

Pauline Lucas
Policy Director
Euroheat & Power



Harnessing the potential of district heating & cooling to accelerate the heat transition

27 October 2023

IPM23
Swedish Parliament,
Stockholm



About us



International association for sustainable district heating and cooling



Channeling the voice of the district heating & cooling industry towards European Union



Research & Innovation Technology platform (DHC+)



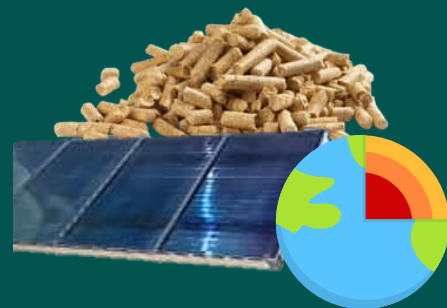
150+ members, representing organisations and companies over 30+ countries



Heating & cooling networks harness local renewable and clean heat resources

Heating and cooling networks are an infrastructure that delivers hot water through a network of insulated pipes

Renewable Heat sources: geothermal, solar thermal, bioenergy



- 67 million EU consumers
- 17.000 networks in Europe
- Today 12% of the EU heat market
- Mix: 40% renewable & waste heat
- 20% market share in 2030

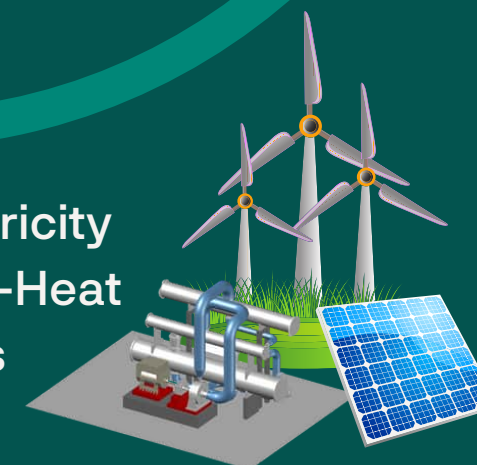


Free cooling from rivers, sea, lakes



Waste heat: tertiary buildings and industrial activities

Renewable Electricity used in Power-to-Heat applications



Excess heat – The world's most untapped energy source

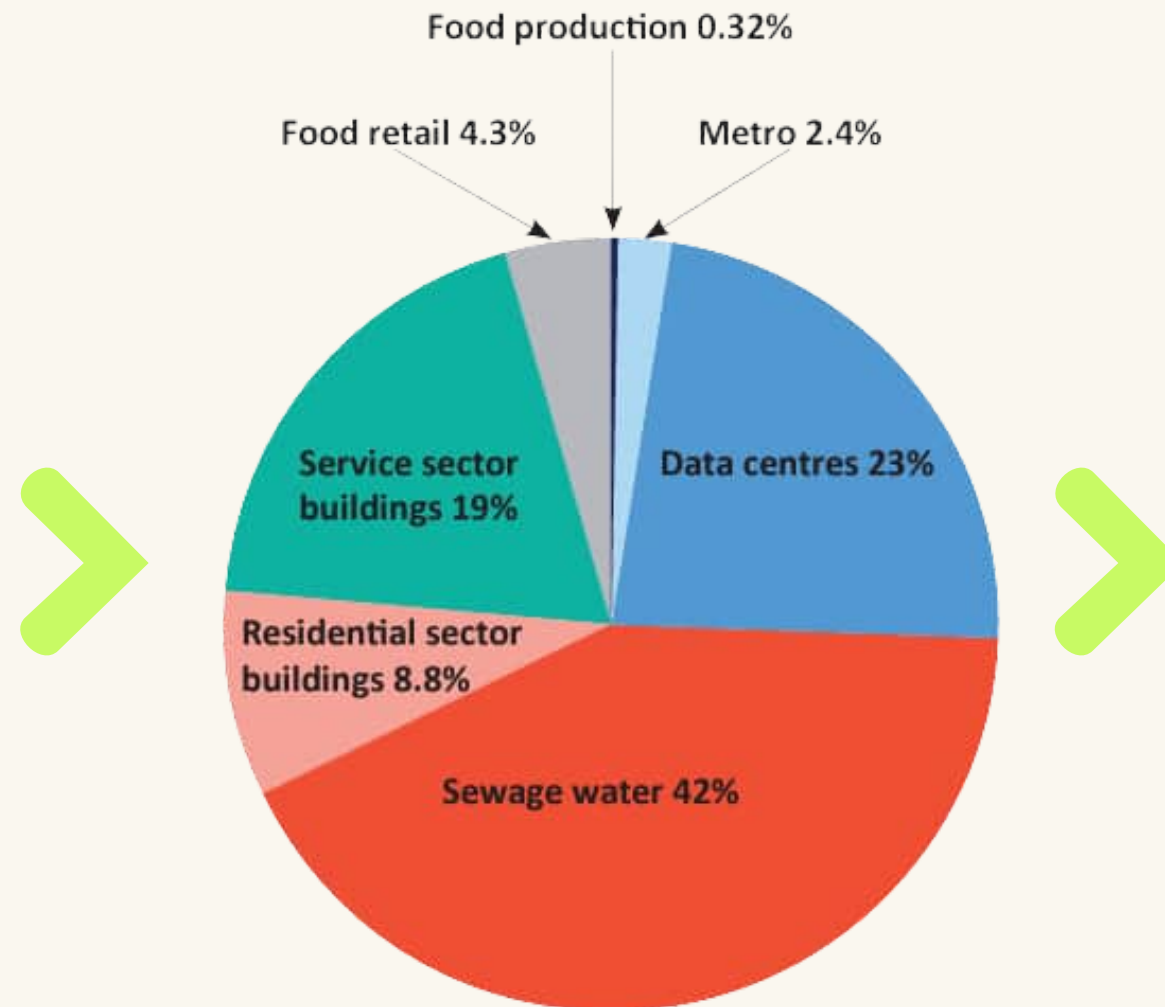
Urban Waste Heat Potential 333 TWh/year



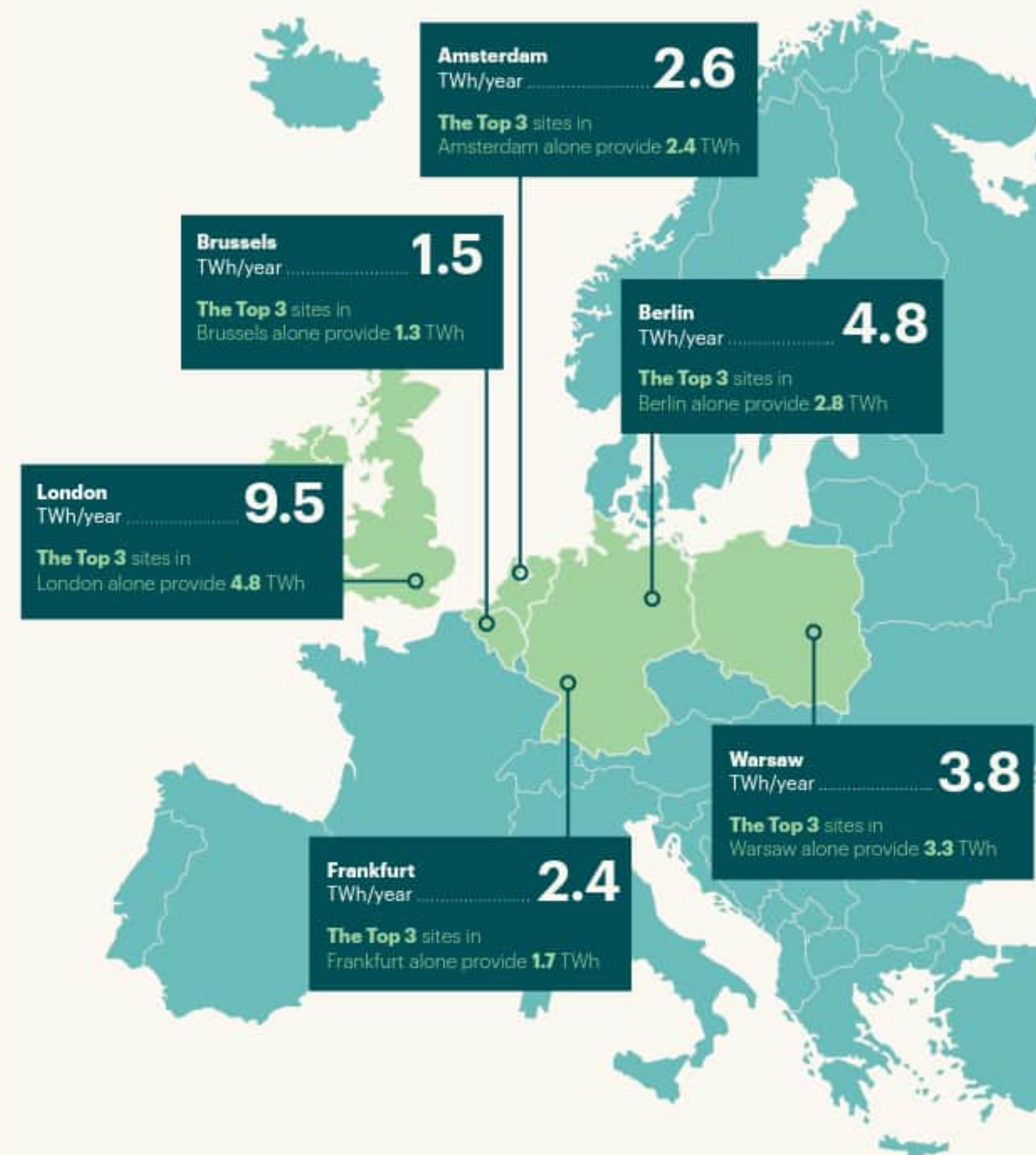
2,860 TWh/year

of waste heat
accessible in the EU

Almost enough to cover
the demand for heat and
hot water in residential
and service sector
buildings



Data: [ReUseHeat](#) project and [Danfoss](#).
Mapping of this potential [here](#)

