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HOCHRADIOAKTIVER ABFÄLLE IN DEUTSCHLAND

Confidence gap or path dependency? The siting process for radwaste in Germany?

Maria Rosaria Di Nucci, Ana Maria Isidoro Losada and Dörte Themann

Raitenhaslach, August 26, 2020

Background

- Nuclear waste disposal as one of the biggest socio-economic challenges of this century ... and for many centuries to come
- highly complex issue due to the interrelated technical, material, social, economic and political dimensions as well as the real or perceived risks involved
- Distrust in technology, institutions, industry and even experts and decision-making processes are some of the reasons for opposition to disposal strategies
- Site selection policies depend heavily on relationships based on mutual recognition and trust
- Site selection conflicts have often provoked "confidence gaps"

Why is trust so important?

- We consider trust as a key factor for social responses
- Trust is not static; it needs to be built continuously
- Strong asymmetry between building and destroying trust
- Building trust is difficult and protracted, but the loss of trust can happen instantly, e.g.
 - ✓ through an accident, whether endogenous or exogenous to the nuclear waste system (see Slovic 1993)
 - ✓ through a scandal (internal to the system or national context)
- The difficulty of countering trust-destroying actions by purely technical arguments has been acknowledged in the scholarly literature of the last 30 years (Slovic 1993; Laurian 2009; Siegrist 2010)

Framing trust

- For the contextualization of trust and distrust in the German NW governance we take stock of the copious social science research on public trust
- In spite of the growing scholar literature on trust and its functional characteristics, a widely accepted, standard definition of trust is not at hand
- Social sciences make use of a wide variety of definitions, and not always in compatible ways
- A distinction is often made between horizontal trust (of other people) and vertical trust (of institutions) or between generalized and institutional trust.
- The literature considers many different dimensions of trust, e.g. in decision-making, in institutions, in science and technology, in planning, in other members of the community, in public authorities responsible for the decision-making processes, etc.
- Risk research distinguishes between general trust, interpersonal trust, social trust and institutional trust

Focus of the analysis

- We focus on **institutional trust**, which denotes citizens' trust in public and private institutions such as public agencies at different levels of government, Parliament, scientists, organizations of expertise
- We regard trust after Laurian (2009) as being **multidimensional** and **context-dependent**
- Along with Barber, we regard trust as a "set of socially learned and socially confirmed expectations that people have of each other, of the organizations and institutions in which they live, and of the natural and moral social orders that set the fundamental understandings for their lives" (1983, 164-165)
- We consider public trust not only in the executive but also in key specific institutions, nuclear waste regulator and operator, advisory bodies, etc.

- Our contribution
- ✓ analyses the dynamics of trust and distrust in Germany over the evolution of the search for a NW repository site in the last 40 years
- ✓ identifies major turning points
- ✓ explores the main factors that shaped trust/distrust relations over time
- ✓ investigates to what extent different stakeholder groups consider the institutions and procedures in Germany as trustworthy
- ✓ discusses what role past decisions still play today

Our Approach

- We do not concentrate on aspects related to technology and risk, but focus on the historical and institutional dynamics that shaped trust and distrust relations
- We selected key factors considered necessary to build trust in institutions and siting selection procedures (SSP)
- We reviewed recent changes in the institutional setting, including the establishment of a National Civil Society Board (NBG) and the attempt to design more participatory procedures
- 21 stakeholders and experts were asked
 - ✓ to rate some of the identified factors necessary for building trust
 - ✓ whether the measures carried out so far are sufficient to enhance trust in the relevant institutions and procedures and increase public confidence
 - ✓ Additional evidence was derived from document analysis and participatory observation in the works of the German Commission (EndKo-2014–2016), NBG and events of regulator and operator.

Trust in institutions and siting processes and relevant trust factors

Trust in...	Necessary but not sufficient factors		
Institutions	I.	<ul style="list-style-type: none"> • competence (degree of technical expertise) • competence (clear distinction and consistency of roles and responsibilities) • sincerity and credibility (perceived objectivity in terms of lack of biases as perceived by others) • independence (i.e. autonomy, separation of roles) 	Legacy of the Past
Siting Process	II.	<ul style="list-style-type: none"> • fair and consistent communication and participative procedures • openness (extent to which decisions are exposed to public criticism) • transparency (i.e. traceability of decisions and accessibility of information) 	

Source: Di Nucci et al (forthcoming 2021)
 adapted from Renn & Levine (1991) and Rayner (2010)

Feedback of the interviews at a glance

- For 21 interviewees and NBG (NBG 2018, 2019), trust is an essential factor for the *process* of selecting a DGD
- Trust is seen as something that is not just necessary, but unavoidable to gain acceptability for political decisions.
- Especially representatives of Politics and Academia & Research demand a trustworthy process and solutions that this process generates
- Therefore, trust is to be considered the basis for the whole process and, with a view on the past, it needs to be rebuilt
- It is perceived that the process needs an external view and that a self-questioning system must be constantly stimulated from the outside
- Institutional stakeholders felt challenged in creating a fair process and shaping institutions as required by the new Law StandAG
- Building up a “learning” institution that is at the same time a governmental agency, science driven, and adaptive is a challenge for which there is no best practice yet

Are institutions perceived as trustworthy?

