

Renewable Heating and Cooling Platform Vision



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What is the RHC Platform?

RHC Renewable
Heating & Cooling
European Technology and Innovation Platform

- Innovation focus
- Experts from research and industry
- Officially endorsed by EC
- Reaching out to Member States





*Innovation is
not about
having a new
idea*





Innovation is:

"Creativity is thinking of something new.

**Innovation is the implementation of
something new"**

Paul Sloane

@PaulSloane

 idea to value.com



Innovation is:

*"Turning an idea into a solution
that adds value
from a customer's perspective"*

Nick Skillicorn

@improvides

 idea to value.com



What mistakes
companies do
when they try
to innovate?

They don't provide enough time and budget to turn ideas into a real solution.

They think it's about products or technology. But innovation it's first about innovating organisations, their culture and their management.

Same it's true for countries



- Innovation to enable market uptake. Renewable heating technologies are mature. The biggest challenges are not technological.
- Which services the heating and cooling sector can provide to the rest of the energy system?
- Provide a clear prospect for the heating and cooling (H&C) sectors by 2050.

Vision building blocks

- **Local energy from various RES technologies and waste heat** from industry, data centres and buildings themselves.
- Solutions like DHC able to absorb excess RES electricity and balancing the grid.
- Daily and inter-seasonal **heat storage** - 100 cheaper than batteries.
- **Smart energy management systems** to optimise heat usage and production and empower consumers.
- Innovative **business models**, e.g. based on the H&C-as-a-service.
- Customers' and industries' **engagement**.



The strategic role of cities in the energy transition

- **Smart cities:** holistic and integrated approach to energy management.
- **Energy leadership in a wider market and system framework**
- **Challenges:**
 - **H&C planning at city level**
 - establishing energy strategies, simplify procedures
 - innovative financial models tackling CAPEX
 - training technicians, civil servants and decision-makers.



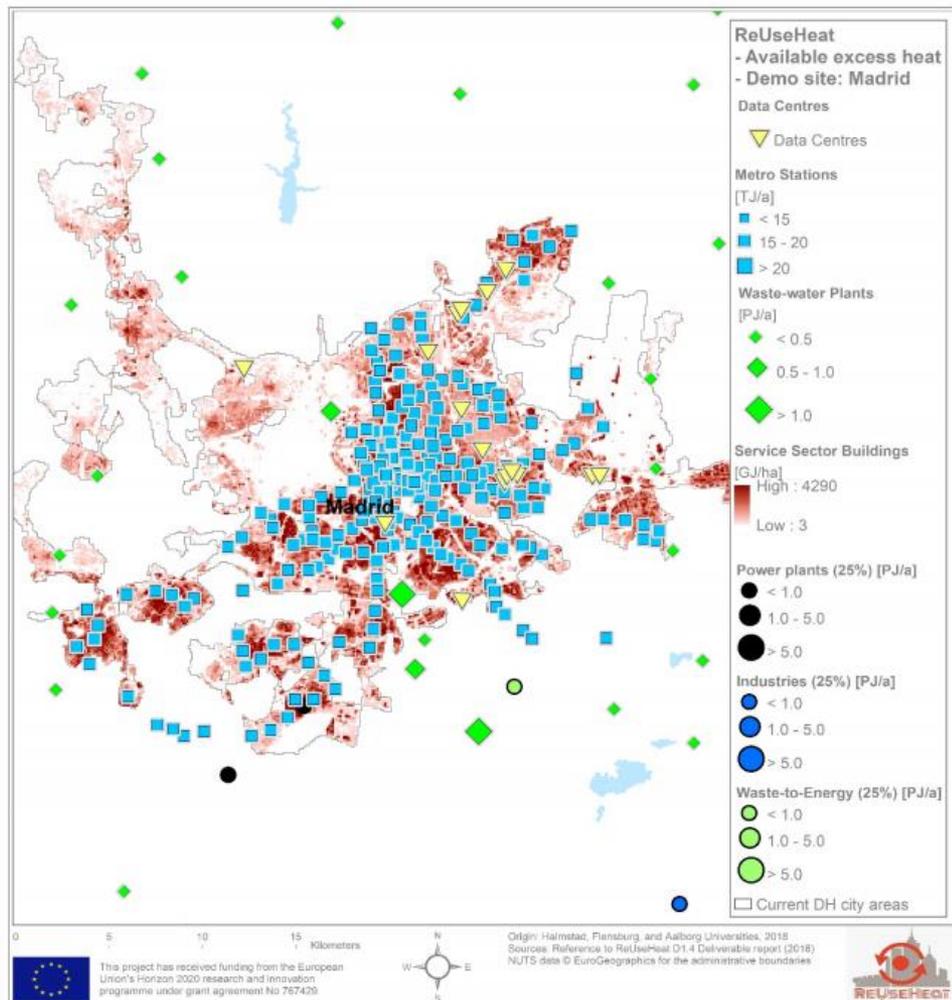


Figure 1. Mapping of available urban excess heat from four unconventional and three conventional sources in the city area of Madrid, one of four project demonstration sites.

