Upgrading the performance of district heating networks in Europe: the Upgrade DH Project

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Upgrade DH webinar
30. April 2020
Improve the performance of district heating networks in Europe by supporting selected demonstration cases for upgrading, which can be replicated in Europe.
Classification of upgrading measures

1. CONSUMPTION
   Heat Transfer Station

2. DISTRIBUTION
   Primary Grid
   Secondary Grid
   Others: Pumps

3. GENERATION
   CHP Plants
   Boilers
   Heat Sources
Complexity of the DH system influences the upgrading process
Upgrading DH

- Often, old centralized, fossil fuel powered DH needs to be upgraded

- A key question is related to the current and future purpose of the energy (power) generation facility
  - Future changes in the power sector
  - Efficiency requirements
  - Future heat demand
Challenges in upgrading

- High system temperatures
- Hydraulic issues
- Old pipes
- Air pollution
- Over dimensioned networks
- Network limitations
The Upgrading process

• DH -> **high potential** for the transition of the heat sector

• Upgrading process consists of **single** or **several** upgrading measures

• Should be very **carefully planned in the long-term**

• Upgrading process often **complex** and **sophisticated**

• Ideally, **involve stakeholders** in the process
Example about retrofitting process

Figure 1: Simplified scheme of the retrofitting process

Upgrade DH project structure

WP1: Project management

WP2: Best practices on projects and tools

Demonstration Cases

WP3: Assessment and diagnosis

WP4: Local action plans & feasibility

WP5: Financing, business models & initiating investments

WP6: Regional/national action plans & European wide replication

WP7: Communication & Dissemination
Upgrade DH case studies
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30-04-2020
The handbook is available in the following languages:

- English
- Bosnian
- Croatian
- Danish
- Italian
- Lithuanian
- Polish

- As hardcopy/ pdf
- See [www.upgrade-dh.eu](http://www.upgrade-dh.eu)
Thank you for your attention !!

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This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 785014. The sole responsibility for the content of this report lies with the authors. It does not necessarily reflect the opinion of the European Union nor of the Executive Agency for Small and Medium-sized Enterprises (EASME). Neither the EASME nor the European Commission are responsible for any use that may be made of the information contained therein.