



*Supplement of*

## **The importance of social science research in nuclear waste management shown by three projects on public participation**

**Annika Froese et al.**

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Bundesamt  
für die Sicherheit  
der nuklearen Entsorgung

# **The importance of social science research in nuclear waste management shown by three projects on public participation**

**SafeND 2023**

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Federal Office for the Safety of Nuclear Waste Management**

# Overview

- Summary: social science research improves public participation and therefore safety
  - Project EWident (Repeated Representative Survey)
  - Project DigiBeSt (Digital Participation Instruments)
  - Project HErüber (Cross-Border Participation)
- Conclusion

# Summary

Public participation can improve safety:

1. Disposal practices may be improved by the general public's input.
2. Public participation may increase the acceptability of disposal, which is important to ensure successful implementation.
3. Public participation serves to preserve knowledge and maintain competence.

Social science research in nuclear waste management can improve public participation and therefore safety. We illustrate this claim with the help of three projects on public participation.

# Project Overview

## The Site Selection Procedure in Germany: Knowledge, Attitudes and Demands – Repeated Representative Survey (EWident)

### Goals:

- Learn what people care about to adapt public participation strategies accordingly
- Identify areas needing further research

### Methods:

Survey Period 1 (2020)	Survey Period 2 (2021/22)
N=2.500 min. 14 years (tel.)	N=2.500 min. 14 years (tel.)
N=672 14-27 years (online)	N=500 min. 14 years (online)
	N=504 in 4 focus regions (tel., min. 125 per region)

### Contractor:

aproxima Gesellschaft  
für Markt- und  
Sozialforschung  
Weimar mbH

# Results

1. In comparison to the first survey, the second survey showed an increase in public awareness of the site selection procedure.
2. Knowledge about the details of the site selection procedure seems to have decreased. For instance, people in the second survey knew less about the institutions involved in the search process.
3. All things considered, the Germany's repository search enjoys public support.
4. In the second survey, an increased number of respondents claim the public has to be involved for the site selection procedure to succeed. Yet, the personal desire to participate remains relatively low.
5. Some deviations are evident in the four focus regions. People there are somewhat better informed about the process and current status of the repository search, yet slightly less interested in participating actively.

# Looking ahead: the next survey period

The survey will be repeated every two years.  
This allows BASE to:

- Detect trends, such as changes in awareness of and knowledge about the site selection procedure
- Adapt the questions asked to reflect changing circumstances
- Focus on particular regions as the search area decreases

# Project Overview

## "Possibilities and Limitations of Digital Participation Instruments for Public Participation in the Site Selection Procedure (DigiBeSt)"

### Goals:

- Evaluate BASE's use of digital participation instruments in light of the current state of participation science
- Help BASE develop and adapt public participation formats

### Methods:

1. Literature Review of recent publications on participation
2. Focus Groups with both organizers and participants of four public participation projects
3. Transdisciplinary Workshop with digital participation experts

### Contractors:

Düsseldorfer Institut  
für Internet und  
Demokratie (DIID),  
Heinrich-Heine-  
Universität Düsseldorf

nexus Institut für  
Kooperations-  
management und  
interdisziplinäre  
Forschung



# Results

- **Gender:** Men are overrepresented in visible and confrontative forms of participation (e. g. commenting on political statements), women in less visible, less confrontative forms (e. g. signing petitions).
- **Age:** Young people prefer low-stakes, expressive, one-off forms of participation (e. g. sharing of political content). Older generations participate in digital formats less frequently, but if they do, their use is more extensive and effective.
- **Education:** The key determinant of unequal representation in participation formats. People with higher education levels are almost always overrepresented.
- **Social status** (combination of education, income and employment): People with high social status use digital participation tools more often and use them more effectively.

**The use of digital tools  
does not solve issues  
of underrepresentation.**

# Results

<b>Mobilization Factors</b>	
Personally addressing the target group	Let users decide which information they share
Use established mass media	Create opportunities for socializing
Provide accessible information	Use expert presenters
Offer individual feedback	Initiate public participation early in the process
„Caring actors“ like schools	Strengthen institutionalization

## **Factors emphasized in the focus groups:**

- Young people fear condescension, want their input to be appreciated
- Digital tools need appealing designs
- Participation shouldn't require too much investment

The **transdisciplinary workshop** with digital participation experts allowed BASE to:

- Critically reflect the project's results
- Begin developing new participation formats based on the results
- Connect with experts to strengthen future cooperation

# Project Overview

## "Challenges and Success Factors in Cross-Border Public Participation in the Site Selection Procedure (HERüber)"

### Goals:

- Help BASE understand legal requirements and socio-cultural expectations for a potential involvement of foreign public
- Develop recommendations how cross-border participation should be structured

### Methods:

- Literature review including legal analysis
- 3 in-depth case studies on previous procedures of cross-border participation
- 5 case studies on foreign regions bordering Germany to identify expectations regarding public participation