- ❖ **Clear roles and responsibilities:** *considered key to help generating trust*
- ❖ **Independence:** *The German regulator and operator are perceived as formally independent (free from economic interests), but given the supervisory role of the Federal Government these institutions are not entirely free from political pressure*
- ❖ **Competence:** *Interviewees perceive institutions as competent and their expertise in technical matters is acknowledged. However, some criticised that institutions in the past dismissed critical or different scientific expertise*
- ❖ **Credibility:** *Acknowledgment of an increased willingness on behalf of the institutional actors to seek ways of acting in a more open, accountable manner. But in spite of the alleged fresh start, a major issue remains how much “personnel continuity” in the institutions is hidden in the previous and new search process despite the restructuring of the companies and creation of new authorities*

Are the procedures perceived as trustworthy?

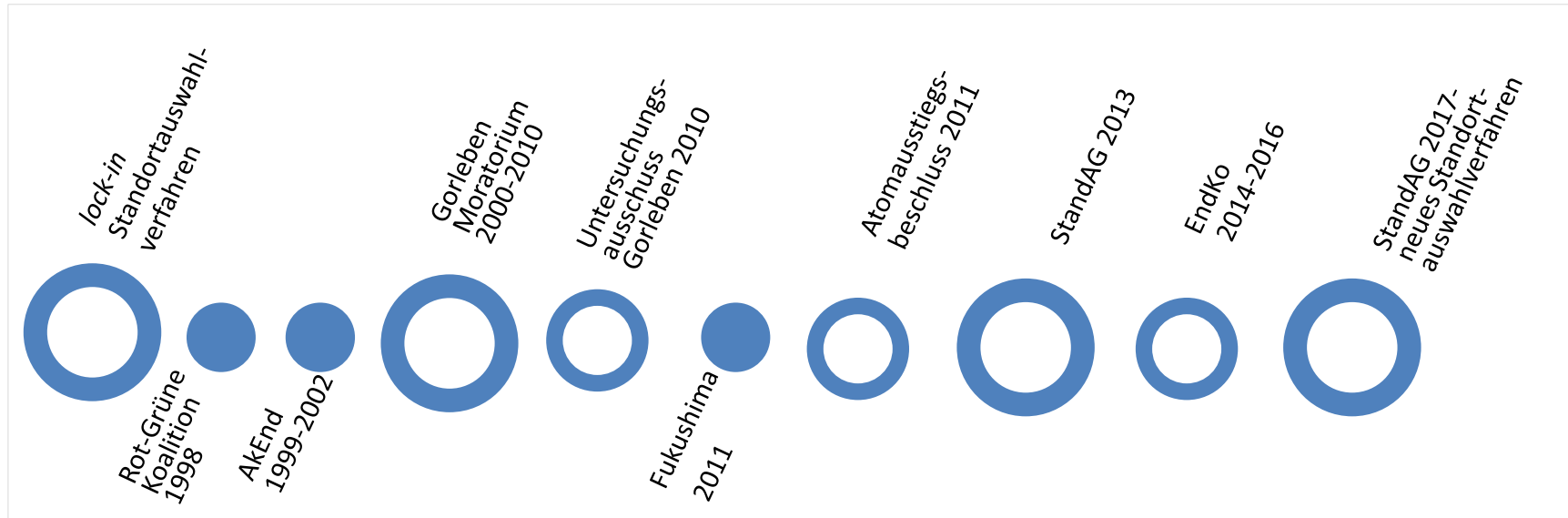
- **Fairness and Consistency of Communication and Participation:**
- *The regulator postulates that “the site selection procedure should be transparent and open.” (BfE 2019, 15). §5 StandAG states that the aim of public participation is to find a solution that is supported by a broad social consensus and can therefore be tolerated by those affected.*
- **Transparency in communicating procedures:** *Interviewees lamented opacity of the procedures especially concerning Gorleben and imbalance in the process and weight between groups of actors, lack of adequate public participation and of opportunities for adaption within the process.*
- **Openness of information and accessibility of data is a prerequisite to build trust.** *In the context of the SSP, the handling of geological data and the current controversies surrounding the Geological Data Act are problematic. The integration of lay expertise or knowledge from civil society actors is also considered key*

History matters: The legacy of the past

- The developments of the last decades show that serious efforts were made by the various sides to reach a basic consensus
- Today's processes, based on a relatively broader socio-political basis could represent a turning point, where trust lost in the past could be rebuilt
- However, this could be a kind of short lived trust that could quickly vanish in the moment in which the regions for the siting will be designated
- For this reason, a first necessary step is the reappraisal of the past and the willingness to learn from the failures made.

Path dependencies in the German RW policy?

