

UPGRADEDH FINAL
DISSEMINATION
WORKSHOP

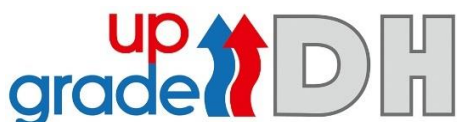
**“TOWARDS EFFICIENT
DISTRICT HEATING AND
COOLING IN EUROPE”**

WEDNESDAY, 15 SEPTEMBER 2021
(VIRTUAL EVENT)

www.upgrade-dh.eu



**Upgrading district heating
networks in Europe**
Report of the final dissemination workshop



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(numbers in superscript refer to the project partners on page 4)

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1 The Upgrade DH project

The overall objective of the Upgrade DH project, funded by the EU's Horizon2020 programme, was to improve the performance of inefficient district heating networks in Europe by supporting selected demonstration cases for upgrading, which can be replicated in Europe. The Upgrade DH project supported the upgrading and retrofitting process of DH systems in different climate regions of Europe, covering various countries. The target countries of the Upgrade DH project are: Bosnia-Herzegovina, Denmark, Croatia, Germany, Italy, Lithuania, Poland, and The Netherlands. In each of the target countries, the upgrading process is initiated at concrete DH systems of the so-called Upgrade DH demonstration cases (demo cases) (Figure 1). The gained knowledge and experiences were further replicated to other European countries and DH systems in order to leverage the impact.

The Upgrade DH project launched, implemented and tested the upgrading process up to the implementation phase (investment stage). As lighthouse projects, the demo cases were used to stimulate replication. The initiation of new projects in the target countries and accompanying activities at national level contributed to implement energy efficiency and renewable energy policies, regulations and legislations in the target countries.

The Upgrade DH project involved stakeholders in charge of city networks, heat suppliers, DH companies, managers of buildings blocks, housing associations and other building owners/managers and end consumers. Core activities of the Upgrade DH project included the collection of the best upgrading measures, the support of the upgrading process for selected DH networks, the organisation of capacity building measures about DH upgrading, financing and business models, as well as the development of national and regional action plans. In addition, an image raising campaign for modern DH networks was carried out in the Upgrade DH project.

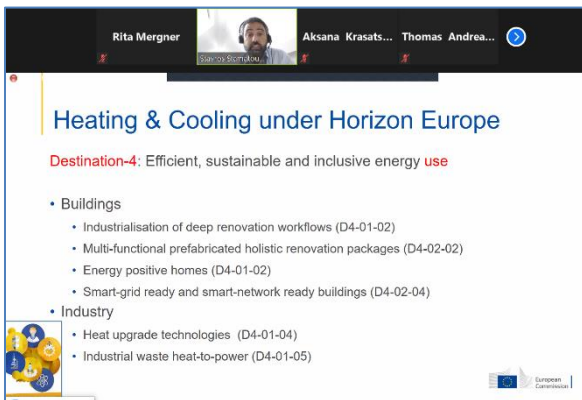
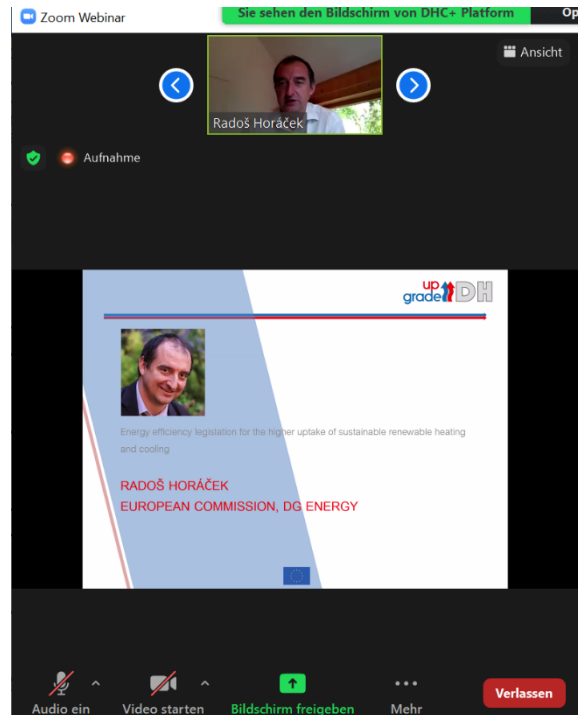
The recognition of such an EU project has a large impact on national and regional level to further improve district heating networks by replication of successful technical, managerial, organisational and financial approaches identified in the Upgrade DH project.