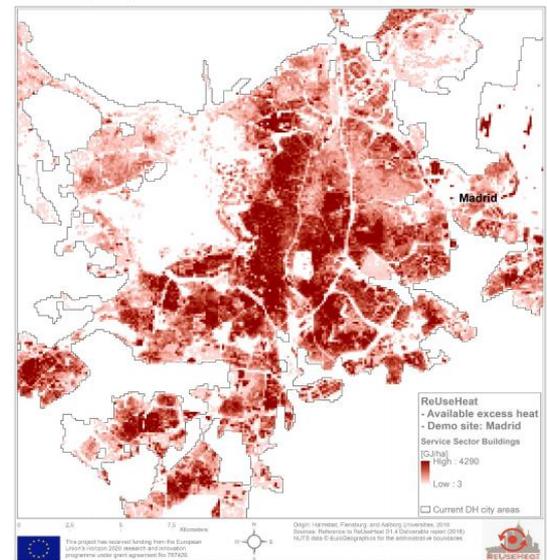
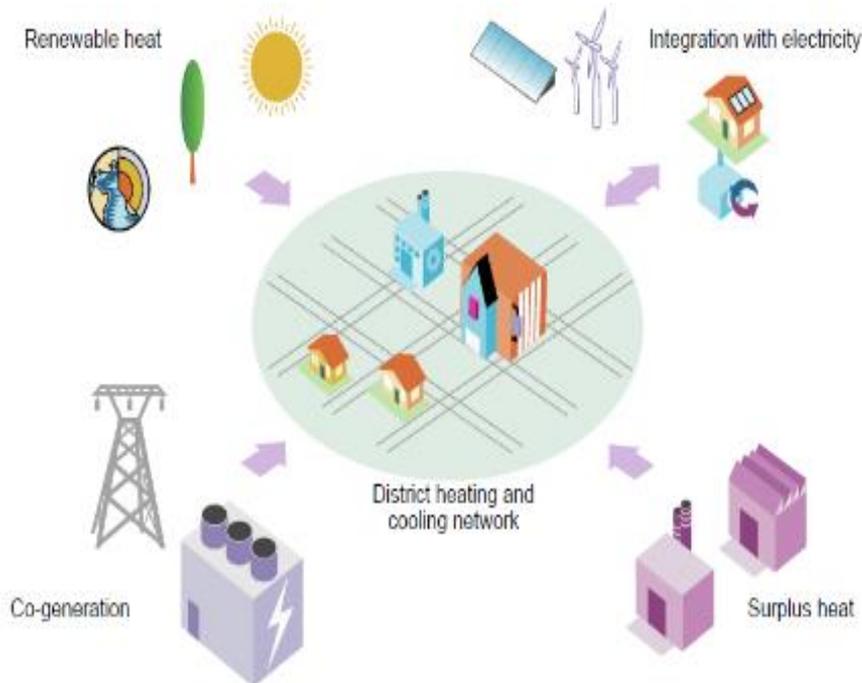


Figure 14. Available excess heat by hectare for service sector buildings. Close-up of the Madrid city area (ES).

www.reuseheat.eu

@ReUseHeat





- DHC and thermal storage can provide an efficient source of short and long term **flexibility** and act as a **local energy backbone** and **virtual battery**.

- Avoid **curtailment RES electricity**, reducing voltage congestion and free capacity for other electric usage such as **EVs**, improve the role of virtual power plant operators (VPP) and aggregators.



Sector integration and digitalisation

Sector integration is a driver for digitalization.

Only digital solutions can ensure governance of such complex integrated systems and supporting operators in managing multi-level optimisation across heat, gas and electricity networks.

If good framework in place, these synergies and system efficiency may be passed to **customers**.



The case of Nanterre



 **dalkia** smart building
GROUPE EDF



Financial innovations:

- Investment risk shifts to high investment and low operation cost e.g. supporting the ESCO models.
- Extending the ability of cities to generate revenue and access financing at lower cost.
- Business models that benefit consumers who want to contribute to demand-side management.



Societal innovations:

- The role of intermediaries (installers, planners, architects...).
- Involving industries.
- Citizens engagement.

Thank You



DHC+
TECHNOLOGY PLATFORM

under the umbrella of



**EUROHEAT
& POWER**



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Head @DHCPlus at @EuroheatPower.
#Sustainable #energy & #heatingEU,
#research, #innovation, #districtenergy
#futureofEurope #climateAction. Own
views

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