- The development paths taken at a given point in time (e.g. DGD) can be abandoned or modified only with difficulty or only under specific conditions



Source: Isidoro Losada

Main sources of distrust, associated with long-lasting conflicts

- Sources of distrust are:
 - ✓ the historical fight between the state and the anti-nuclear movement
 - ✓ the early commitment to DGD solutions
 - ✓ the impasses within the political system when it comes to controversial and far-reaching decisions
 - ✓ the unequal distribution of burdens, risks and benefits associated with the repository which are perceived as unfair
- The conundrum is also connected with
 - ✓ time pressure and the repeatedly declared intention to complete the search process by 2031
 - ✓ the fact that the conditions for the "implementation" of the repository are not openly discussed
 - ✓ Participation is not linked to co-decision

Lessons learned

- The multi-level processes and diverging interests require reformed or even new social institutions and negotiation procedures
- The implementation of public participation in the SSP was (so far) oriented towards participation instruments provided by planning law or formal-institutionalized participation instruments (e.g. hearings, discussion meetings, PR events)
- This - from the perspective of participation theory - offers citizens only limited opportunities for participation in decision making.
- New paths of participation involving the citizens as “co-designers of the procedure” (§ 5 StandAG) need to be taken seriously in the future, if trust should be built.
- Current institutions involved in the NWG are making efforts to deserve greater confidence and to create a context in which mutual understanding can be developed.
- Timid attempts include the BGE Forum and partly the Status Conferences of BASE.
- Little attempts to take into account lessons and concepts from the field of risk communication and to derive lessons from the mistakes made in the past.

Preliminary conclusions

- Without a trust-building process for the siting, development and operation of a risky asset, a short-term attenuation of long-lasting conflicts is unlikely
- The legacy of the past (esp. Gorleben) still plays an inhibiting role
- Initiatives like the ones of the regulator aimed at reaching public support through a PR approach are not sufficient to generate trust in the process
- When communication is performed in a unidirectional way, participation can end up being just window dressing and the whole process will be mistrusted
 - even if the key institutional actors were perceived as competent and credible
 - even if new forms of participation are envisaged
- It is open whether the procedures for the outstanding CoS will enable the participation of affected people and increase the room for direct citizens' involvement
- Against the background of mutual stigmatisation of institutions and opponents, the NBG stands up as an authority that can guarantee transparency in the process, and is perceived as the only government-related institution that enjoys public confidence

Selected Literature

- Barber B. (1983). *The Logic and Limits of Trust*. New Brunswick, NJ: Rutgers University Press.
- Di Nucci, M. R. (2019). "Voluntarism in Siting Nuclear Waste Disposal Facilities: Just a Matter of Trust?" In *Conflicts, Participation and Acceptability in Nuclear Waste Governance*, edited by A. Brunnengräber, and M.R. Di Nucci, 145-174. Wiesbaden: Springer.
- Di Nucci, M. R., Isidoro Losada, A.M., Themann, D. (forthcoming). "Confidence gap or timid trust building? The role of trust in the evolution of the nuclear waste governance in Germany". Submitted to the *Journal of Risk Research* (in peer review)
- Laurian, L. (2009). "Trust in Planning: Theoretical and Practical Considerations for Participatory and Deliberative Planning." *Planning Theory & Practice* 10 (3): 369-391.
- NBG (2018a). *Erster Bericht zum Auswahlverfahren für ein Endlagerstandort*. Berlin
- NBG (2019): *Ein neuer Weg hat sich bewährt: Unserer Begleitung des Standortauswahlverfahrens. Rückblick und Ausblick*. Berlin.
- Petts, J. (2008). "Public engagement to build trust: false hopes?" *Journal of Risk Research* 11 (6): 821-835.
- Rayner, S. (2010). "Trust and the transformation of energy systems." *Energy Policy* 38 (6): 2617–2623.
- Renn, O., and D. Levine. (1991). "Credibility and trust in risk communication." In *Communicating Risks to the Public*, edited by R.E. Kasperson, and P.J.M. Stallen, 175-217. Springer Dordrecht.
- Siegrist, M. (2010). "Trust and Confidence: The Difficulties in Distinguishing the Two Concepts in Research." *Risk Analysis* 30 (7): 1022–1024.
- Slovic, P. (1993). "Perceived risk, trust and democracy." *Risk Analysis* 13 (6): 675-682.

Thank you for your attention!

Gefördert durch:



Bundesministerium
für Wirtschaft
und Energie

aufgrund eines Beschlusses
des Deutschen Bundestages

Gefördert im Niedersächsischen Vorab
der Volkswagenstiftung



VolkswagenStiftung



Niedersächsisches Ministerium
für Wissenschaft und Kultur

Förderkennzeichen 02E11849A-J

Independence

- Independence is a criterion that links competence with credibility as far as institutions, but also experts are concerned.
- Also scientific expertise can generate distrust, in the case experts are seen as part of the system and not as independent.
- The assumption that more independence would automatically mean more credibility and hence trustworthiness, however, does not hold.