

# Sociological considerations on the public acceptance of Deep Geothermal Energy in South-East Germany

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## Introduction

- geothermal heat and power projects (GHPP) as a trigger for social resistance in South-East Germany [Kunze 2017; Flechtner 2019]; (Fig. 1)

Aim of the research project

- identify and categorize 'acceptance criteria' (Figs. 2 and 3) crucial to assess GHPP in various population groups
- strategy to reduce and prevent scientifically unsubstantiated concerns and overall objections against GHPP (Fig. 6)

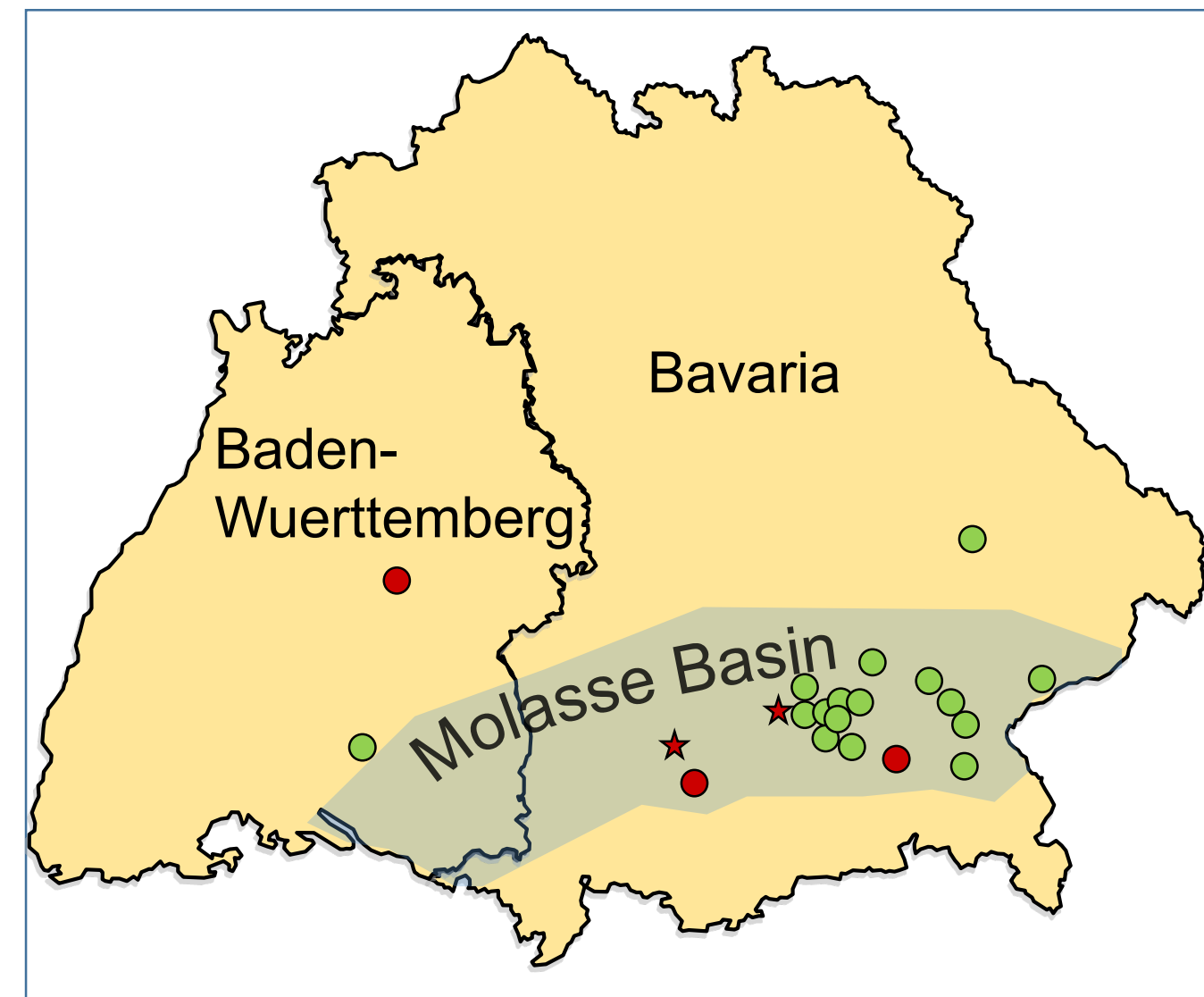


Figure 1: Scheme of realized and cancelled GHPP in South Germany.

