

EUDCA × Euroheat & Power

WEBINAR 1 — HRP

# Making Heat Reuse Work

How the Heat Reuse Platform bridges the gap between data centres and district heat networks across Europe

# Today's Speakers



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# Why This Webinar Exists

## Often discussed, rarely understood

Heat reuse is frequently referenced in policy and industry circles - but the technical and commercial realities are not widely shared.

## Significant value waiting to be unlocked

Solving the heat reuse puzzle connects data centre decarbonisation with district heating infrastructure across Europe.

## A shared baseline for all stakeholders

This session establishes common ground: terminology, constraints, and what makes projects succeed or fail.

## The Heat Reuse Platform (HRP)

HRP will provide early solutions - tools, templates and matchmaking to move projects from concept to feasibility faster.

# Who This Is For

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## DHN Operators

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Owners and operators of district heat networks; permitting teams; expansion planners and sellers of heat to consumers.



## Data Centre Operators

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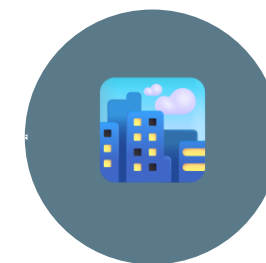
IT operators generating heat through server workloads; teams responsible for cooling design and sustainability reporting.



## Policymakers & Regulators

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Authorities setting reporting requirements, sustainability targets and compliance frameworks for energy infrastructure.



## City & Municipal Planners

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Urban infrastructure planners responsible for integrated grid and heat network planning at the city level.

# What Getting It Right Looks Like

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01

## Feasibility before commitment

Projects are assessed rigorously before capital is deployed — avoiding wasted investment on structurally unviable connections.

02

## Decisions grounded in data

Load profiles, temperature ranges, distance and grid capacity inform every commercial conversation from day one.

03

## DC operations protected

Heat reuse is designed around SLA continuity, PUE targets and cooling resilience — not as an afterthought.

04

## Repeatable, scalable processes

Standardised templates and feasibility logic mean each successful project paves the way for the next.

