



KoWa-Webpage



KoWa-results (German Webpage)

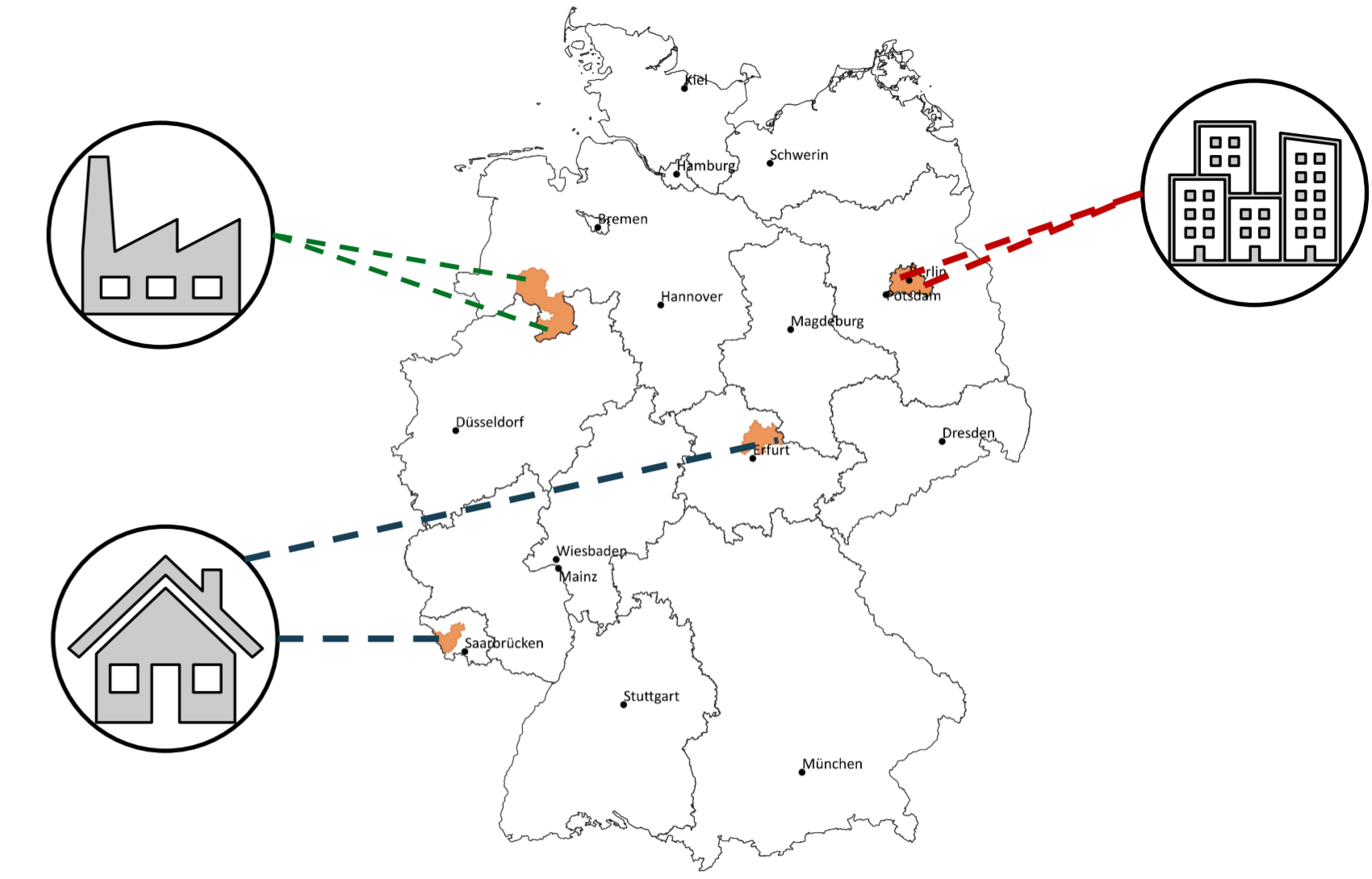
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Grafik: WERNERWERKE GbR, Berlin.



