



Federal Office
for the Safety of
Nuclear Waste Management

Socio-Scientific Research at BASE Framework, Current Projects and Prospects

Zoë Felder, Federal Office for the Safety of Nuclear Waste Management (BASE)

24th REFORM Group Meeting, August 2020, Raitenhaslach

Why Doing Research?

„In order to accomplish its duties, the Federal Office for the Safety of Nuclear Waste Management conducts scientific research (...).“ (BASE Act on Establishment §2, 4)

“The purpose of the site selection procedure is to identify in a participatory, science-based, transparent, self-questioning and learning process a site for the disposal of high-level radioactive waste (...).“ (Act on the Search for and Selection of a Site for a Disposal Facility for High-Level Radioactive Waste § 1, 2)

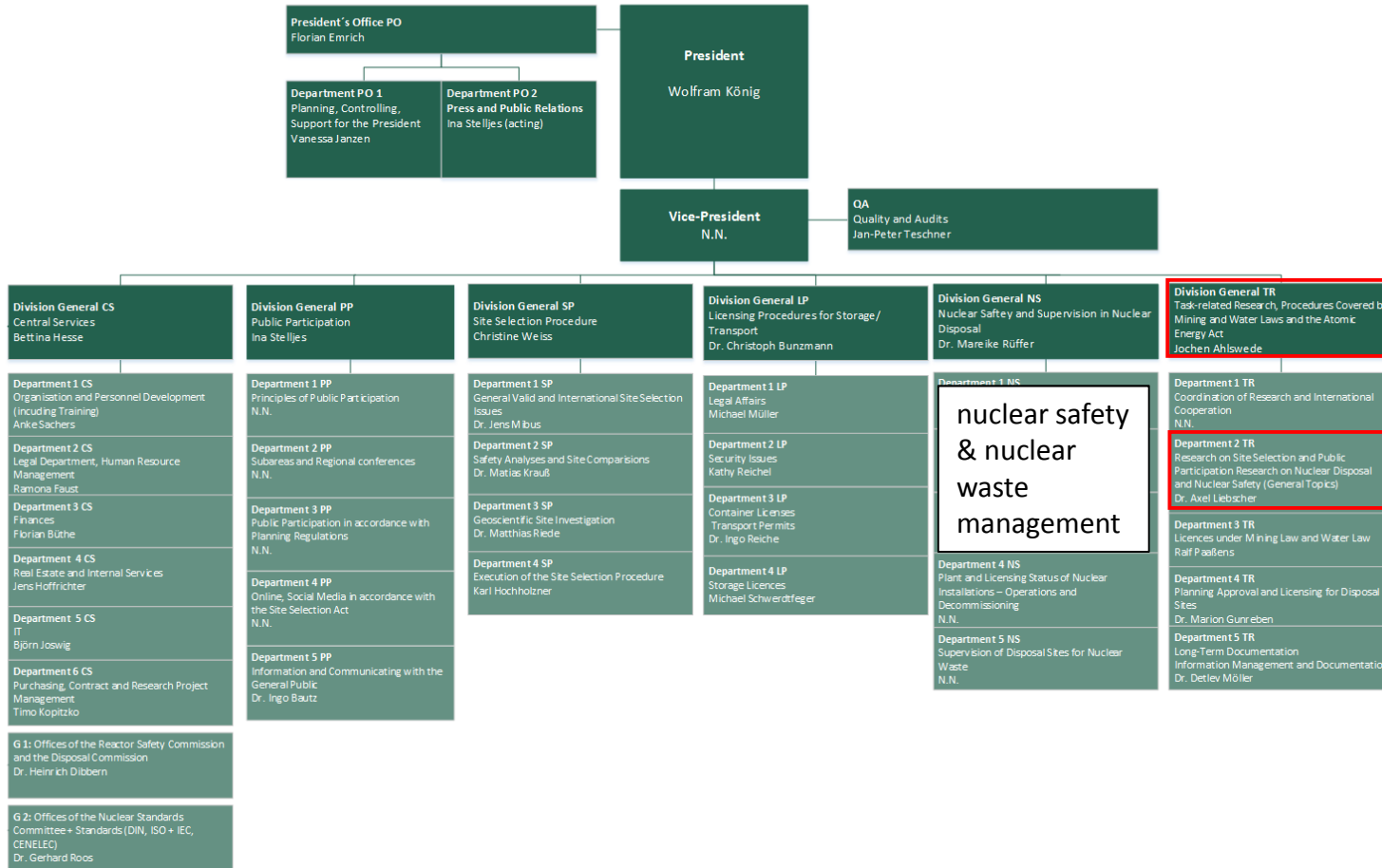
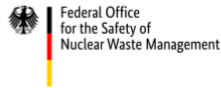
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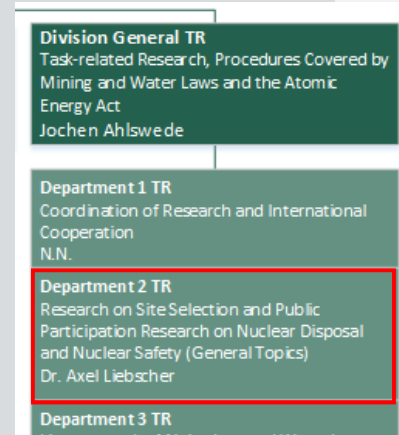