## Methods

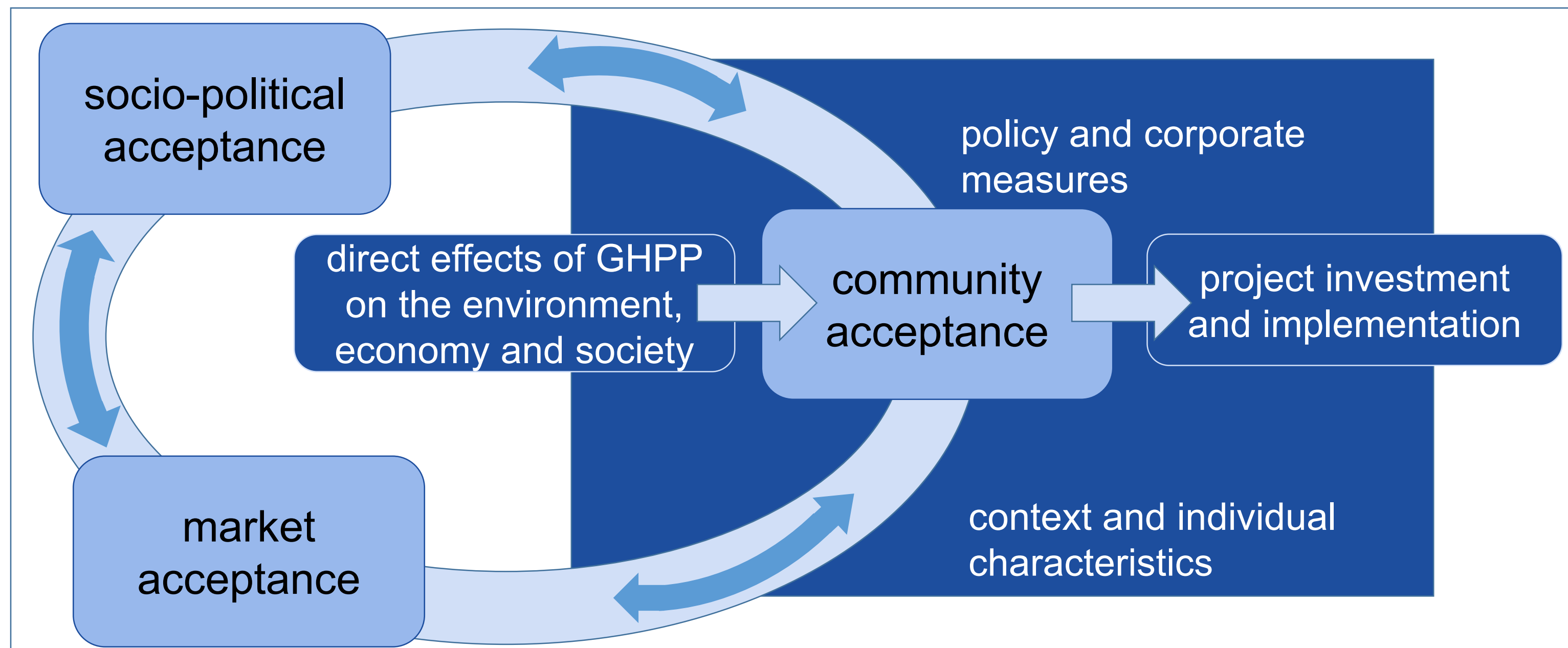


Figure 2: Three types of acceptance according to Wüstenhagen et al. (2007) in a modified model of Leiren et al. (2020) to picture the different aspects of acceptance categories regarding the geothermal topic.

