

Identifying H&C measures in the local context - Germany

Training Programme Act!onHeat EU
07th March, 2024

Valentin Fried
Expert for Renewable Heat,
German Energy Agency (dena)

REDI4HEAT examines the transposition of EU regulations

Funding: European Climate,
Infrastructure and Environment
Executive Agency (CINEA) EU LIFE

Project Coordination: Center for
Renewable Energy Sources (CRES)
Greece

Duration: October 1, 2022 to
September 30, 2025

Project participants: Greece,
Portugal, Poland, Croatia, Germany,
Belgium, France, Netherlands

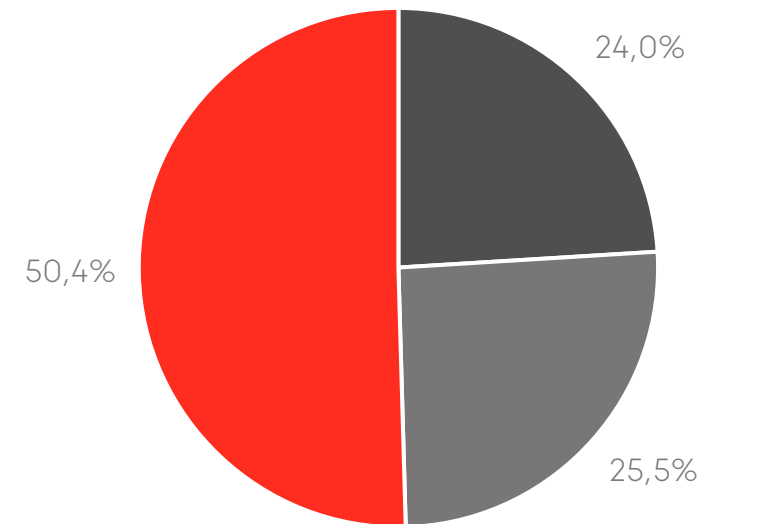


REDI4HEAT supports the RED II imple- mentation on multiple levels

1. Multi-level stakeholder dialogue
2. Evaluation of national frameworks and potentials
3. Definition of renewable H&C adoption scenarios
4. Capacity building for public authorities and local stakeholders

H&C represents more than half of Germany's energy consumption

Total energy consumption in 2022:
2,289 billion kWh



- Electricity
- Transportation (without international flights)
- Heat and Cold (without electricity)

A number of policy measures have been taken

- Funding
 - Low-emission Heating Networks (BEW):
EUR 4 billion until 2027
 - Efficient Buildings (BEG):
EUR 16,7 billion in 2024
- Others
 - Electricity and gas price breaks
 - Heat pump campaign
 - Tax support for energy renovation in buildings
 - Diverse set of accessible loans (KfW)
 - Efficiency label for boilers

Germany has rolled out a law for mandatory municipal heat planning

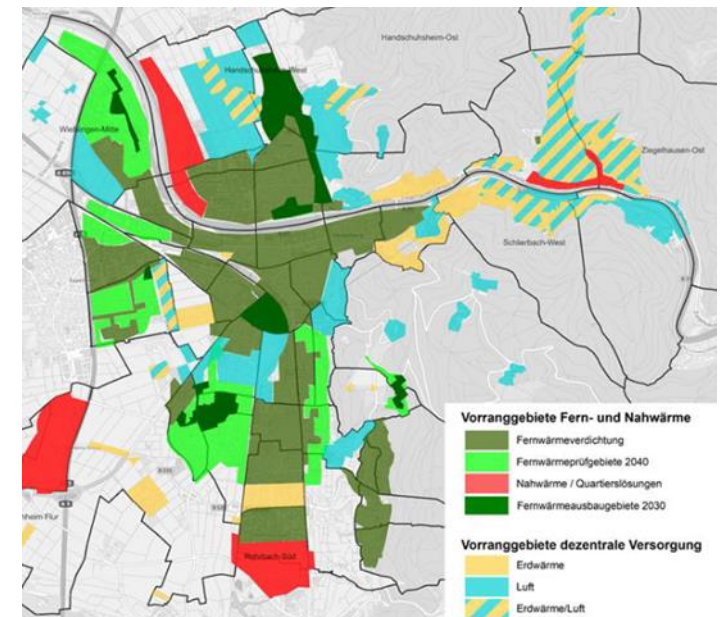
Wärmeplanungsgesetz (WPG):