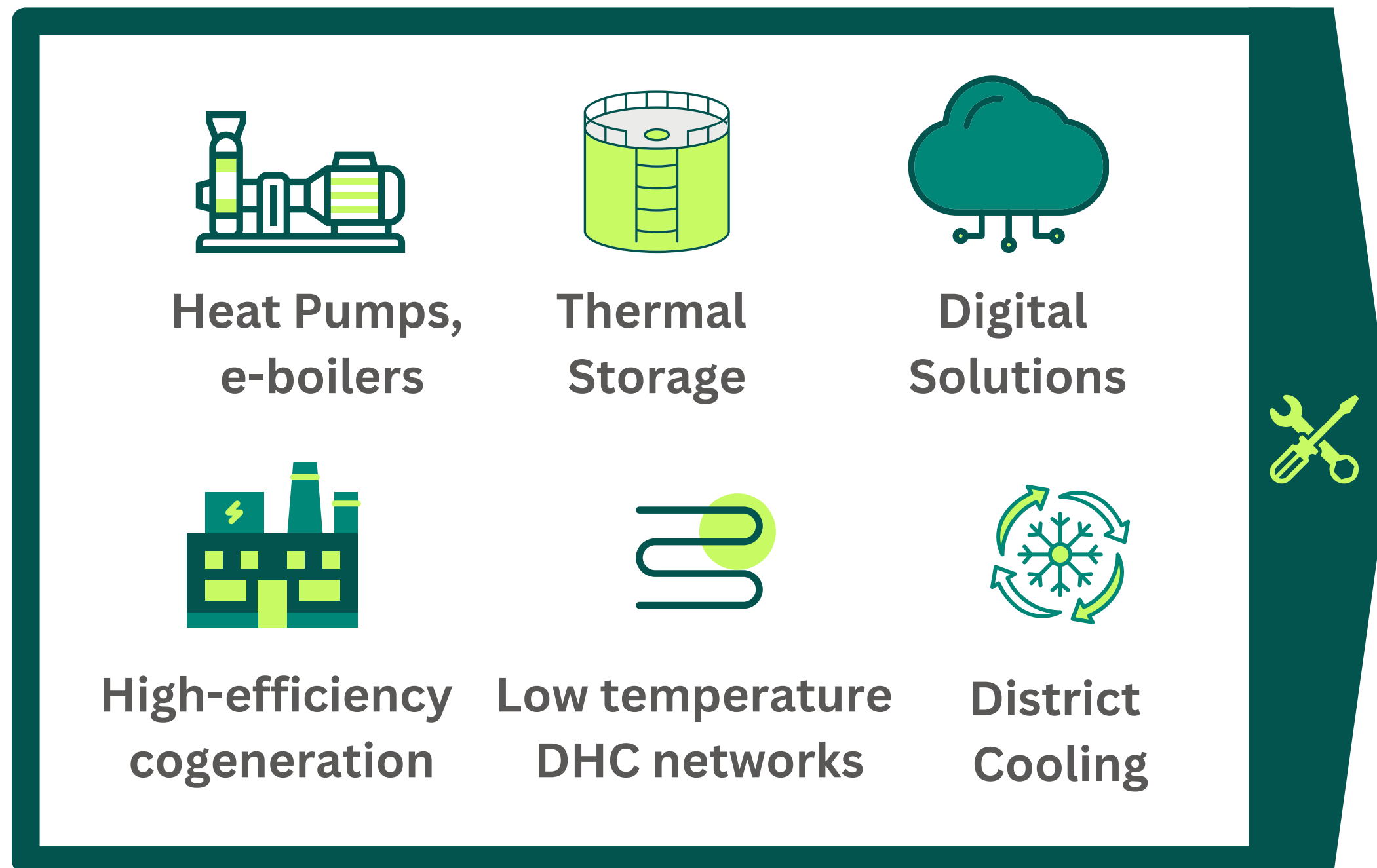


A decarbonised energy system is integrated and flexible

The energy crisis also sparked unprecedented momentum for renewable energy.

The share of variable renewables (wind and PV) increased to ~40%, calling for greater flexibility.

DHC networks offer a toolbox that enables the necessary flexibility and integrate with the electricity grid.



Key benefits:

Diversification

Resilience

Circularity

Cost efficiency

Decarbonisation



**The Fitfor55 Package, a
game changer for district
heating & cooling in Europe**

1. Expanding the district heating & cooling market across Europe



District approach to building decarbonisation:

EPBD under negotiation

- Renovation Strategies taking into account the district approach
- No subsidies for fossil-only boilers (except current schemes)
- Efficient DHC 'readiness' in EPCs
- ZEB enabled to connect to efficient DHC networks



Towards a level playing field on the heat market

- Carbon price on all fossil fuels used in buildings (ETS2)



