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## Smart networks integrating renewable and waste energy sources Newsletter #1 March 2020

In urban areas, where heat demand is highest, there is a large amount of renewable and waste heat freely available. Why use fossil fuels to heat our buildings when these viable alternatives exist?

REWARDHeat aims to demonstrate a new generation of low-temperature district heating and cooling networks, which will be able to recover renewable and waste heat available at low temperature.

Focusing on the exploitation of the energy sources available within the urban context allows the decentralized solutions developed in the project to be replicated across Europe.

With demonstration sites in 7 countries, the H2020 project will promote punctual metering, thermal storage management and network smart control as means to enable and optimise the exploitation of renewable and waste heat in DHC networks.

Read our first newsletter to find out more about the project and our ongoing activities!

**Project Objectives** 

- Integrate effectively multiple urban renewable and excess energy sources.
- Develop innovative technologies for flexible use of heat in DHC networks.
- Demonstrate digitalisation solutions to optimise the management of DHC networks.
- Develop business models and financial schemes to enable large public and private investment to be mobilised.

#### **Demonstration Sites**

REWARDHeat is a flagship initiative showcasing the best examples and practices of integrating renewable and waste heat resources into district heating and cooling networks. With 7 demo sites, across 7 different countries, the project will develop innovative solutions that can be replicated across the EU.



- The Alberslund demo in Copenhagen, which supplies heat to 300 apartments, will demonstrate moving from 3rd generation, centralized, high-temperature (85°C)
  DH supply to low-temperature (60°C) supply, with a mix of central and local heat production.
- 2. The Topusko demonstrator, fuelled by geothermal wells, is an example of a transition from an inefficient DH network, without return line, to a modern system.
- 3. The Hamburg demonstrator consists of a network that will cover approximately 2000 newly built flats. Additionally, it is planned to build a hotel and other services buildings. The entire development will be fossil fuel free.
- 4. The demonstrator at La-Seyne-sur-Mer is an existing neutral-temperature district heating and cooling network, based on seawater as energy source. By 2020, the system will have over 20 customers
- 5. Milan boasts a newly built demonstrator, mainly driven by geothermal water from wells set up during project elaboration. Initially, 4 large tertiary buildings will be provided with heating and cooling. In addition to the underground water, heat will also be recovered from the quarter electric feeder.
- 6. In Raa, following the disconnection of South Helsingborg from gas, a new neutral-

#### Did you see us?

Consortium partner, European Heat Pump Association (EHPA), has showcased the REWARDHeat project at several events, via official booths, their poster and face-to-face discussions. These events include the European Heat Pump Summit on 22 October 2019 in Nuremberg, Germany (pictured), the DecarbCities events on 24-25 February in Vienna and the EHPA Heat Pump showcase, which took place in Brussels in December 2019.





#### **Upcoming Events!**

We'll be at the Sustainable Places 2020 events taking place in Aix-les-Bains on 28-30 October 2020. Join us for a workshop on integrating renewable energy into district heating and cooling networks.

## Website coming soon!



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