

EGU22-1925

<https://doi.org/10.5194/egusphere-egu22-1925>

EGU General Assembly 2022

© Author(s) 2022. This work is distributed under the Creative Commons Attribution 4.0 License.



## Different strategies in attempting nuclear waste disposal – A comparative study based on four countries

Jayjayanti Basumallik<sup>1</sup>, Wolfram Rühhaak<sup>2</sup>, and Miranda Schreurs<sup>3</sup>

<sup>1</sup>Technical University of Munich, Department of Governance, Munich, Germany (j.basumallik@tum.de)

<sup>2</sup>Bundesgesellschaft für Endlagerung, Sicherheitsuntersuchungen, Peine, Germany (wolfram.ruehaak@bge.de)

<sup>3</sup>Technical University of Munich, Department of Governance, Munich, Germany (miranda.schreurs@hfp.tum.de)

Across the world, about thirty countries are generating power from nuclear energy, but adopting different strategies to deal with high-level radioactive waste (HLW) produced during the process. A brief comparative analysis of four countries, namely, Finland, Germany, China, and India, is conducted in order to understand the key geopolitical, technical, and social factors that drive these different strategies. There are significant differences in their preparedness related to planning and implementing a final disposal facility for the HLW in deep geological repositories. The research explores the extent of public awareness and acceptance of the nuclear waste management strategies in these four countries. Of special interest is the scope of public participation in the decision-making process related to repository site-selection, and the safety assurances of the proposed HLW disposal techniques. The analysis finally delves into the subject of protracted timelines of the ongoing HLW management projects and the associated challenges.