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Task-Related Scientific Research at BASE

- task-related research: ~15 employees
- 2 staff members responsible: research & practice
- resources:
 - BASE awards research projects – own research budget of EUR 3m per year
 - BASE initiates research projects within Departmental Research Plan of BMU/Federal Ministry f.t. Environment
 - in-house – BASE-employees perform research



Identifying Research Topics

- research topics deduced from our statutory tasks
- consulting the scientific and general public
- participating in (inter-) national conferences, meetings, groups...
- interdepartmental coordination



Socio-Scientific & Socio-Technical Issues

As defined in our Research Agenda:

- public participation
- historical science
- dealing with uncertainties and lack of knowledge
- safety management, safety culture, human & organisational parameter



Socio-Scientific Research – Examples

Public participation in the site selection procedure – challenges of a cross-generational, self-questioning, and learning procedure.*

- contractor: Öko-Institut e.V. (with sub-contractors)
- 02/2018-04/2020
- main objectives:
 - instruments and methodologies of public participation, transferability to site selection procedure
 - basic conditions for a self-questioning and learning procedure
 - narratives and future imaginaries in the context of rad. waste storage

(*Öffentlichkeitsbeteiligung bei der Endlagersuche: Herausforderungen eines generationenübergreifenden, selbstinterfragenden und lernenden Verfahrens)

Socio-Scientific Research – Examples

Public participation in the site selection procedure – challenges of a cross-generational, self-questioning, and learning procedure.*

- literature analysis, workshops, interviews
- results (exemplary):
 - necessity to fill the time gap between formal instruments of participation with informal approaches
 - site selection procedure as a *first mover* with regard to „participatory, self-questioning, learning“
 - diversity of narratives as communicative challenge



(*Öffentlichkeitsbeteiligung bei der Endlagersuche: Herausforderungen eines generationenübergreifenden, selbstinterfragenden und lernenden Verfahrens)

Socio-Scientific Research – Examples

Site selection procedure in Germany: knowledge, attitudes, requests – repetitive representative survey.*

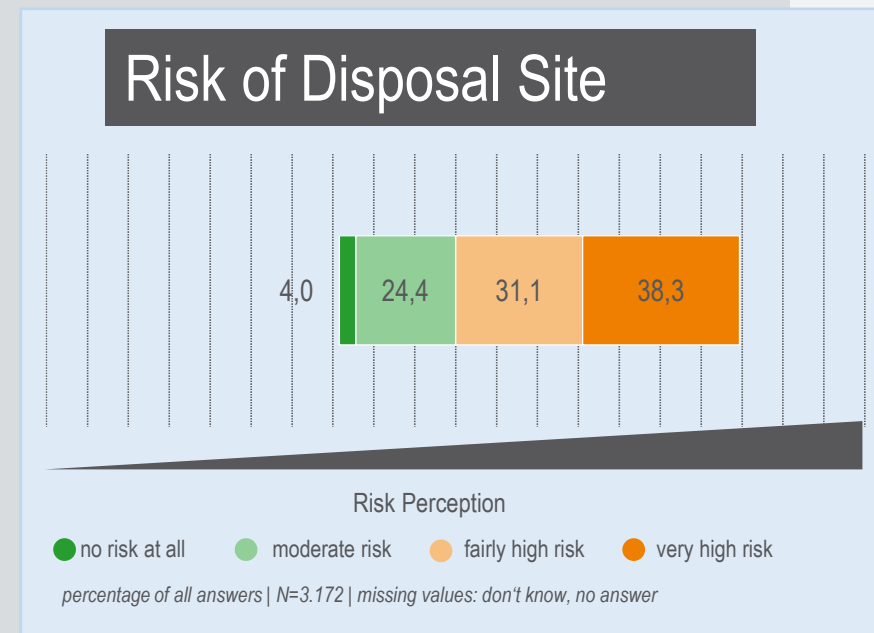
- contractor: aproxima GmbH
- 02/2020-12/2022
- main objectives:
 - survey on knowledge, attitudes, & requests of the German population with regard to rad. waste storage / the selection procedure
 - foundation for public relations and public participation
 - emphasis on young generation (14-29 yrs.)