- Effective since 01.01.2024
- Municipalities must conduct heat planning
 - > 100.000 inhabitants: until Summer '26
 - < 100.000 inhabitants: until Summer '28

Goal: cost-efficient, sustainable, economical, affordable, resilient and greenhouse-gas-neutral heat supply by 2045

The heating plan must divide the ground into prospective heat supply areas

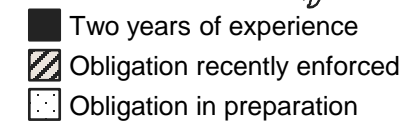
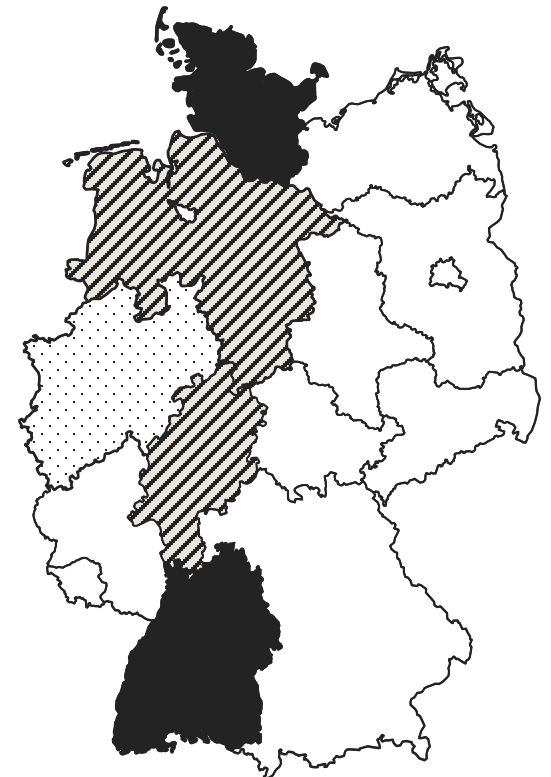
- Heating grid areas
- Hydrogen grid areas
- Decentral heat supply areas
- Review areas