- Industry cluster**
 - Use of industrial waste heat
- Urban Cluster**
 - urban building und infrastruktur
- Cluster with Existing infrastructure**
 - small-town building structure and existing heating network

KoWa - Heat transition in municipal energy supply

The research project KoWa - 'Heat transition in municipal energy supply' aims to support municipal utilities in the development of sustainable heat supply systems. The focus points of the project include a stakeholder analysis as well as a multi-criteria sustainability assessment.

Situation in Germany

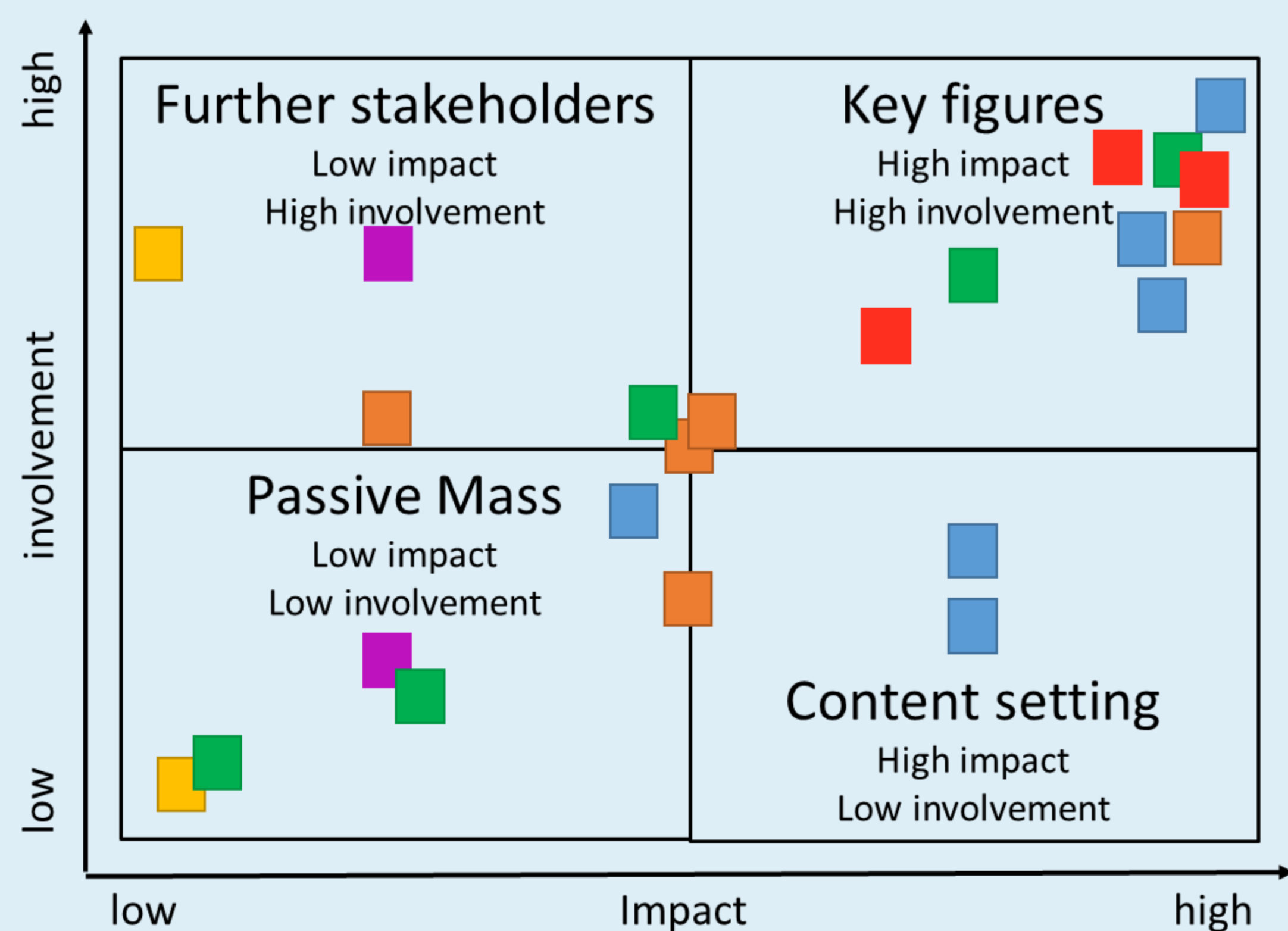
- Greenhouse gas emissions from the building sector are not falling fast enough (115 Mio. CO_{2eq} in 2021)
- Space heating and hot water correspond to over 80% of the energy consumption for living (511 TWh + 106 TWh in 2019)
- Share of renewable energies is low (15 % in 2019)

