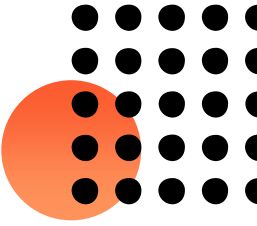


**Disclaimer: Presentation of a planned  
and upcoming project**

**Decarbonize heat supply with waste heat**

# **Enormous potential waste heat networks: New ideas and approaches for climate- neutral heat**





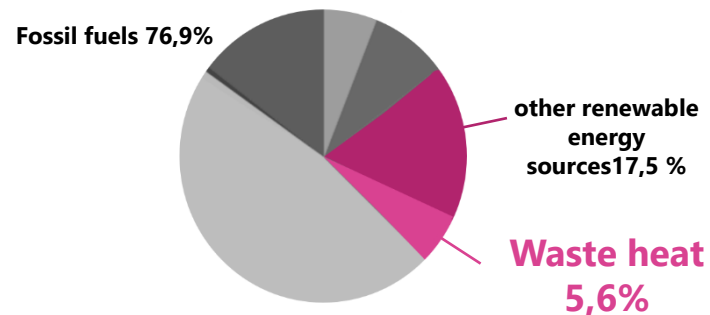
# **New ideas and approaches for untapping the enormous potential of waste heat**



- 1 Unavoidable waste heat offers tremendous potential for the decarbonization of heat supply**
- 2 Current problems and reasons for the untapped potential and the benefits of networking**
- 3 Our goal: To tap into waste heat potentials through practical offerings for existing networks and establish new networks with a focus on waste heat**
- 4 AwaNetz: as a new facilitator, create structures to scale up the use of waste heat**
- 5 Advancing decarbonization together: we invite cooperation on the topic of waste heat**

# Climate-neutral heat supply by 2045: Unavoidable waste heat offers tremendous potential for the decarbonization of heat supply

**District Heating Networks in 2023: More than 75% operated with fossil fuels!**



Quelle: Nettowärmeerzeugung (140 Mrd. kWh) in Deutschland (Statistisches Bundesamt, BDEW, 2021)

**Boom in heating system sales?**  
Today, heat supply still relies on a very high proportion of fossil fuels.

**The goals of the heat transition are ambitious.**

**Gesetzentwurf der Bundesregierung**  
Entwurf eines Gesetzes zur Steigerung der Energieeffizienz und zur Änderung des Energiedienstleistungsgesetzes

**Gesetzentwurf der Bundesregierung**  
Entwurf eines Gesetzes für die Wärmeplanung und zur Dekarbonisierung der Wärmenetze

**Novelle des Gebäudeenergiegesetzes auf einen Blick (GEG)**  
Einstieg in die Wärmewende

Bundesministerium für Wirtschaft und Klimaschutz | Bundesministerium für Wohnen, Stadtentwicklung und Bauwesen

**Our goals are clear:**  
by 2030, 50% and by 2045, 100% of heat supply should be converted to renewable energy and waste heat.