Mandatory local heating & cooling planning

- For municipalities > 45.000 citizens



2. A clear transition path, unapologetically fossil-free

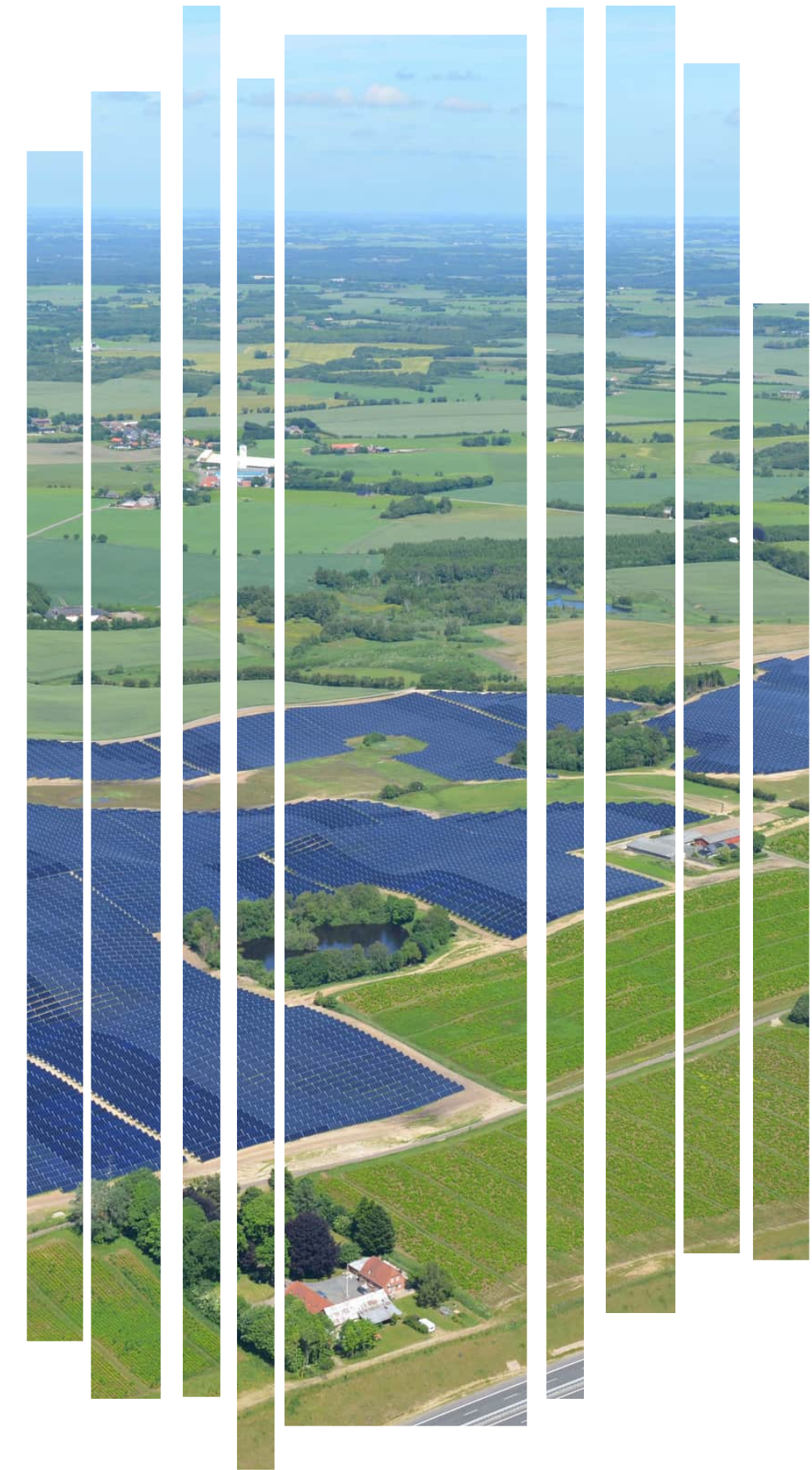


New sectoral targets for renewables & waste heat
in buildings, industry, heating and cooling
and DHC (2.2pp increase/year)



A new definition of “efficient DHC”, enshrining a fossil-free target by 2050:

- By 2035: 50% RES & waste heat or 80% high-efficiency cogeneration, with min. share of 35% RES & WH
- No new fossil assets on "efficient DHC networks" from 2030
- No public funding or support for networks not fulfilling the definition



3. Shifting focus towards clean & renewable heat



Waste heat is on a roll:

- Accountable towards sectoral renewable targets
- Coordination framework between actors to foster recovery
- Mandatory waste heat recovery for data centres above 1MW



EU Member States to develop risk-mitigation frameworks for renewables & waste heat



Unlocking sector integration for decarbonisation:

- Renewable electricity can be counted towards RES in H&C and RES in DHC targets
- Systematic assessment of the potential of DHC to provide balancing services to the electricity grid



Where do we go next?



New EU policy mandate, new momentum



European Elections - June 2024



2040 climate targets

Accelerate decarbonisation towards 2050

- Fit for 55 does not mean fit for 2050

