which should dedicate to RHC R&D the attention and resources the sector deserves.

➔ **By investing in the ambitious RHC priorities presented in this document, the EU H&C sectors can achieve decarbonisation within the next 20 years.**

Strategic report on implementation of research and innovation priorities and deployment trends of the renewable heating and cooling technologies

This report offers an insight into the Renewable Heating and Cooling (RHC) community's research, development, and innovation activities and trends. Its findings indicate that priorities identified in the previously published RHC SRIA are well aligned with the RD&I priorities of the RHC stakeholders and are to a large extent being implemented.

The report indicates **a clear trend towards cross-cutting technologies, sector coupling, and integrated or hybrid systems, which would increase optimisation and efficiency. Findings also showed a trend towards a greater inclusion of and cooperation with other renewable technologies**, particularly hydrogen-based renewable energy systems but also encompassing waste heat recovery, district heating (DH) and district cooling (DC), and thermal energy storage.

Finally, RHC sectors are looking to increase the digitalisation of their technologies, such as through smart control distribution systems.

➔ In terms of RHC stakeholders' R&D spending, there appears to be **a trend towards investing a greater amount of revenue into RD&I activities in RHC.**

The findings of this report point towards either an increase in funding or a stagnation over the past 3-5 years. Funding amounts seem to remain the same or increase further in the next few years.