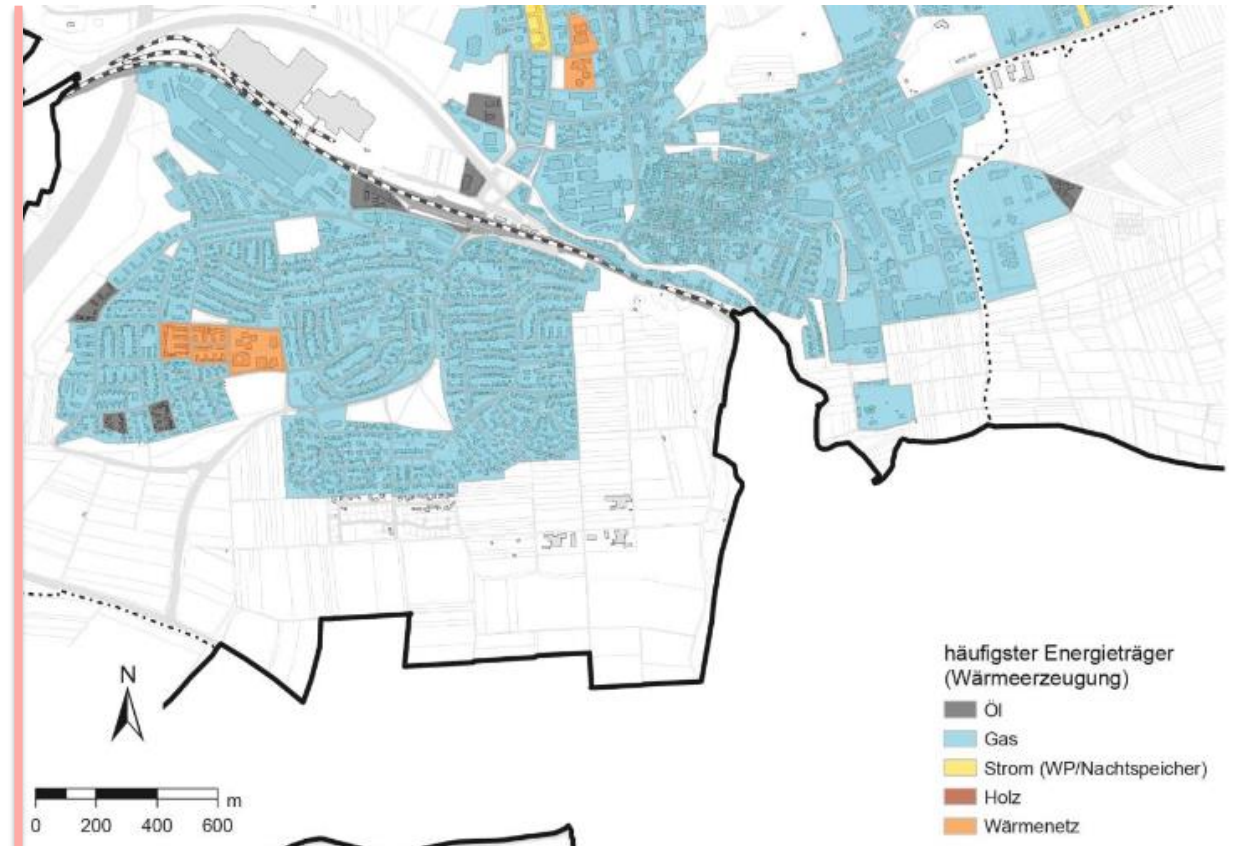
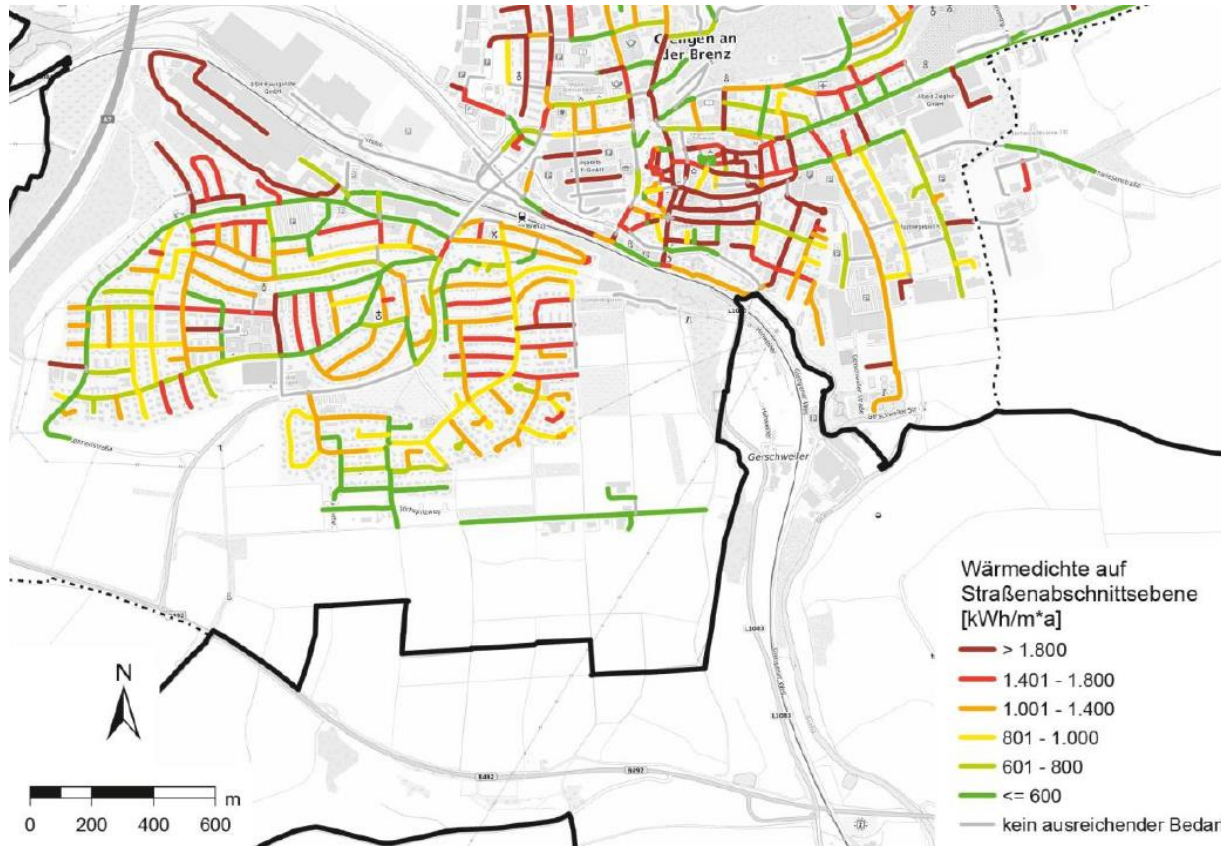
Source: [Municipal heating plan Heidelberg, 2023, p.12](#)