Stakeholder Analysis

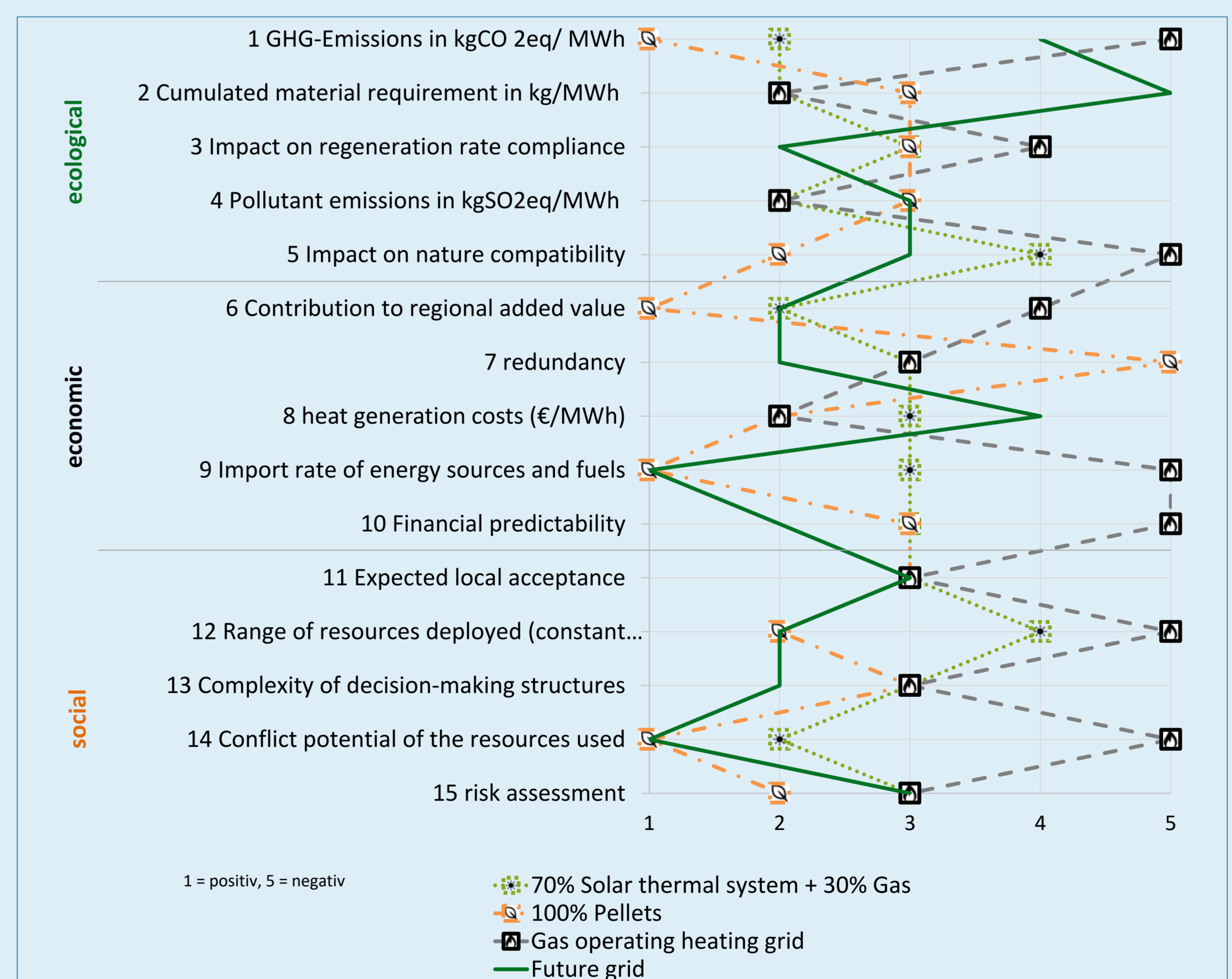
For the stakeholder analysis, a total of 45 interviews were conducted in six study areas (two in each cluster). We chose the interview partners on the basis of existing studies, e.g. Dunkelberg et al. Content logs were prepared by the research team. These were analysed using a qualitative content analysis based on Mayring (Mayring & Fenzl 2019; Prainsack 2021). Method describes in Welz et al. (2021).