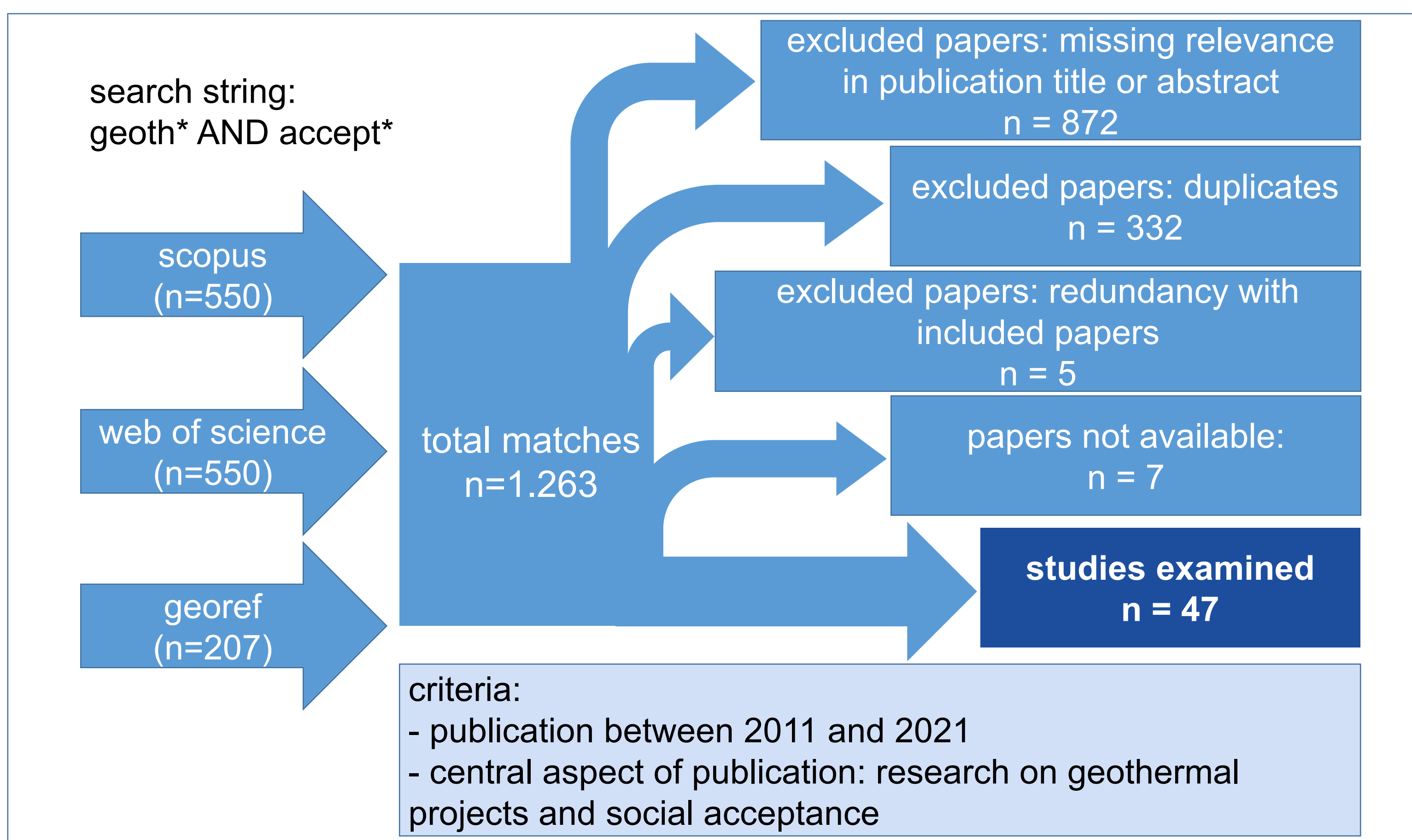


Figure 3: Method for selection of the relevant papers for the literature review.