**Waste heat potentials are enormous – but scarcely utilized.**



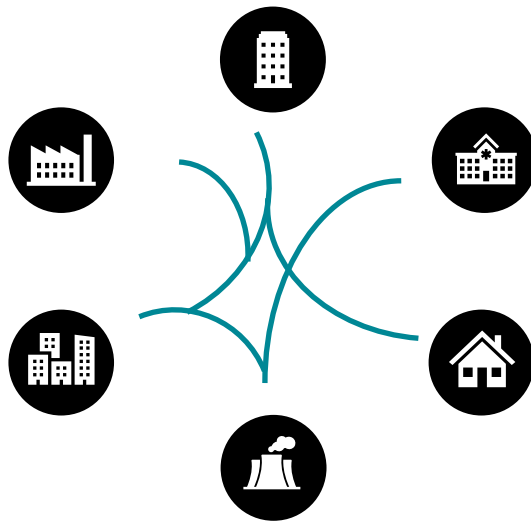
Source: Pexels

Source: Pexels

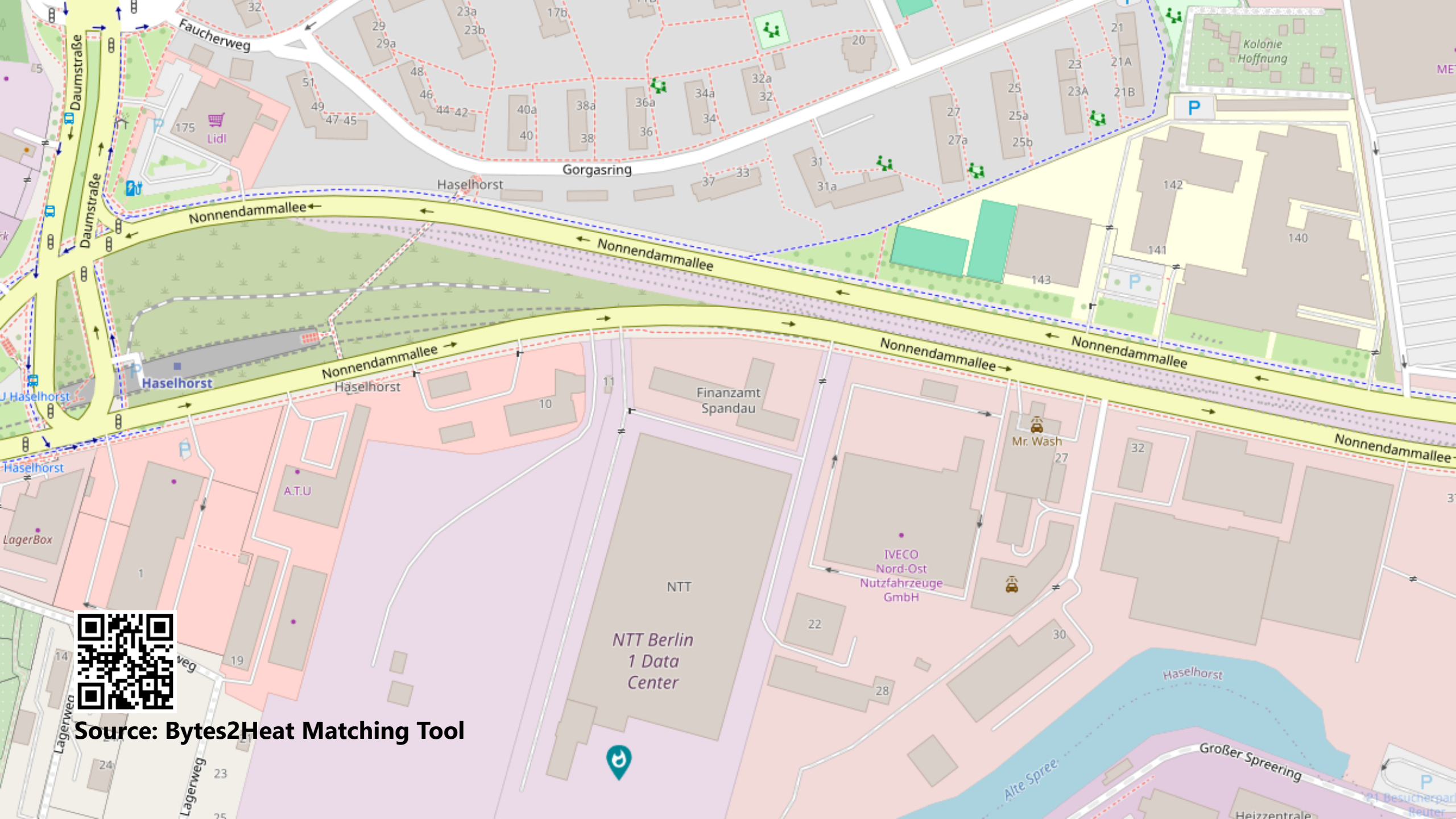
The waste heat potential of approximately 212 TWh could heat half of the households in Germany. **However, currently only about 1-2% of the total waste heat potential is utilized.**

