

About D2Grids

Objective:

Increasing the share of renewable energy in North-West Europe's heating and cooling sector by **accelerating the roll out of 5th generation district heating & cooling.**

How?

Industrialisation:

Producing a standardised technological model, increasing the adaptability and replication of 5GDHC systems.

Commercialisation:

Clarifying the business model of 5GDHC and promoting 5GDHC towards the industry.

Education:

Developing training modules and courses to develop a skilled workforce for building and maintaining 5GDHC technologies.

Pilot sites:

Demonstrating and testing 5GDHC technology through 5 demonstrators.

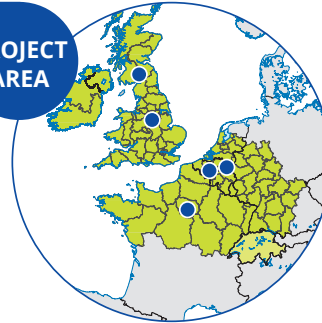
Timeline:

October 2018 to April 2022

Project:

This €19.3 million project is cofounded by the European Regional Development Fund for 60% of the total budget (€11.6million).

PROJECT AREA



5 pilot sites

- Bochum (DE) • Brunssum (NL) • Glasgow (UK) • Nottingham (UK) • Paris-Saclay (FR) •

Lead partner



MINE WATER, A BASIS FOR SUSTAINABLE ENERGY

WWW.MIJN WATER.COM

Project partners



Subpartners



Interreg



North-West Europe

D2Grids

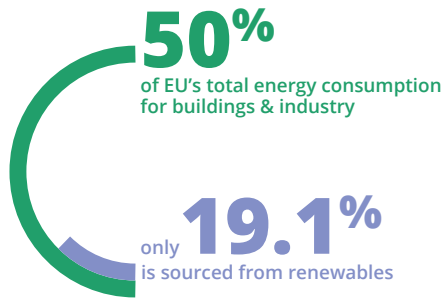
European Regional Development Fund



Decarbonising urban building stock with 5th Generation District Heating and Cooling.

@D2Grids
#5GDHC

Heating & cooling: a key sector to develop renewable energies in Europe.



To increase the share of renewables in EU's heating and cooling sector, D2Grids will roll out a proven but underutilised concept: 5th generation district heating and cooling (5GDHC).

The Mijnwater experiment

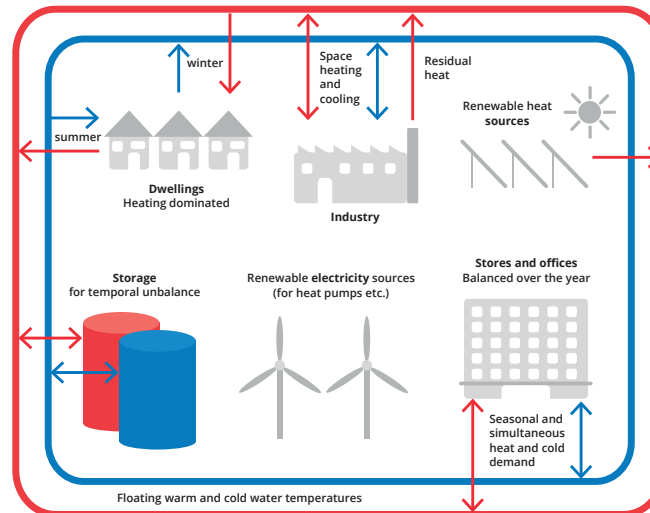


- 5GDHC is already implemented on the Mijnwater grid in Heerlen, Netherlands.
- Since 2008, the heating and cooling grid of Mijnwater uses flooded mineshafts as a low-temperature geothermal source (about 30°C) and storage.
- The project partners will use this first experience to develop the concept and test new solutions.

What is 5GDHC?

5GDHC is an urban thermal energy grid for heating and cooling, based on the following principles:

- 1 Ultra-low temperatures close to end-user needs**
Allowing the use of waste heat and other renewable energy sources.
- 2 Integrated heating & cooling supply, based on a closed loop twin pipe system**
Enabling heating and cooling exchange between end-consumers.
- 3 Integrated heat and power networks**
5GDHC utilises thermal mass of buildings and soil to reduce powerpeaks.
- 4 Demand-driven temperature rise through smart control, data mining and decentralised installations**
The highest temperature level is only produced where and when needed.



Keep yourselves informed on 5GDHC!

5GDHC technology can be adopted to all types of thermal energy sources. **D2Grids will provide industrials, professionals, and policy-makers with tools to develop 5GDHC in their own region:**

- tailor-made training packages
- strategies, feasibility assessments and plans to sustain, scale up and roll out 5GDHC systems
- a 5GDHC platform that ensures knowledge exchange and interaction among key target groups
- news, case studies and latest information on district heating and cooling
- Pilot site visits

**Join the D2Grids community,
and start sharing your experiences
with your peers!**

On construction21.org



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