## Global context

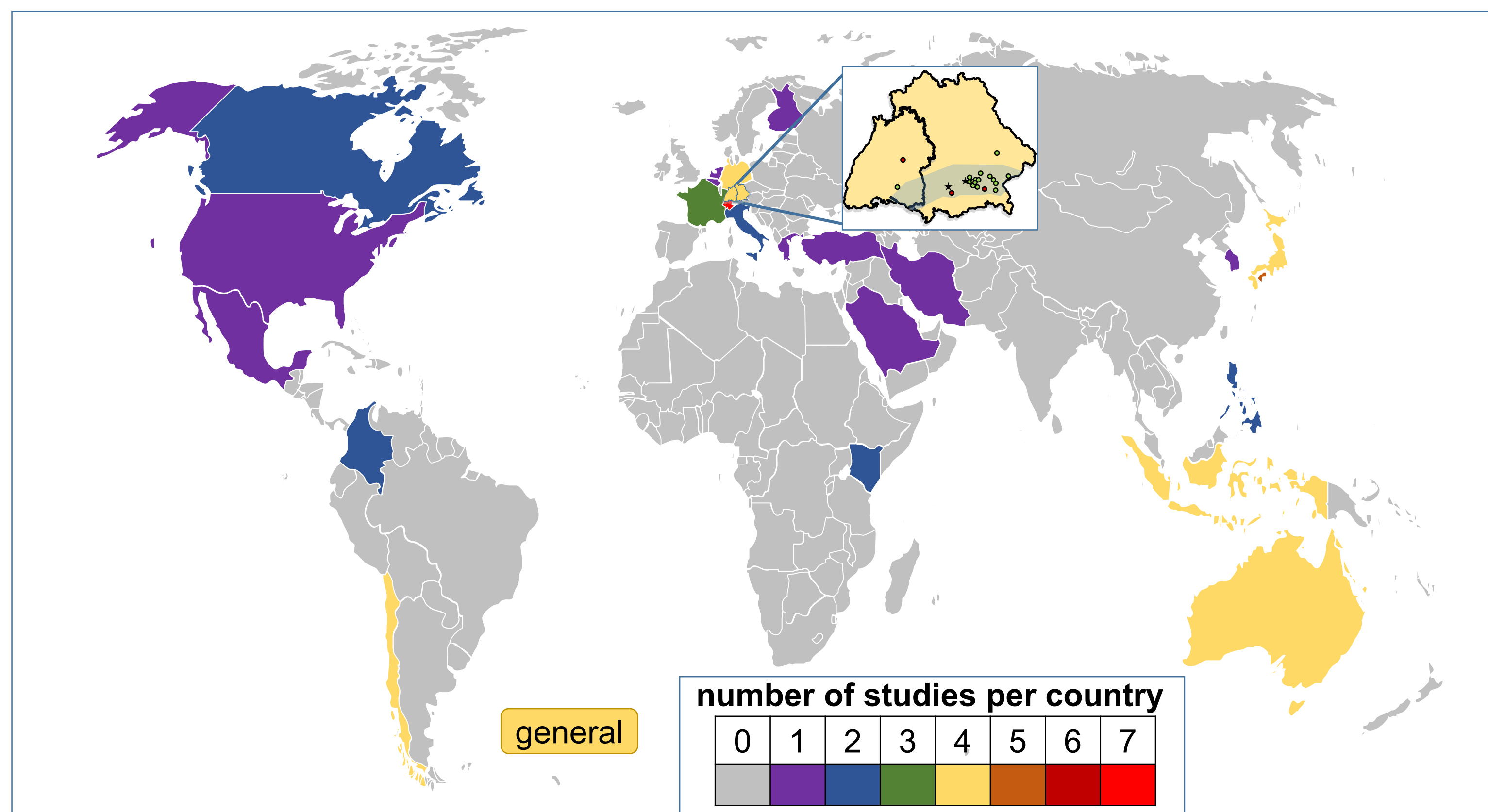


Figure 4: Number of studies examined per country in the global context and insert map of South Germany with GHPP.