2 Event summary

The final Upgrade DH project dissemination workshop “Towards efficient district heating and cooling in Europe” took place on Wednesday, 15 September 2021, online. 139 persons have registered for the event and more than 90 participants attended the event.

This event was a perfect opportunity to present and discuss the current status of EU and Member State policies in the heating and cooling sector as well as in the energy efficiency sector. An important input about this was given by Radoš Horáček from the European Commission who presented the energy efficiency legislation for a higher uptake of sustainable renewable heating and cooling in Europe.

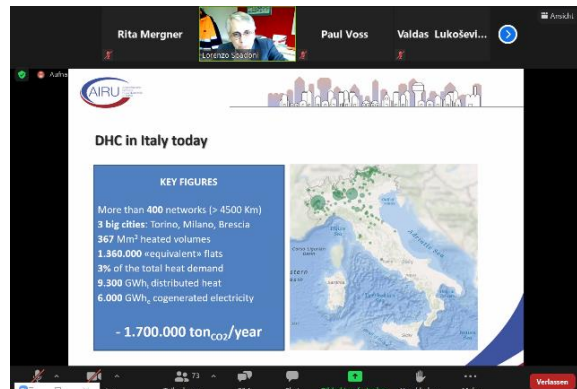
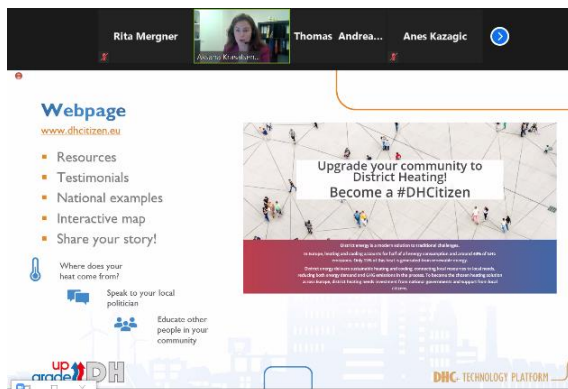
Furthermore, project results and achievements, such as the collection of best upgrading measures and tools, national action plans and the DHC promotion campaign, were presented by the project coordinator Dominik Rutz and several project partners. The identification of upgrading opportunities and the planning for the implementation of upgrading measures at concrete DHC examples were presented and discussed in a round table discussion.



Finally, Stavros Stamatoukos from the CINEA European Climate Infrastructure and Environment Executive Agency gave an insight in past and ongoing EU funded projects in that sector and presented open calls and project opportunities.

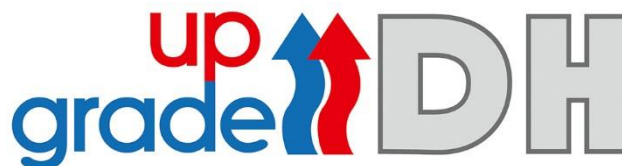
In the afternoon, participants had a chance to virtually visit two CHP plants that recently undertook upgrading measures and can serve as inspiration for other DH systems striving to become more efficient.

The presentations of the event are available at <https://www.upgrade-dh.eu/en/publications-reports/the-final-upgrade-dh-conference/> and <https://www.euroheat.org/events/towards-efficient-district-heating-cooling-europe/>. The workshop was also recorded and is available on the Youtube channel of Euroheat & Power: <https://www.youtube.com/watch?v=Aq6ZasFMxRE&t=20s>.



3 Press release

District Heating: an important contributor to support the energy transition in the heating sector



Munich, 29.09.2021: Modern and renewable district heating systems are very important technologies for achieving the European climate mitigation targets, including the aim to limit the global temperature rise to 1.5°C above pre-industrial levels by the end of the century according to the Paris Agreement. This was the important message of the final Upgrade DH workshop “Towards efficient district heating and cooling in Europe” which took place on Wednesday, 15 September 2021, online. The final event of the Upgrade DH project, supported by the European Union’s Horizon 2020 research and innovation programme, was a full success: more than 90 participants attended the event, asked questions, and contributed to a fruitful discussion on modern heating solutions.

“The heating sector was for a long time neglected in the political debate, in comparison to the power sector”, stated Dominik Rutz, the coordinator of the Upgrade DH project. It was therefore strongly acknowledged that the spotlight is currently directed on renewable heating and energy, at least at the European level. Radoš Horáček, representative of DG Energy of the European Commission, presented the current European energy efficiency legislation and discussion on the higher uptake of sustainable renewable heating and cooling. For example, the “Fit for 55 Package” of the European Commission proposes a new 55% greenhouse gas reduction target for 2030, whereby measures in the heating sector will play a significant role in achieving this target.

