Interreg North-West Europe D2Grids
European Regional Development Fund

PRESS RELEASE

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# 5TH GENERATION DISTRICT HEATING AND COOLING SHOWCASED IN GLASGOW DURING COP26

**The European D2GRIDS project, which aims to develop 5TH GENERATION LOCAL ENERGY GRIDS organised a conference on the occasion of COP26. It took place in Glasgow and was available online. The goal was to showcase the results in developing the concept and pilot site achievements.**

The D2Grids team was happy to welcome more than 150 people who attended the conference. There were more than 90 people online and 60 in Glasgow. The event was the opportunity to present the concept of 5$^{th}$ generation district heating and cooling, and to share the latest updates on the pilots' progress through an interactive session. After that, the speakers exposed 5GDHC's potential in European cities and their own regions. The event has been oriented in order to **inspire decision-makers and give them all the knowledge required to start their own 5GDHC grid!**

The D2Grids project aims to develop a **generic technology model for 5th generation district heating and cooling (DHC) networks** and to create a **solid business plan.** The goal is to promote this new generation of smart local energy grids, train professionals for its deployment, and demonstrate the technology through impactful pilot investments in: Paris-Saclay (FR), Bochum (DE), Brunssum (NL), Glasgow (SC) and Nottingham (EN).

Watch the replay!

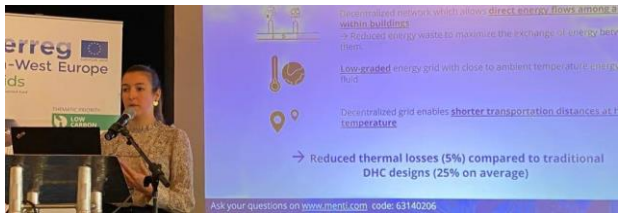
## Overview of the program of the conference :

- Introduction on the D2GRIDS project
- 5GDHC principles, benefits and challenges
- Focus on the D2GRIDS pilot sites
- 5GDHC, an affordable solution
- The potential of 5GDHC across Europe
- You can start your 5GDHC grid today!

## The conference as if you were there!

People in Glasgow arrived at the venue just before 09:50 am while online, the first viewers were connected at 09:45 am. We felt that district heating and cooling stakeholders were glad to attend this event, **seeking more knowledge about this new generation of District Heating and Cooling grids.**

It started with a few words from Véronique Pappe, Director of Construction21, the social media for sustainable buildings and cities - in charge of the D2GRIDS' communication. Frans Drummen, Project Manager of Mijnwater Energy Ltd, lead partner of the D2GRIDS project and developer of the first 5GDHC grid in Herlen, Netherlands was next and talked about the Mijnwater's vision and why **5GDHC has to be part of the future energy systems.** Mathieu Mori, Director at Interreg North-West Europe, told us why he believed in D2GRIDS and **why the project was financed by the programme**. Finally, Stuart Patrick, Chief Executive of the Glasgow Chamber of Commerce, told us its pride to host the event.




Ann Wouters, Programme Manager at VITO/EnergyVille, one of the D2GRIDS partner, explained that this new generation of District Heating and Cooling grids **was based on 5 core principles, and how to assess them.**

### Why is 5GDHC key to the energy transition?

Mathilde Henry, Project Manager at Greenflex, answered this question by demonstrating environmental benefits of a 5GDHC system.

First benefit: 5GDHC is the most efficient DHC system. Its decentralized network allow heating and cooling to flow between buildings, and thermal losses drop **from 25% in a traditional DHC grid to only 5% here.**
Secondly, 5GDHC leans towards **100% of local renewable energy** by:

- Giving priority to waste heat recovery
- Using low-graded energy (geothermal, mine water…)
- Using renewable electricity sources and thermal storage to provide heatpumps.

After a short introduction of the different pilot sites of D2GRIDS implementing 5GDHC, a roundtable with each pilot site representative was held. It was a unique occasion to understand the various challenges they must deal with, to discuss the reasons they had to be part of this 5GDHC journey, and all the technical differences between each of the grids. **This session was interactive, so everyone could ask questions to the speakers!**


Coming back from a 15-minute break, Adam Ben-Hamo from ASPER investment management explained us why investing was 5GDHC is financially viable. Indeed, 5GDHC projects **can be financed by different types of investors, like :**

1) External long-term investors (e.g. pension funds, green bonds)
2) Investors on the energy market (e.g. electricity/thermal network owner, ESCOs)
3) End-users (energy communities, crowd-funding).

Nevertheless, **it is critical that developers take all necessary steps to fully understand the technical, financial and wider attributes of their projects**. Using this information, developers are more likely to be successful in targeting the right types of investors who seek exposure to those attributes.

### Is it replicable ?

The last part of the conference was dedicated to the potential of 5GDHC across Europe. Jack Corscadden, Project Officer at DHC+ platform, made a status on current DHC systems in Europe and revealed that the demand for district heating and cooling systems in Europe will be here in the coming years and that Europe should finance these: **50% of Europe's heat demand could be met by district heating systems in Europe in 2050, compared to 13% nowadays.**

Eugenia Bueno Martinez, Project Manager at Open University then exposed us all steps required to roll out 5GDHC grids on a local scale: it's possible! Going from the regional analysis, to the implementation of the grid, D2GRIDS also **developed tools to help you implementing your own 5GDHC grid!** The Orleans's metropolis analysis was a good example of a real regional analysis.

Watch the replay!

**See all pictures of the event!**

### About D2Grids

The 5th generation district heat and cold grid (5GDHC) was first developed in Heerlen, Netherlands, by Mijnwater Energy Ltd. In contrast to traditional district heating, it is an intelligent thermal network based on a local low-temperature loop. Decentralised energy production, using heat pumps located at the user's premises, allows energy exchange on the network, where flows are demand-driven. This concept allows the recovery of cold and heat emitted by supermarkets, data centers, factories, offices etc.

D2GRIDS stands for "demand-driven grids". It is an Interreg Northwest Europe (NWE) project that runs for more than 4 years (2018-2023). Mijnwater Ltd, based in the Netherlands, is coordinating the project with 15 other main partners and 6 secondary partners. Five pilot sites located in Paris-Saclay (France), Bochum (Germany), Brunssum (Netherlands), Glasgow and Nottingham (UK) will develop 5GDHC networks.

Do you wish to **interview** one of the speakers? please contact us at: contact@5GDHC.eu

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