Heat planning rules are not entirely new

- Two federal states have already heat planning rules in force
- As of October '23, at least 627 municipalities are already working on their heat planning
- Remaining 10,000 municipalities have to complete their heat planning by mid of 2028



Stock Analysis



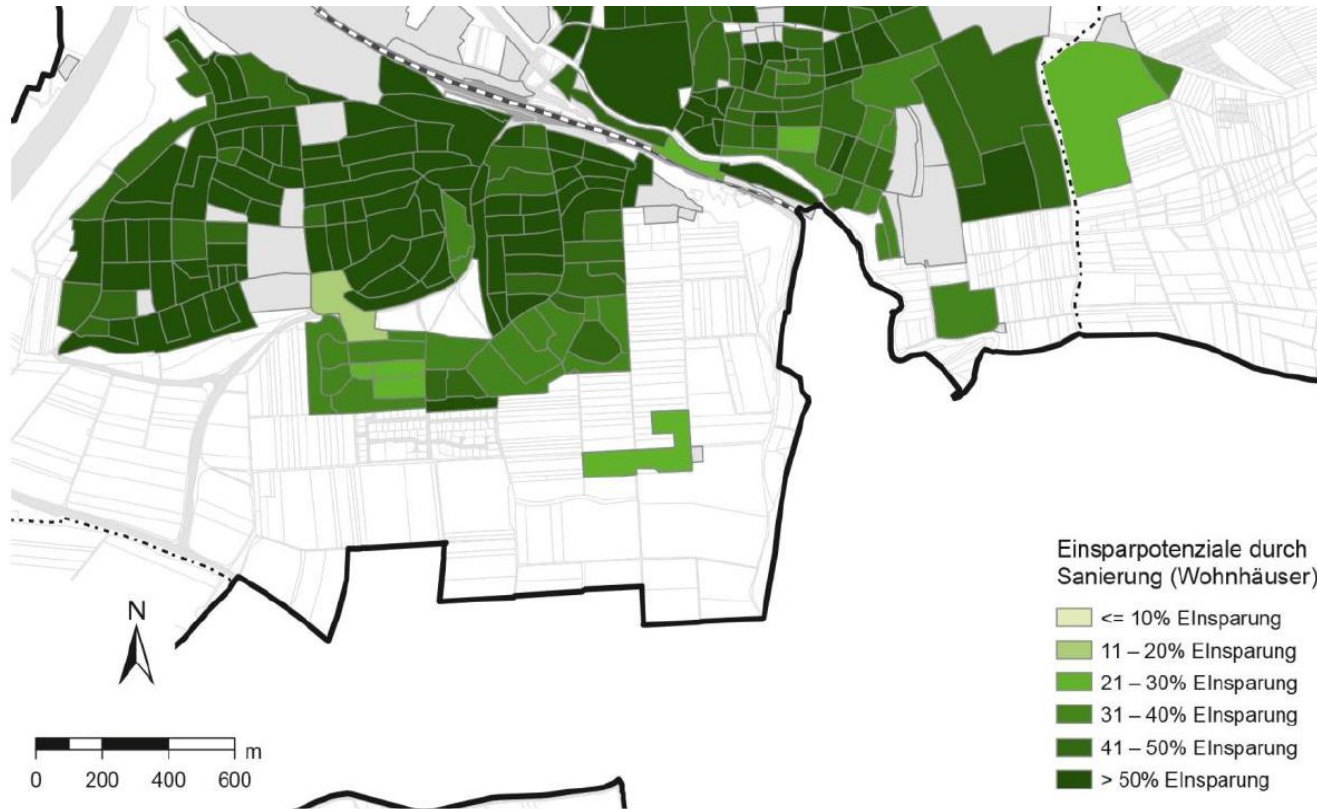
Source: City of Giengen an der Brenz: Final report on municipal heat planning for Giengen an der Brenz. 2023, p. 16-18