Sustainability assessment

As part of the project, various heat supply options were designed in the six study areas and compared using a multi-criteria sustainability assessment. In order to ensure a comparable and transparent procedure, the methodology was developed on the basis of sustainable economics and published in a method description (Gapp-Schmeling et al., 2021).



Citizens	Low impact, Low involvement
Energy companies	High impact, High involvement
Subject matter experts	High impact, Low involvement
Industry	High impact, High involvement
City and politics	High impact, Low involvement
Housing industry	High impact, High involvement



Literature:
 Dunkelberg, E., Gährs, Swantje, Weiß, Julia, Salecki, S. (2018): Wirtschaftlichkeit von Mehrleiter-Wärmernetzen zur Nutzung von Niedertemperaturwärme. Schriftenreihe des IOW 215/18.
 Gapp-Schmeling, K., Hewelt, F., Meyer, M., Rogall, H., Schmidt, C., Waldhoff, C., ... Wern, B. (2021). Nachhaltigkeitsbewertung kommunaler Wärmeversorgungsoptionen. Methodenbeschreibung (KoWa-Berichte). Retrieved from https://www.kowa-projekt.de/wp-content/uploads/kowa_2021_10/kowa_APA-Methode-Konzeptbewertung_fin.pdf
 Mayring, Philipp & Fenzl, Thomas (2019). Qualitative Inhaltsanalyse. In Nina Baur & Jörg Blausius (Hrsg.), Handbuch Methoden der empirischen Sozialforschung (S.633-648). Wiesbaden: Springer.
 Prainsack, Barbara & Pot, Mirjam (2021). Qualitative und Interpretative Methoden in der Politikwissenschaft. Wien: ubi/Facultas.
 Welz, Anna Masako, Gapp-Schmeling, Katharina & Becker, Daniela (2021). Erhebung der Akteursstrukturen. Methodenbeschreibung. IZES - Institut für ZukunftsEnergie- und Stoffstromsysteme & HWR Berlin. Berlin, Saarbrücken 2021. https://www.kowa-projekt.de/wp-content/uploads/kowa_2022_04/kowa_Ap-4-Methode-Akteursanalyse.pdf

Project Profile

Projekt title	KoWa – Wärmewende in der kommunalen Energieversorgung (Heat transition in municipal energy supply)
Funding indicator	03EN3007
Project duration	01/2020 bis 12/2022
Keywords	Wärmewende, Nachhaltigkeitsbewertung Akteure, Technologie, Potentialanalyse, Umsetzungsleitfäden
Project type	practice and science

Autors

Prof. Dr. Katharina Gapp-Schmeling
 Institut für ZukunftsEnergie- und Stoffstromsysteme gGmbH
gapp-schmeling@izes.de