## Results

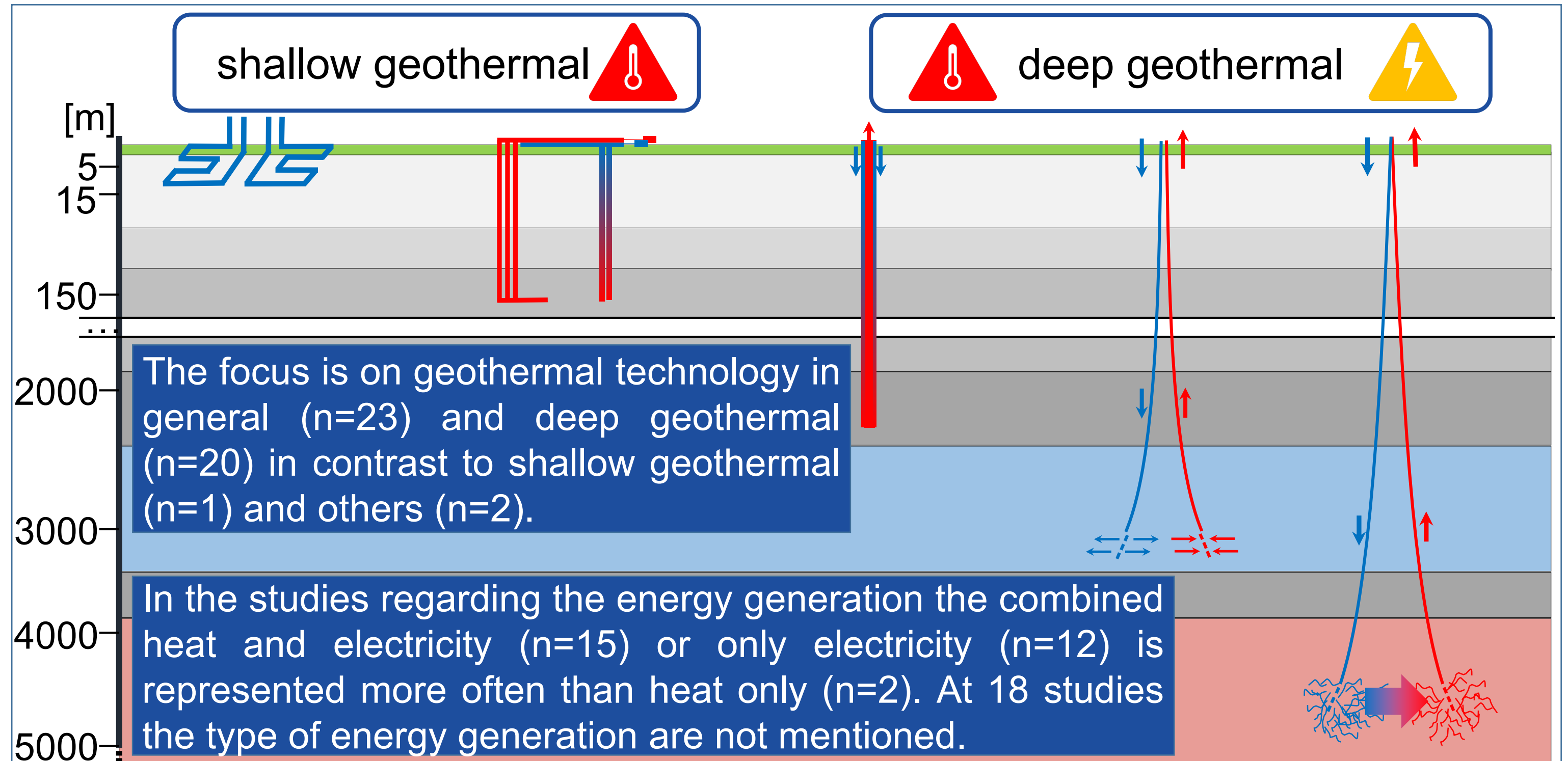


Figure 5: Visualisation of geothermal technologies (own graphic based on Jodocy et al. 2007 in Stober, Bucher 2020).