# 01

## Setting the Scene

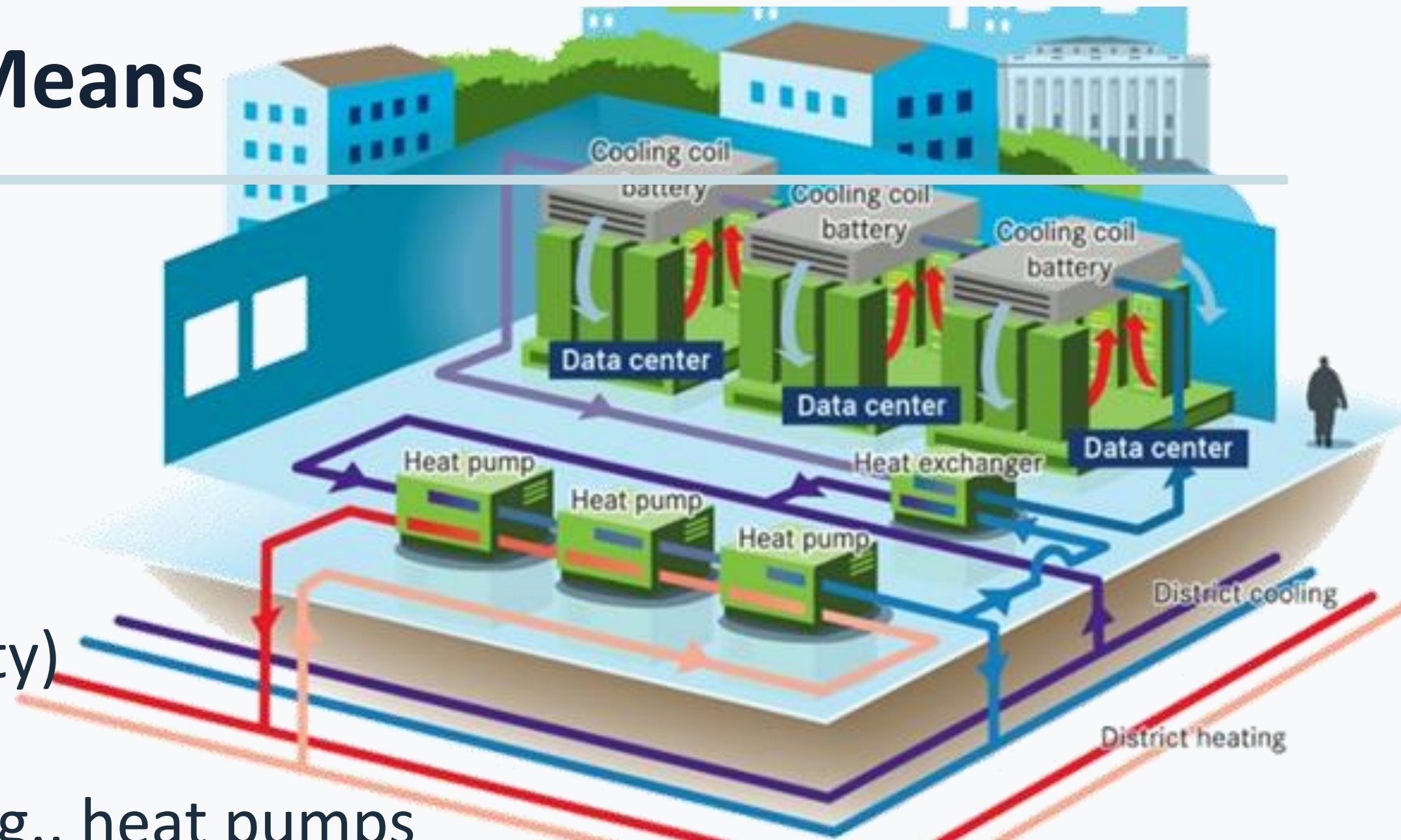


# What Heat Reuse Really Means

*It's not a plug-and-play project*

## Key considerations

- Temperature range (seasonality)
- Liquid cooling vs air cooling
- Necessity for infrastructure, e.g., heat pumps
- Heat losses and system efficiency impact outcomes