### Contractor:

Unabhängiges Institut  
für Umweltfragen UfU -  
e.V., Berlin

Öko-Institut e.V.,  
Freiburg

# The importance of context

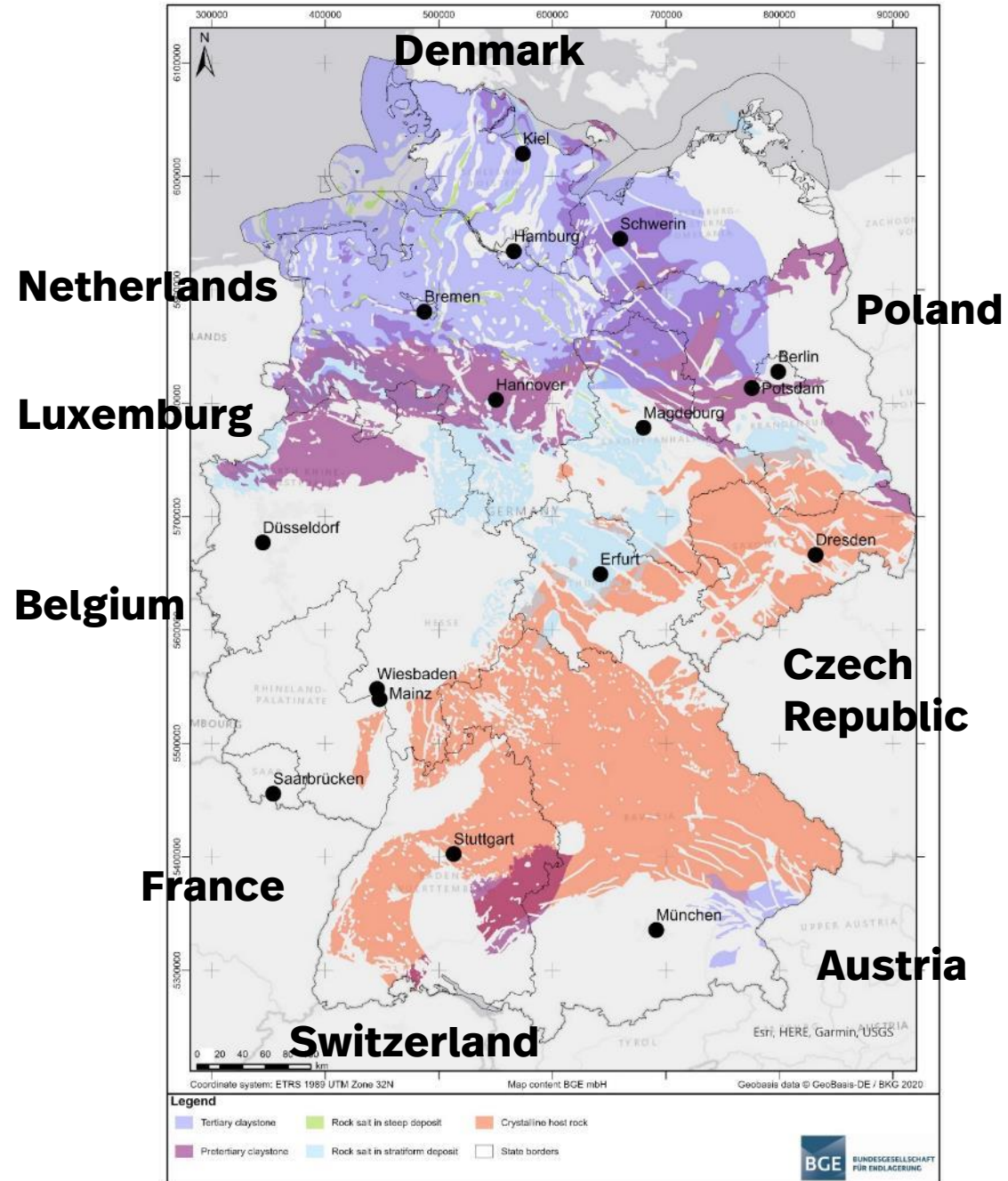
**Political framework:** Democratic structure as well as legal and institutional settings differ

→ Differences regarding (collaborative) decision-making processes

**Socio-cultural framework:** Norms, traditions, meanings and attitudes of social groups in regional or national contexts differ

→ Differences regarding stakeholder involvement practices and attitudes towards nuclear facilities

Sub-areas pursuant to § 13 Site Selection Act (StandAG)



# Success factors and challenges for cross-border public participation

- **Overcome language barriers:** provide translations and offer interpretation; good explanation of the process, roles, tasks and responsibilities
- **Build partnerships with authorities in neighboring states:** not only on national level, but also on regional and local level
- **Early and proactive provision of information to foreign public:** local actors in border regions have high interest to be informed as early as possible
- **Foster mutual understanding:** creation of spaces to get to know each other and generate trust, keep up constant informal exchange

# Recommendations for cross-border participation in site selection procedure

- **Comprehensive participation scoping:** identify interested parties and constellations of actors in neighboring regions, build up knowledge of administrative structures and competences
- **Provide early and comprehensive information** to foreign actors beyond what is legally required
- **Flexibility:** meet different expectations regarding public participation in neighboring countries while ensuring equal participation opportunities for all parties concerned
- **Proactive engagement with or support of coordinating bodies** in neighboring countries and facilitation of public events

## Conclusion

### Social science

- improves public participation, which
- improves safety.



**Thank you!**

**Any Questions?**