

D2GRIDS PROJECT LAUNCH : Rolling out 5G District Heating & Cooling

A new Interreg NWE project

D2GRIDS is an acronym for ‘demand driven grids’. This new Interreg North-West Europe (NWE) project, coordinated by Mijnwater Ltd., aims to upscale 5th generation District Heating and Cooling (5G DHC) grids across Europe. Five pilot sites in Paris-Saclay (FR), Bochum (GE), Brunssum (NL), Glasgow and Nottingham (UK) will develop 5G DHC grids. The 20 million EUR project is supported by Interreg funds, covering close to 60 % of the overall budget - 11,6 million euros. D2Grids first kick-off meeting, held in Heerlen, set the stage for three years of intense collaboration among European partners to roll out this proven technology.

What is 5G DHC ?

First developed in Heerlen by Mijnwater Ltd., and in contrary to conventional district heating, this thermal smart grid is based on low temperatures. By a cloud of decentralized heat pumps, located at end-user accommodation, energy is exchanged on the grid, and flows are induced through customer demands. The concept allows large scale utilization of low temperature waste heat, from data centers, supermarkets, industry, etc. The five partner pilot sites aim to connect ca. 50.000 m2 of dwellings and/or commercial buildings to a 5G DHC grid.

Construction 21 as communication partner

As communication partner in this project, Construction21 will implement a multi-channel communication strategy (newsletter, social media, online communities, videos). While ensuring project visibility, Construction 21 will also share news about district heating and cooling networks, thus creating a community of interest around the project. Increasing the knowledge of the industry for this new technology will contribute to its adoption. Pilot site visits will present the output of the project and initiate the commercialization phase.

Mijnwater Ltd is lead partner of D2Grids project with Herman Eijdeems as leading manager. Herman’s vision on 5G DHC : “The energy transition is the major challenge of this era; the 5G DHC concept, as such, is a powerful and affordable strategy to decarbonize building stocks in urban environment all over Europe. In the city of Heerlen we show proven technology and are eager to share our expertise and experiences to accelerate the developments in other areas.”

Attracting stakeholders to roll out the technology

Upscaling the technology - boosted by transnational cooperation - enables the consortium to raise the interest of the industry to develop the right products and reduce the costs by 10-20%. VITO/Energyville in Belgium is a key project partner for industrializing the 5G DHC concept and to evaluate results. In the Parkstad Limburg region Mijnwater cooperates with Weller Social Housing foundation in order to connect thousands of dwellings during their renovation process.

Moreover, the project will deliver plans to create further similar developments in Parkstad Limburg, North-East France, Flanders, the Ruhr-area, Scotland and East Midlands (UK). Dedicated education and training programs, will be set up by Open University, a partner in the project bringing in expertise on post-graduate and digital learning. The projects will eventually require investments of a scale likely to attract pension funds and other large investors. Asper Investment Management will develop an investment thesis around the technology and information materials to maximise the attractiveness of these projects to the investor community.

Commissioned by Mijnwater the application was successfully constructed by EUQuest in Heerlen and Grants Europe Consulting in Budapest.

About Construction21

As the social media for sustainable buildings and cities, Construction21 disseminates free information and best practices for sustainable development among actors of the building and city sectors, especially through its three databases dedicated to exemplary buildings, districts and infrastructures.

The Construction21 network counts 11 national platforms in Europe, China and North Africa, managed by local non-profit organisations, along with an international platform in English. In 2019, the network generated 700,000 visits and 4.4 million views.

Every year, Construction21 organises the Green Solutions Awards, an international contest aiming to promote pioneers' best practices and inspire professionals around the world. The competition is connected to the COP. The 2018 awards generated 4.1 million views.

12 project partners and 7 subpartners

Lead partner



Project partners



Subpartners