Co-funded by
the European Union

Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or CINEA. Neither the European Union nor the granting authority can be held responsible for them.

Potential Evaluation



Source: City of Giengen an der Brenz: Final report on municipal heat planning for Giengen an der Brenz. 2023, p. 24-26

Area specific determination and spatial representation of existing potentials

Goal: use of a high proportion of local energy sources



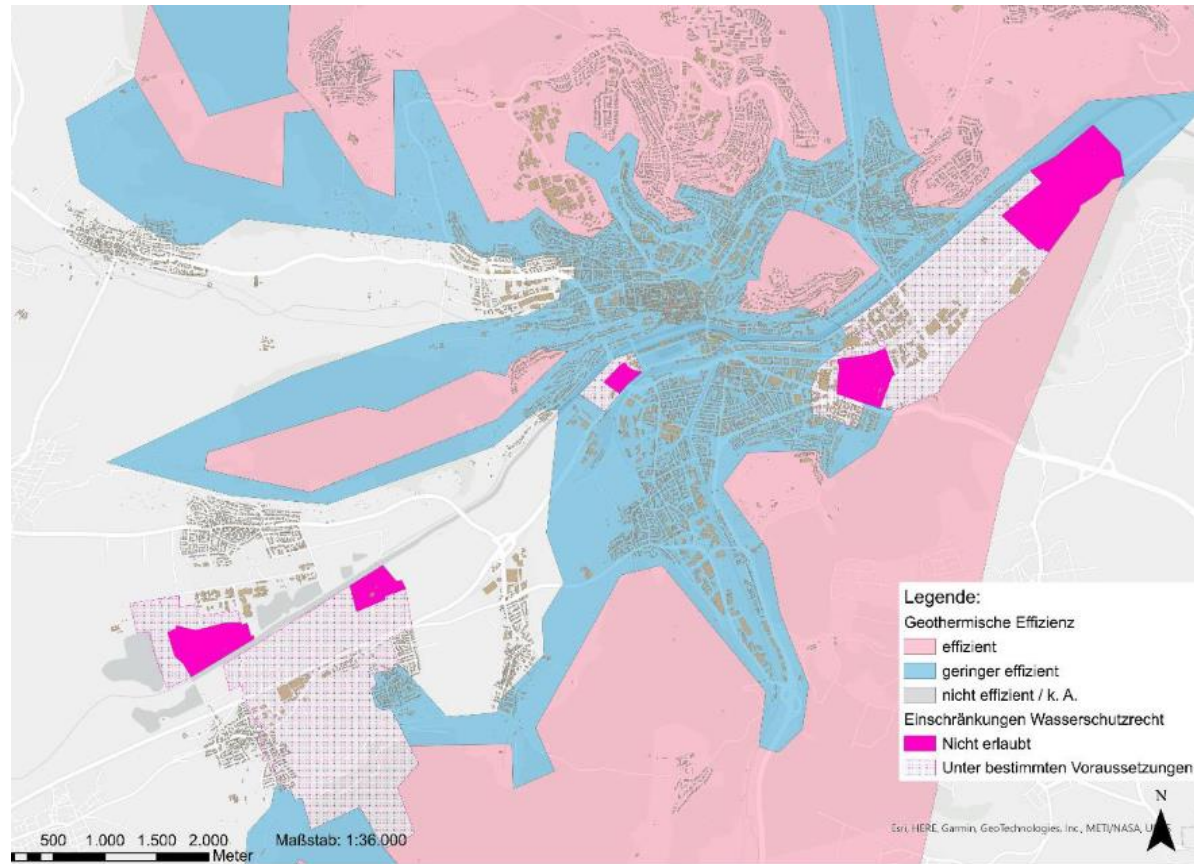
Co-funded by
the European Union

Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or CINEA. Neither the European Union nor the granting authority can be held responsible for them.