That is exactly why EU projects like Upgrade DH are important. The overall objective of this project, which will be concluded after 41 months of implementation at the end of this month, was to improve the performance of inefficient district heating networks in Europe by supporting selected demonstration cases for upgrading, which can be replicated in Europe. The consortium, consisting of research institutes, DH associations, utilities, consultants, and DH operators, not only came up with a full range of information materials such as handbooks, best practice examples, and guidelines, it intensively worked together with local stakeholders of 8 DH systems in Europe to upgrade these systems. Measures included reduction on the temperature levels, improvement of the pumps and pipelines, integration of renewable energies, or cross-cutting topics such as digitalisation of the system, for example. This was accompanied by a broad image raising campaign to inform European citizens about the various advantages of DH. “Through the campaign, we reached more than 50,000 citizens”, said Aksana Krasatsenka from Euroheat and Power. She was responsible for the implementation of the campaign, as well as for the organisation of the final workshop.

The overall impact of Upgrade DH is significant. The proposed measures for upgrading lead to a reduction of 16.9% of the primary energy demand and 51.9% reduction of greenhouse gases of the DH systems at the eight demo sites. In absolute numbers, this is a reduction of more than 150,000 t of CO₂ equivalent per year. Furthermore, the share of using waste heat increased by 3.3% and the share of renewable energies increased by 21.7%. Several of the upgrading measures are currently being implemented, some measures were even finalised.

To support similar projects, the European Commission has recently published the calls for the new programme called Horizon Europe. Stavros Stamatoukos, project officer of the European Climate Infrastructure and Environment Executive Agency and responsible for the Upgrade DH project, gave an insight on project opportunities in the field of heating and cooling and encouraged the workshop attendees to participate.

Finally, in the framework of the workshop participants had a chance to virtually visit two CHP plants that recently undertook upgrading measures and can serve as inspiration for other DH systems striving to become more efficient. These examples of knowledge exchange are needed and will lead to a stepwise improvement of the DH sector in Europe and thereby contributing significantly towards the 1.5 °C climate target.

Presentations of the event:

<https://www.upgrade-dh.eu/en/publications-reports/the-final-upgrade-dh-conference/>

<https://www.euroheat.org/events/towards-efficient-district-heating-cooling-europe/>

Recording of the event:

<https://youtu.be/Ag6ZasFMxRE>

Project website:

<https://www.upgrade-dh.eu/>

4 Agenda

- 10:00 **Welcome & opening remarks**
(Paul Voss, Euroheat & Power)
- 10:10 **Energy efficiency legislation for the higher uptake of sustainable renewable heating and cooling**
(Radoš Horáček, European Commission)
- 10:30 **Upgrading the performance of district heating networks: Technical and non-technical approaches**
(Dominik Rutz, WIP Renewables)
- 11:00 **What are the best tools and instruments in Eastern Europe?**
(Valdas Lukoševičius, LSTA, Lithuanian District Heating Association)
- 11:15 **How to implement the potential of DHC? Focus on Italy**
(Lorenzo Spadoni, AIRU, Italian District Heating Association)
- 11:30 *Coffee break*
- 11:45 **Overview of Upgrade DH solutions**
(Matteo Pozzi, OPTIT)
- 12:00 **Roundtable discussion on how to foster replication**
(moderated by Rita Mergner, WIP Renewables)
- Success stories from demo cases: Tuzla Bosnia and Herzegovina
(Anes Kazagic, EPBiH)
 - Cooperation with follower cases: Næstved, Denmark
(Thomas Andreas Østergaard, COWI)
 - Best practice projects across Europe: Example of large solar thermal
(Michael Kübler, Solites)
- 12:30 **How to improve the perception of district heating at a local level?**
(Aksana Krasatsenka, Euroheat & Power)
- 12:45 **Conclusions & outlook**
(Stavros Stamatoukos, CINEA)
- 13:00 *Lunch*
- 14:00 Welcome again & introduction to the virtual tours 1 & 2
- **Virtual power plant tour 1: Berlin, Germany, Vattenfall, Reuter West**
(Ruben Hoffmann, Vattenfall)
 - **Virtual visit 2: Vilnius CHP Plant-2, the main heat generation object of the City**
(Paulius Martinkus and Gytautas Kaulakys Vilnius DH Company)
- 14:30 *Time to explore virtual tours*
- 15:00 *Farewell and online networking*
- 16:00 *End*