... but the heating sector is still ‘under the radar’



An iceberg floating in the ocean, with a small tip above the water and a much larger, jagged mass submerged below. The sky is blue with scattered white clouds. The water is a deep blue, and the submerged part of the iceberg is a lighter, translucent blue. The overall scene is a metaphor for hidden or overlooked energy consumption.

Electricity 17%

Heat & cooling 51%

Transport 32%

Heating & Cooling Transition Best Practices Checklist



- National heat fund
- De-risking instruments for clean heat projects, e.g. insurance schemes



- Mandatory Heating & cooling plans, municipalities
- Implementation of these plans: conditional subsidies or mandatory implementation



- Measures to increase waste heat recovery
- Cooperation framework between electricity DSO and DHC operators and systematic assessment of DHC potential to provide balancing services to the electricity grid



- Renovation Strategies taking into account the district approach
- No subsidies for fossil-only boilers
- Encourage buildings to connect to efficient DHC networks



EHP Blueprint:

Unleashing the
potential of efficient
DHC to decarbonise
Europe

Thank you

Ask your questions!

Pauline Lucas

Policy Director

pl@euroheat.org

 [@PaulinskaLucas](https://twitter.com/PaulinskaLucas)

 [Pauline Lucas](https://www.linkedin.com/in/PaulineLucas)

 euroheat.org