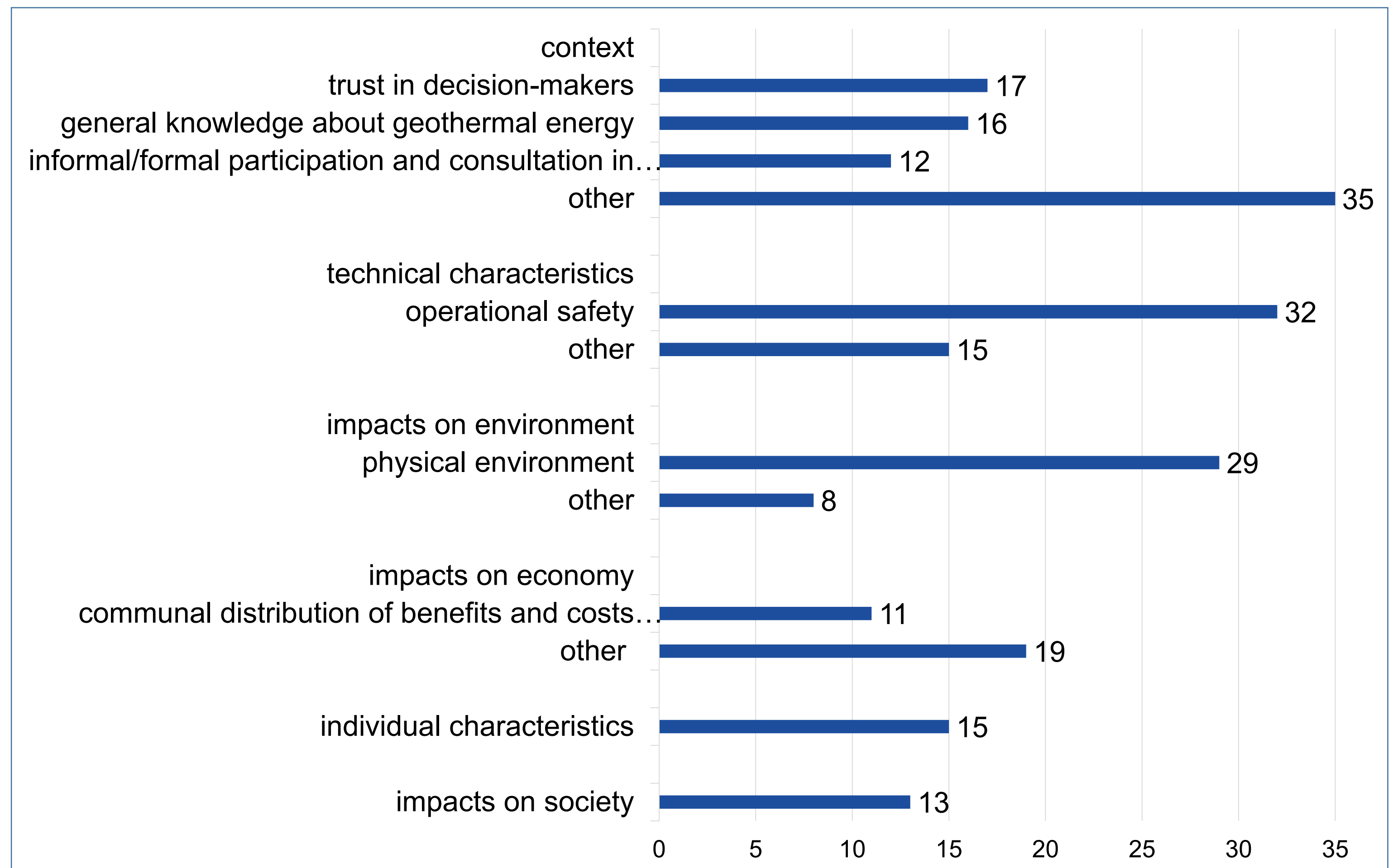


Figure 6: List of acceptance factors used in the observed papers and sorted by acceptance categories. (If mentioned less than ten times, the acceptance factor is summarized in „other“.)

## Discussion and open questions

- increased focus in recent scientific publications indicates growing significance of geothermal-relevant acceptance factors (Fig. 4)
- the evaluation of the geothermal-relevant acceptance factors (Figs. 5 and 6) needs to be comprehensible created and depends on various factors such as: type of methodology used, sample size, number of sources analysed and the positive or negative impact on acceptance regarding GHPPs

## Next Steps



Figure 7: Overview of the next steps regarding the research project.

## References

Flechtner, Ferdinand; Loewer, Markus; Keim, Maximilian (2019): Bürgerentscheid gegen Geothermie - Fallstudie Puchheim. In: *Energy Research & Social Science* 27, S. 174-180. DOI: 10.1016/j.erss.2016.11.007.  
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