(*Endlagersuche in Deutschland: Wissen, Einstellungen und Bedarfe – wiederholte repräsentative Erhebung (EWident))

Socio-Scientific Research – Examples

Site selection procedure in Germany: knowledge, attitudes, requests – repetitive representative survey.*

- first survey wave May-July 2020
- sample size n=2.500 telephone interview, n=500 online questionnaire
- second survey wave in autumn 2021 → contrast before/after publication of interim report



(Endlagersuche in Deutschland: Wissen, Einstellungen und Bedarfe – wiederholte repräsentative Erhebung (EWident))

Socio-Scientific Research – Examples

Challenges and success factors for transboundary public participation in the context of the siting procedure.*

- contractor: UfU e.V. (with sub-contractor)
- 07/2020-06/2022
- main objectives:
 - analysis of theory and practical experience
 - identification of challenges and basic conditions, also in selected regions
 - transfer to today's siting procedure



(*Herausforderungen und Erfolgsfaktoren bei grenzüberschreitender Öffentlichkeitsbeteiligung im Standortauswahlverfahren (HERüber))

Socio-Scientific Research – Examples

Citizens' dialogue on nuclear energy (1974-1983) – public action in the conflict on rad. waste management and its significance for today's siting procedure.*

- contractor: Institute for Future Studies and Technology Assessment (IZT) (with sub-contractors)
- 05/2020-04/2023
- main objectives:
 - analysing implementation and impact of the dialogue
 - analysing interdependencies of public and civic stakeholders, their motives and mutual perceptions
 - transfer to today's siting procedure

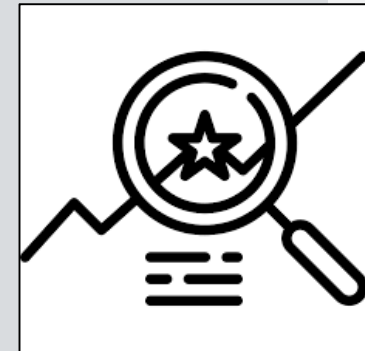


(*Bürgerdialog Kernenergie (1974-1983) – Staatliches Handeln in der Auseinandersetzung um die nukleare Entsorgung und seine Bedeutung für das heutige Standortauswahlverfahren)

Socio-Scientific Research – Examples

Safety culture in due consideration of the duties of a regulatory authority under the Atomic Energy Act.*

- contractor: TÜV NORD, EnSys GmbH & Co. KG
- 07/2020 – 06/2022
- main objectives:
 - analysing existing documents, models, & procedures describing the safety culture of operating companies, including moral concepts, organisational culture etc.
 - analysing the transferability to a regulating & licensing authority under German law
 - validation and mirroring of results with BASE



(*Sicherheitskultur unter besonderer Berücksichtigung der Aufgaben der atomrechtlichen Regulierungsbehörde)

Prospects

- realized necessity → capacity building within BASE (recruiting) and outside: PhD programme, career entry mentoring
- extending our activities to other topics stated in our Research Agenda
- further considerations on how to implement public participation in the field of BASE research
- considerations on how to improve the communication of our research findings to the public



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Thank You!

Zoë Felder

Federal Office for the Safety of Nuclear Waste Management (BASE)

+49-30-184321-6209

zoe.felder@bfe.bund.de