

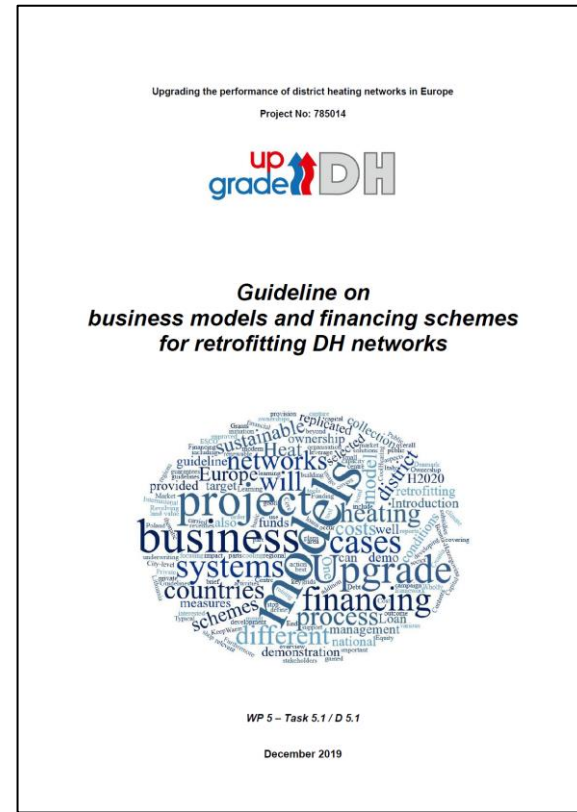
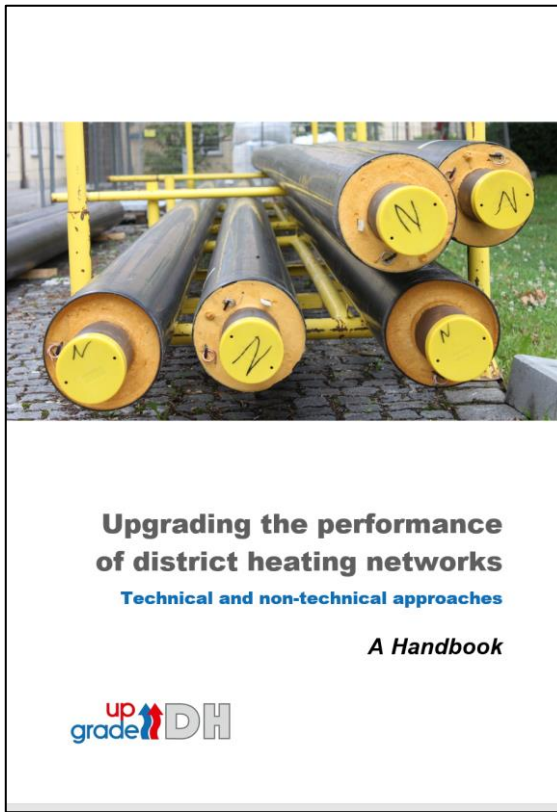


Financial aspects and business models of DH upgrading

Borna Doračić, mag.ing.mech



- 2 Handbooks:





Financial analysis

- A detailed feasibility study required
- Necessary to define all the costs and revenues

Capital costs

costs for planning, feasibility studies and documentation, technologies and for civil works

Operation costs

insurances, interest expenses, costs of labour, property taxes, utilities expenses, depreciation of assets, fuel costs

Revenues

increased sales of heat, reductions of fuel use, additional revenues from the added commodity, etc





Financial KPIs

$$NPV = \sum_{t=1}^n \frac{C_t}{(1+i)^t} - C_0 [\text{€}]$$

$$0 = NPV = \sum_{t=1}^n \frac{C_t}{(1+IRR)^t} - C_0 [\text{€}]$$





DH upgrading business models

Strategic objectives

Ownership structure

Investment plan

Economic aspects: revenues, profit, non-profit

Contractual and permitting issues

Involved stakeholders





Ownership

Fully public

The risk of investment is covered by the municipality or city and the project is implemented by the public utility

Private

The project is completely developed and implemented by the private investor, which wants to maximize profits

Public private partnership

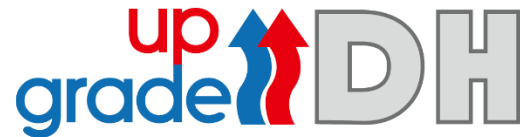
Merges the benefits of both public and private partner involvement





Thank you for your attention!

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



Financial support from the European Union's Horizon2020 project UpgradeDH (grant agreement 785014) is gratefully acknowledged