# Current problems and reasons for the untapped potential and the benefits of networking

- waste heat sources, potential users, and infrastructure exist in close proximity – but are **unaware** of each other's presence or **potential for collaboration**
- Individual decarbonization goals **seem unattainable**
- **Stakeholders** might have experience and knowledge about waste heat, but are **isolated** and don't know corresponding stakeholders
- Participants, who might benefit from the usage or release from waste heat **lacking knowledge**
- in some areas in Germany, the expertise in waste heat and networking is advanced – but the **national connection is missing**



- ✓ discover and **recognise** the **mutual potential** of waste heat exchange
- ✓ If the potentials for more efficient energy utilization can be matched, **individual decarbonization goals** can become a **shared benefit**
- ✓ Through **peer learning** individuals collaboratively share insights, experiences, and knowledge, leading to a mutually beneficial exchange
- ✓ Inexperienced actors can **draw upon the expertise of local stakeholders** to gain valuable insights and skills.
- ✓ Established networks have the valuable capacity to **share knowledge through different locations**

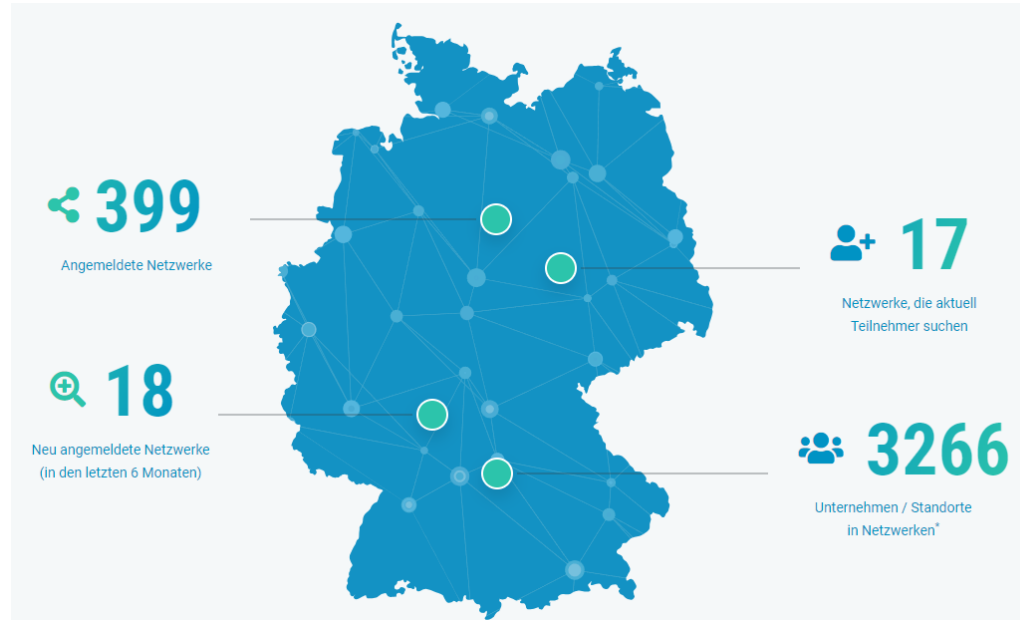


Source: Bytes2Heat Matching Tool

# Our goal: To tap into waste heat potentials through practical offerings for existing networks and establish new networks with a focus on waste heat



- Collaboration with existing **energy efficiency networks**, for example with the IEEKN
- Practical impulses, jointly developed Formats
- Increasing the number of networks, initiated projects, and thus the amount of saved greenhouse gas emissions



Source: <https://www.effizienznetzwerke.org/>



- **harnessing the enormous potential of unavoidable waste heat** for the swift decarbonization of heat supply in Germany
- With unavoidable waste heat, nearly half of all households could be heated – **only 1-2%** of these **potentials** are currently utilized