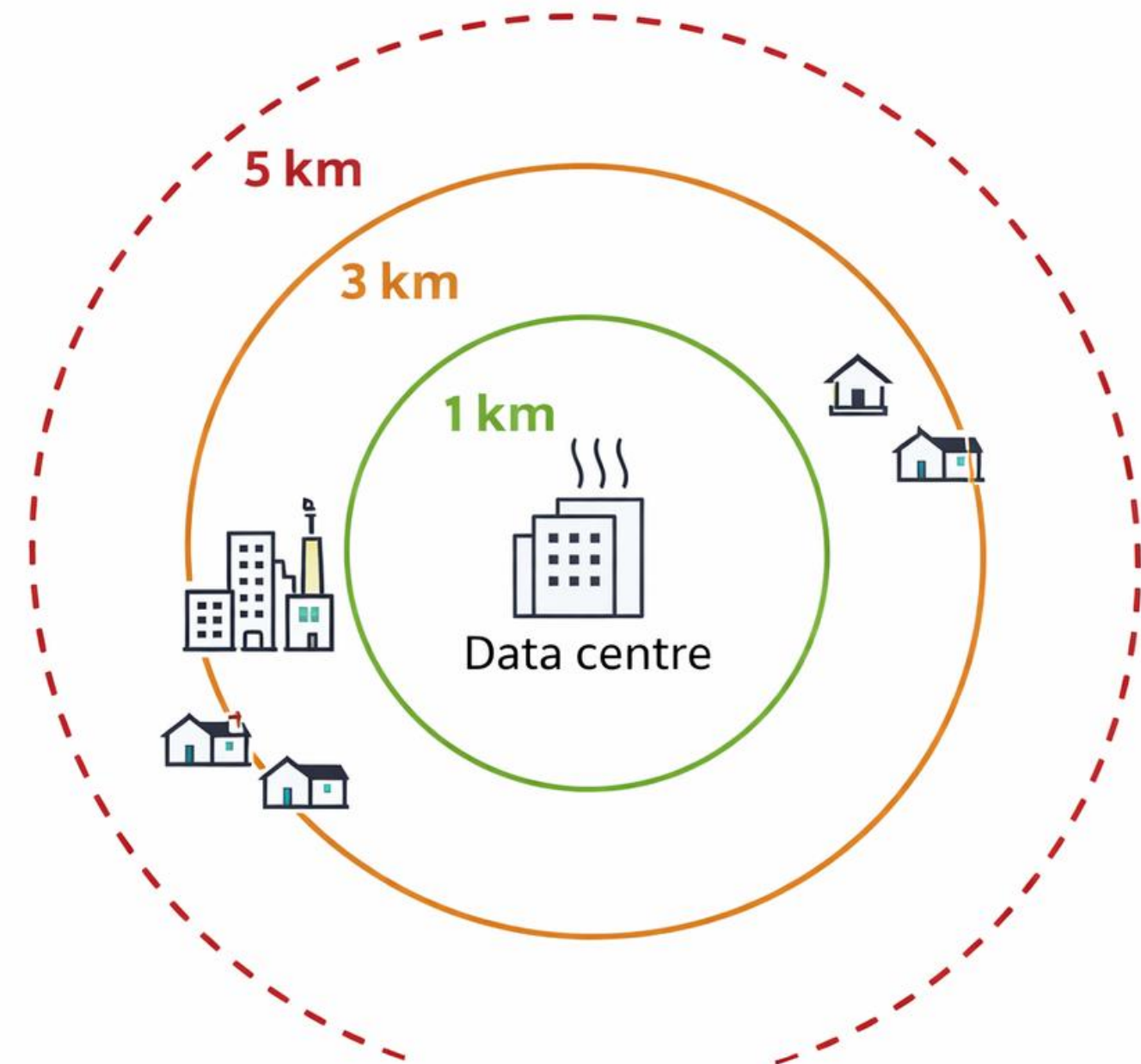


**Heat reuse is an engineered system integration across two entities — not a by-product of data centre operations.**

# Challenges to Heat Reuse

- Ownership fragmentation
- Capex vs Opex misalignment
- Space for transfer equipment
- Availability of electricity
- Importance of proximity

W



Viability decreases with distance

02

# District Heating Networks



# DHN Reality Check

## Known Realities

- DC heat is low-temperature and not always continuous
- Not every data centre is a suitable partner (cooling technology, distance)
- Existing operating DCs cannot easily adapt to DHN needs

## DHN Focus Areas

- Variable supply
- Dependence on IT load patterns and server utilisation
- Responsibility for heat uplift via heat pump
- Integration complexity and capital expenditure

## DHN Priorities

- Reliable, predictable heat input
- Projects that clearly justify the integration investment

**200 TWh residual  
heat potential by  
2050**

# Policy & Regulatory Alignment

## Current & future (?) framework

- EED:
  - DC reporting & WH use
  - Strong recognition of waste heat for DHC decarbonization
- Unlock 11% of heat demand
- Data centre energy efficiency package

## Suggestions

Modernise and develop DHC networks



Planning



De-risking and financing



Promote the use of template contracts



Incentivise data centres to offer their WH

# 03

## Data Centre Operators

# How does data center heat export work?

1 

Data centers sourcing clean and renewable energy.

3 

Heat export diverts warm water to a heat exchanger plate. Any remaining heat is released into the air through the cooling system.

5 

A heat pump increases water temperature from  $\sim 25-30^\circ$  to  $\sim 60-90^\circ$ .

2 

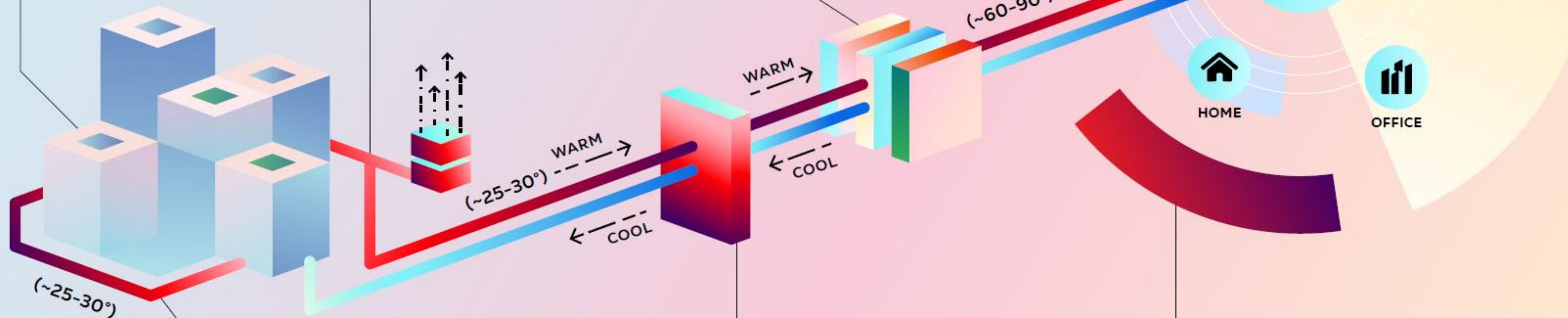
Heat ( $\sim 25-30^\circ$ ) generated by servers warms up water, which is then taken away via pipework to the data center's cooling system.

4 

Warm water reaches a heat exchange plate which warms up water in a second pipework loop.

6 

Converted heat is now suitable to be used within the community.