Potential Evaluation

Examples of potentials:

- Energy efficiency improvements
- Solar (PV & Thermal)
- Geothermal
- Biomass & Biogas
- Heat potentials from rivers and lakes
- Waste heat



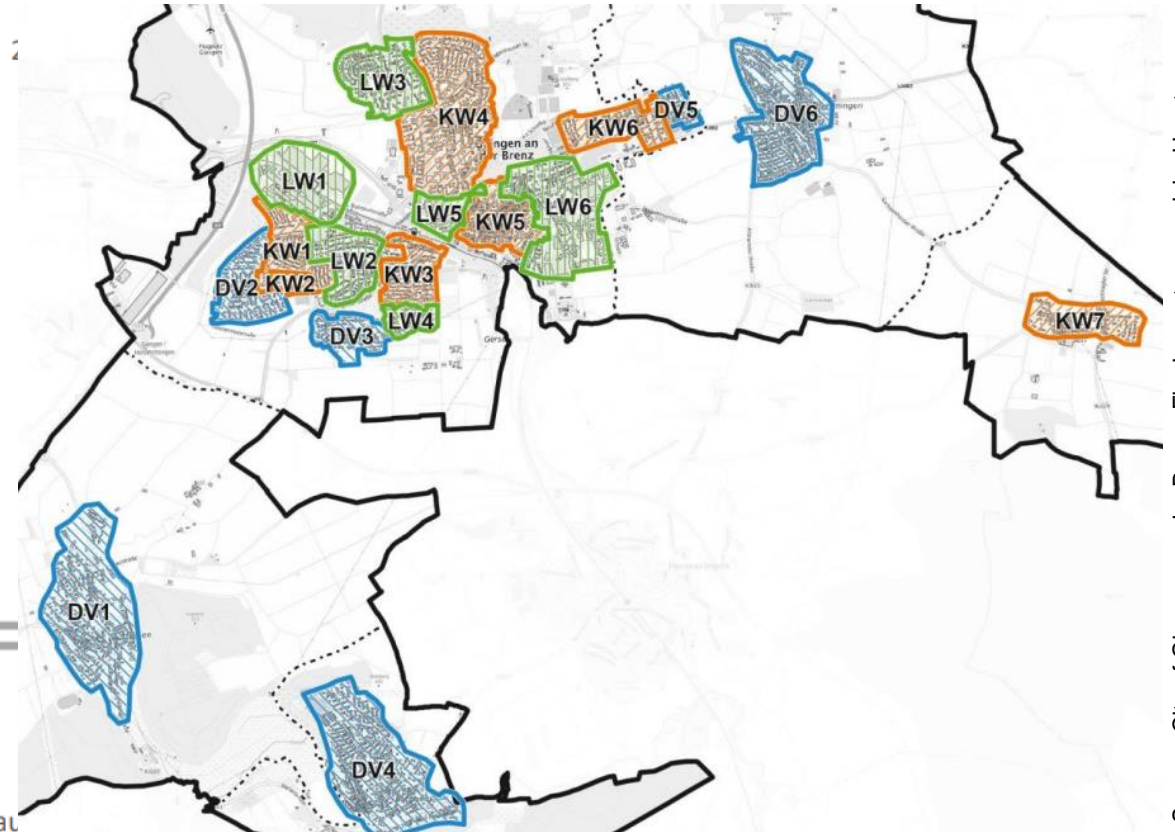
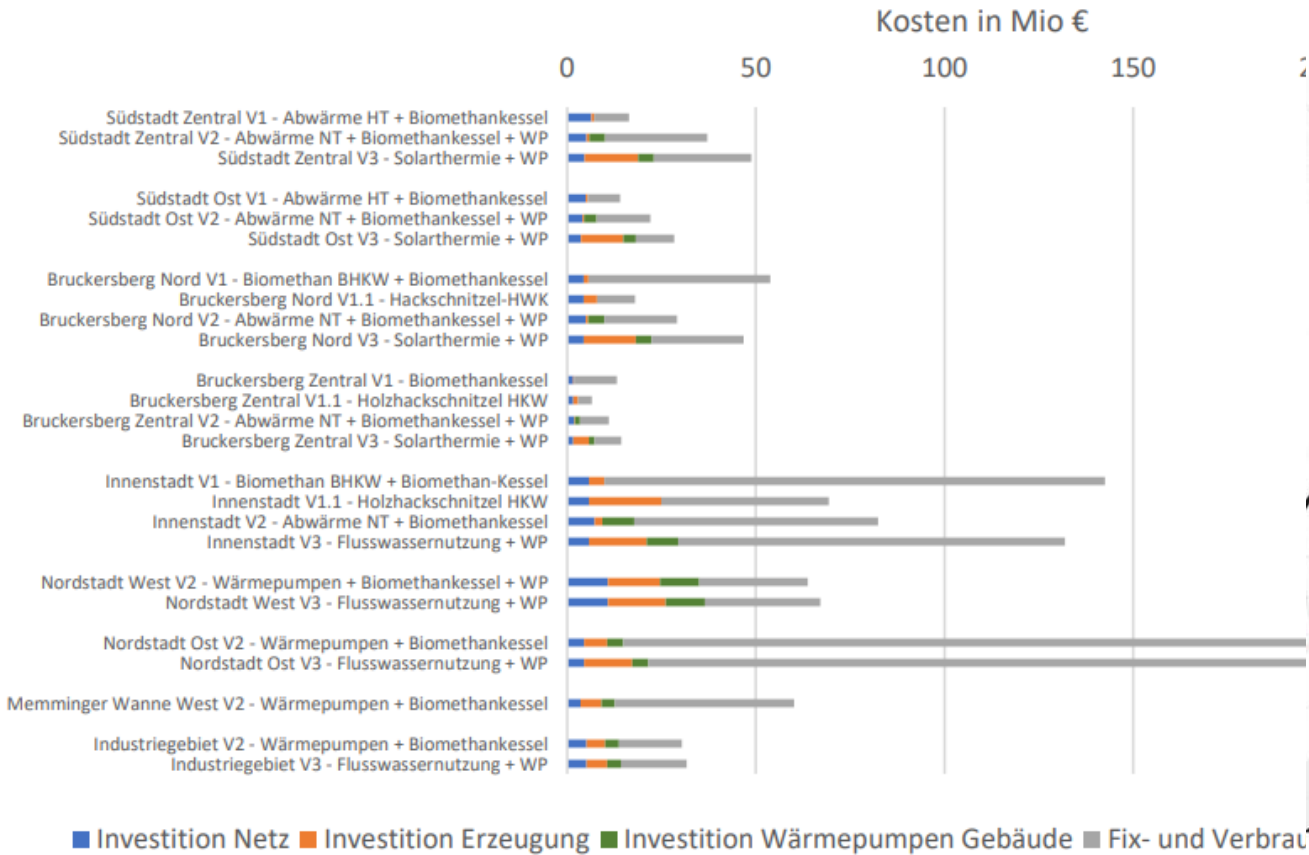
Source: Geothermal efficiency and exclusion zones, from University City of Tübingen: Municipal heat planning, 2023, p.28



Co-funded by
the European Union

Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or CINEA. Neither the European Union nor the granting authority can be held responsible for them.

Target Scenarios



Source: City of Giengen an der Brenz: Final report on municipal heat planning for Giengen an der Brenz. 2023, p. 38



Co-funded by
the European Union

Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or CINEA. Neither the European Union nor the granting authority can be held responsible for them.

Municipal heat planning requires the involvement of multiple actors

- Municipalities, (potential) energy suppliers and heating grid operators must be actively involved
- The public and everyone with justified interest must be informed
- Optional involvement (among others):
 - Emitters of heat or producers of gas
 - Large consumers of heat and gas
 - Energy communities*

*Municipalities with > 45.000 inhabitants must evaluate the contribution potential of energy communities

Process of Municipal Heat Planning



Thank you!

REDI4HEAT Website

redi4heat.ehpa.org

Valentin Fried

valentin.fried@dena.de