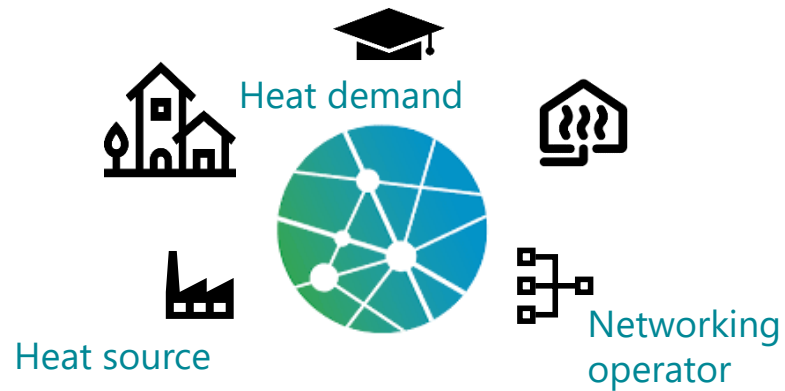
- **unlocking the topic of waste heat utilization** for a broad group of stakeholders
- As a new facilitator, **specific information and networking offerings**, along with substantive foundations and organizational structures, will be developed, piloted, and prepared to support existing and new networks and initiate real waste heat projects

# Planned project AwaNetz: as a new facilitator, create structures to scale up the use of waste heat

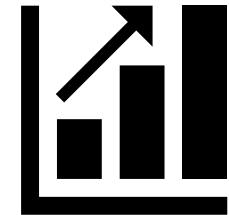
Development and establishment of a knowledge portal on "Waste Heat Utilization."



Networking of diverse stakeholders



Establishment of new networks and initiation of waste heat projects



Processed knowledge for the initiation, planning, and implementation of waste heat projects, as well as best practices for existing networks



National Waste Heat Conference and professionally guided regional exchange and networking formats



Establishment of up to ten pilot networks as an incubator for waste heat projects

# Advancing decarbonization together: we invite cooperation on the topic of waste heat – **upcoming project AwaNetz**



## **Waste heat conference** *(Abwärmefachtagung)* **on 10 October 2024**

Annual conference with a comprehensive spectrum of waste heat topics (industry, data centers, district heating, heat planning,...).

It builds on the nationally established waste heat conference from 2015 and benefits from an excellent network of heat transition stakeholders.



## **Event formats**

Networking events on waste heat conducted by AwaNetz in collaboration with thematically related networks.

## **Content of waste heat**

The tools and methods developed by the project generate relevant CO2 savings in the networks.

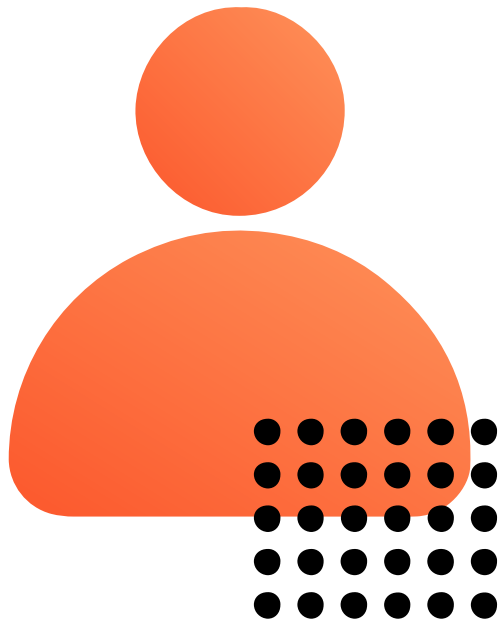


## **Implementation support**

AwaNetz develops tools and methods in the context of pilot projects. The project provides expert support throughout the project development phase, from potential analysis to actively attracting new participants and implementation. The exchange serves as a crucial momentum for the establishment of waste heat and efficiency networks as incubators for further projects.



# Thank you for your attention.



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