# Heat reuse has moved from 'nice to have' to strategic necessity

Community (via district heating networks)

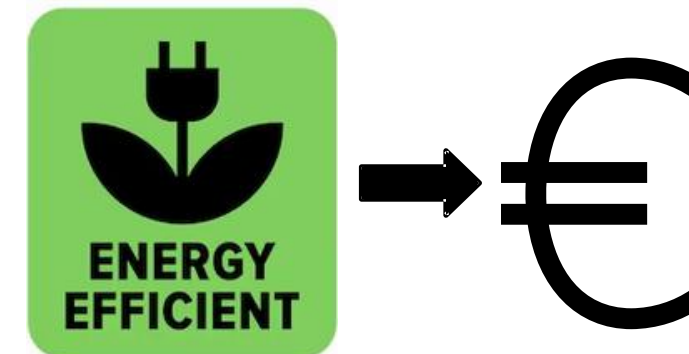
- Meet City carbon reduction targets  
Avoid fossil fuel combustion
- Improved air quality

- Improved resilience/ energy security
- Lowest cost route to decarbonisation
- Potential to relieve grid constraints

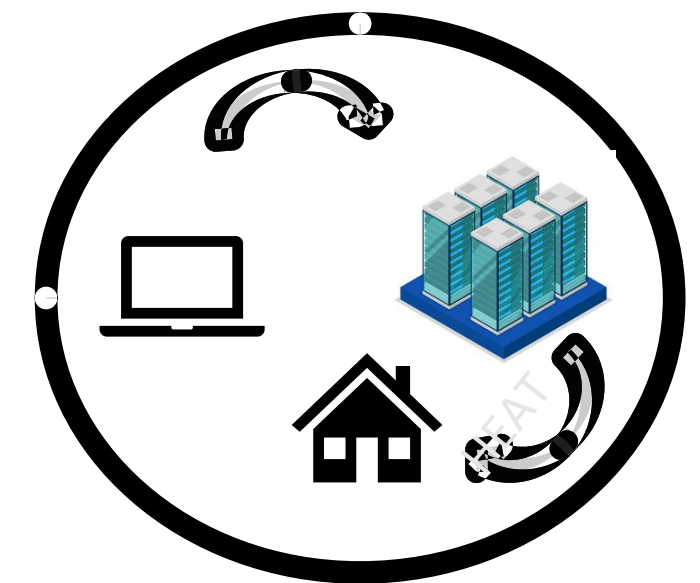
- Makes use of locally available untapped heat resource
- Job creation in heat network industry



Staying ahead of Regs



Efficient use of resources



Circular economy

Data Center operators

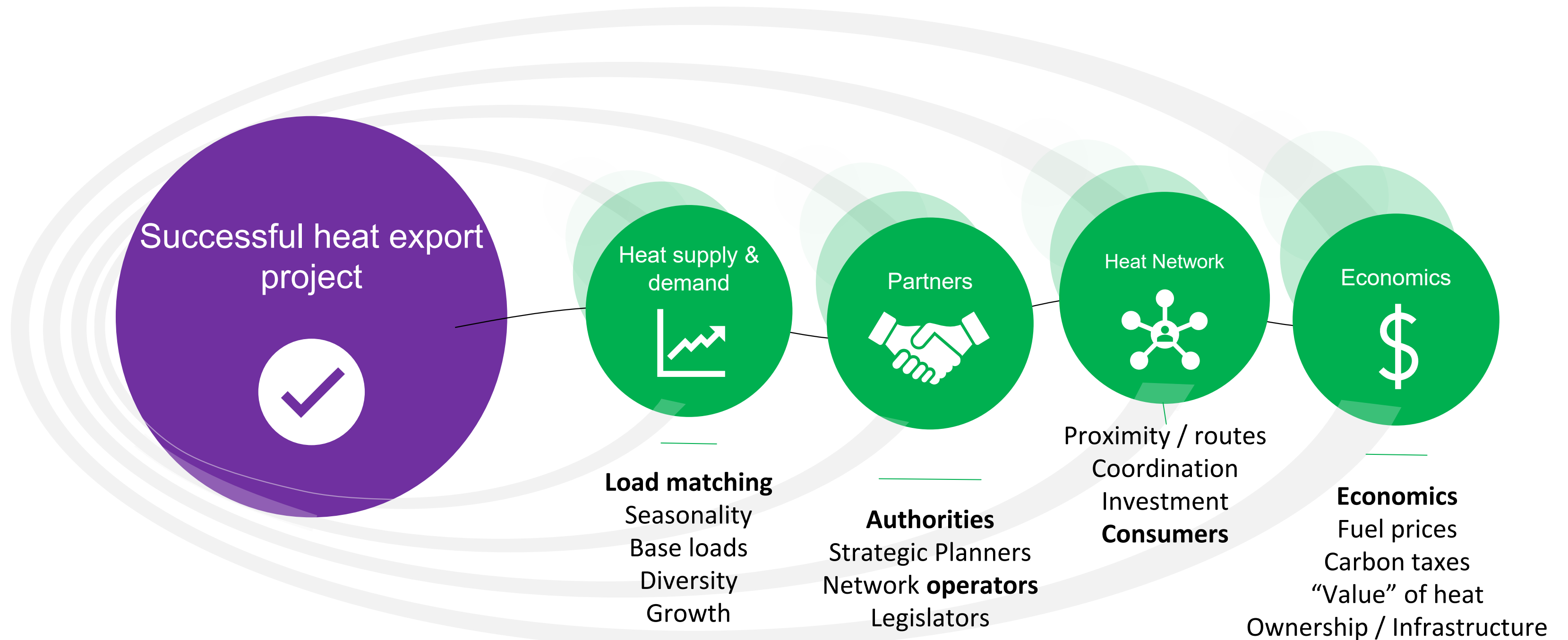
- E.g. EU Energy Efficiency Directive, Germany Energy Efficiency Law etc

