

Supplement of Saf. Nucl. Waste Disposal, 1, 193–194, 2021
<https://doi.org/10.5194/sand-1-193-2021-supplement>
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Supplement of

Narratives and images of the future for final disposal

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safeND- Interdisciplinary research symposium on the safety of nuclear disposal practices 2021

Narratives and images of the future for final disposal

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1. INTRODUCTION

1.1 „Public Participation in the Search for a Repository: challenges of an intergenerational, self-questioning and learning procedure“

■ Project partner:

- Öko-Institut e.V., Darmstadt
- team ewen GbR, Darmstadt
- Institute for Technology Assessment and Systems Analysis (ITAS) at KIT, Karlsruhe

■ **Duration:** 2018 – 2020

■ **Funding:** Federal Office for the Safety of Nuclear Waste Management (BASE) – identifier 4717F00001

■ **Publication:** Brohmann, B., Mbah, M., Schütte, S., Ewen, C., Horelt, M.-A., Hocke, P., Enderle, S.: Öffentlichkeitsbeteiligung bei der Endlagersuche: Herausforderungen eines generationenübergreifenden, selbsthinterfragenden und lernenden Verfahrens. Endbericht. Berlin, Bundesamt für die Sicherheit der kerntechnischen Entsorgung (BASE – Forschungsberichte zur Sicherheit der nuklearen Entsorgung, BASE-004/21) (urn:nbn:de:0221-2021051027029), 2021.

1.2 Content of the project

- Concept for public participation, to be implemented in the sense of the Repository Site Selection Act (StandAG 2017) as a participatory, self-questioning and learning procedure until a safe repository site is found
- ITAS WP: Narratives and future images for final disposal
 - Analysis of narratives
 - Evaluation of narratives and design of future images

2. THEORETICAL BACKGROUND

2.1 Narratives are...

- ... interpreted and provided with meanings
- ... unite and condense different narrative strands
- ... contain motifs, contextual conditions
- are temporally structured, related to the past
& open to the future
- ... are not argumentative
- ... aim at authenticity
- ... are shared and taken up

(cf. Geiger 2006, Viehöver 2011, Weber 2017)

2.2 Images of the future - „Sociotechnical futures“

- Perceptions, wishes and visions for aspects not yet experienced in the present.
- Technical developments and social changes are put in relation to each other.
- can be different and also contrary.
- can be used to mobilize design processes.
- are not only texts but can also be pictures or objects.
- need arguments and explanations.

(cf. Lösch et al. 2019, Grunwald 2019)

3. METHODOLOGICAL APPROACH

3.1 From Interview to narrativ

- Qualitative guideline-assisted interviews
- Experts from the fields of: science, civil society, politics, administration, companies
- Experts have "special knowledge"
- With their interpretations they structure the field of action for others
- Content-analytical evaluation of the interviews
- Elaboration of the narratives

3.2 From narrative to images of the future

- Workshop with students and PhD students
- Objective 1: Reflection and further development of narratives
- Objective 2: Design of future images, based on different development paths

4. (selected) EMPIRICAL RESULTS

4.1 Narrative: "Without Fukushima, there would be no StandAG"

- Narrative along a history of conflict
- Catastrophes have shaken confidence in nuclear energy
- The waste problem was handled in a non-transparent and politically inappropriate manner.
- Phase-out is a success of anti-nuclear movements and protests
- Reorientation of waste management policy
- Mistrust of politics and authorities due to these experiences
- Reproach: Politics acts only after disasters or massive political conflicts

4.2 Reflection of the narrative

- The narrative causes many questions
- It presupposes knowledge about the past and contexts
- The past is indirectly excluded by setting a beginning with Fukushima
- Conflict history is complex and difficult to understand

4.3 Interim summary

- The narrative is ambivalent
- But it occurs in discourse
- The history of conflict needs to be explained
- The success of civil society must be acknowledged
- Dissent and protest have helped to review and develop decisions

4.4 **Narrative:** "The thinking in the Saint Florian principle blocks that decisions are oriented to the common interest."

- The loss of the common interest mindset strengthens NIMBY
- Emotional and fear-based arguments are also found in the discourse
- Unequal burden sharing

4.5 **Reflection of the narrative**

- Strong appeal character can lead to putting one's own concerns into perspective
- However, it also has an unempathetic effect
- Appreciation of the affected region
- Those affected are not left alone

4.6 Interim summary (focused on authorities): How to reflect and handle narratives

- The company bears the project as a whole
- Risks must be communicated transparently and comprehensibly
- Emotional arguments must also be taken seriously

4.7 Images of the future

- Different development path (pessimistic, moderate and optimistic)
- Action patterns of collective actors

- Government has no concept for adequate solution of the problems caused by nuclear waste
- Science has to be an independent institution (esp. basic research)
- Radwaste policy without problem-oriented foresight and without long-term strategy and governance
- Societal debate is focused on affected groups in the population
- Site selection process is dominated by protest and riots

5. CONCLUSION

5. Conclusion

- Tension between actors with a history of conflict and "new" actors with little knowledge of the past
- Unequal burden sharing also with regard to intergenerational justice
- Narratives and images of the future can play an important role in communication process
- Sociotechnical futures can illustrate alternative courses of action and decision paths

Thank you !

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