RE-WITCH aims at demonstrating transformative technological solutions that unlock the combined potential of low-grade waste and renewable heat use in industries, hence also targeting integration of heat-to-cold technologies into relevant EU policies.
The overarching aim of RE-WITCH is to deliver cost-competitive, game-changing solutions in the field of sustainable industrial cooling and heating. To do so, RE-WITCH will demonstrate advanced thermally-driven industrial cooling technologies based on ADsorption and ABsorption processes driven by an optimized mix of low-grade waste and renewable sources (Optimized techno-economic integration between low-grade (<100 °C) industrial waste heat and high-efficiency vacuum flat plate solar collectors, to drive process cooling generation and provide process heating).

European funding 4 years 26 partners 10 countries 4 demo cases €9.5 million

Such solutions will be demonstrated in 4 demo sites encompassing food and beverage sectors as well as industrial sectors where heat-to-cold solutions are not yet widely explored:

- bio-refinery,
- food and beverage,
- pulp and paper.

RE-WITCH will be complementing the demonstration with 3 replication sites, covering other possible relevant sectors (DHN-connected industries, data centers), investigating RE-WITCH potential applications and benefits.

The project will be delivered by an industrial-driven consortium of 26 partners from 10 countries and it is composed by some of the most innovative SMEs, LES and R&D centers in the field of industrial renewable H&C leveraging experience from industrial and EU-funded projects. The multi-disciplinary composition of the consortium ensures that all the challenges (technical and non-) will be addressed to ultimately bring RE-WITCH solutions to the market by 2029. Innovative open access modelling platforms and engineering solutions will also be developed to facilitate the design, upscale, replication and integration in industrial processes of the proposed technologies. Thanks to a stakeholders’ driven dissemination and communication campaign, RE-WITCH will ultimately demonstrate transformative technological solutions that unlock the combined potential of low-grade waste and renewable heat use in industries, hence also targeting integration of heat-to-cold technologies into relevant EU policies.

Our partners

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