- AI/high density growth means more heat to be reused
- Reduced electricity consumption for data center cooling

- Local resources for local benefit

# What makes a successful heat export project?

We need to bring the required planets into alignment



# Quantified Impact — Indicative Example for a 25MW DC

*Assumes 25MW Data Center, 70% utilisation, 15% export fraction (equating to exporting heat for about half the year in line with heat customer demands)*

**15%**

Heat export fraction  
of DC thermal output

**3,000+**

Homes equivalent that could be heated

**4,500**

Estimated winter & mid-season  
export hours per year

*\* All figures are illustrative, based on typical European project benchmarks.*

⚠ Key Risks: Low density = no scale · No anchor load = no DHN viability · Amount of heat exported ultimately depends on DHN customer demand

# Heat reuse project considerations – data center operator perspective

## Technical/ Operational Considerations

- Retrofitting older sites will often require a feasibility study
- Uptake of Liquid cooling *may* improve heat reuse viability
- Jointly agreed operational standards for shared infrastructure (temps, flow rates)
- Arranging site access for heat network operator onto data center site

## Commercial Considerations

- Most data center operators don't want to be a heat utility
- Ownership of heat pump likely to have negative PUE impact
- Preferred situation is to provide heat without guarantees
- Balancing longer term heat reuse contracts vs shorter term customer contracts

## Must haves

- SLA and uptime protection above all else (maintaining operational resilience)
- Cooling efficiency and energy performance must be maintained
- PUE, WUE and EU sustainability label compliance

# Heat reuse project phases



- Matching between DC & DHN
- Sense check for high level compatibility (temperatures, quantities of heat etc)

- ROM Feasibility Calculator
- Feasibility study

- MOU/ Heads of Terms
- Risk allocation, agreeing commercial terms

- Detailed design of heat/power infrastructure
- Utility supplies/ permitting

- Building, testing
- commissioning between DC and DHN

- Heat export is live.
- Monitoring, performance reporting, optimisation

04

# The HRP Platform



# What HRP Is

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*HRP connects stakeholders and operationalises feasibility — supporting earlier alignment across the project lifecycle.*

## Connection

 Proximity Mapping — identify viable DC-DHN pairs

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 Neutral Convening — bringing parties to the table

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 Matchmaking — structured introduction process

## Execution

 Feasibility Calculator — standardised financial model

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 Feasibility Templates — structured assessment guides

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 Meeting Guidance — agenda frameworks for alignment

# HRP System Impact

## ↓ REDUCES

Stranded heat — DC output that never reaches a network

False starts — projects that collapse after costly groundwork

Misaligned expectations between DC and DHN parties

## → ENABLES

Early triage — viability assessed before investment

Shared technical baseline across all stakeholders

RAG feasibility logic — clear red/amber/green signals

## ↑ IMPROVES

City coordination and infrastructure alignment

Decarbonisation impact at scale across Europe

Project success rate and investor confidence

# Summary

01

Heat reuse supports the decarbonisation of heating and cooling in the EU, reducing its dependence on fossil fuel imports and strengthening its energy security.

02

EU policies, regulations and directives increasingly reference heat reuse as a major lever for achieving energy and climate targets.

03

Successful projects require cross-stakeholder coordination — feasibility calculators, structured guidelines and matchmaking tools to bridge the gap.

# Q&A



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# Thank you!

The webinar recording and will be available soon

Find us on LinkedIn: [The Heat Reuse Platform](#)