**Integration Group for the Safety Case (IGSC) Symposium 2024**  
*MOVING TOWARDS THE CONSTRUCTION OF A SAFE DGR – GETTING REAL*

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| **Abstract Title:** Long-term information preservation and the safety case, a litmus test of the influence of social science on the licencing process?  Swedish Radiation Safety Authority, Sweden  [Carl-Henrik.Pettersson@ssm.se](mailto:Carl-Henrik.Pettersson@ssm.se) | |
| **Abstract (300-500 words):**  Deep geological disposal, intended to isolate and contain radioactive waste hundreds of meters down into the bedrock in order to protect future generations and the environment is the general accepted solution for final disposal. At the same time, this isolation imposes a difficult challenge regarding preserving society’s collective memory of the repository’s characteristics and function. Over the years, major efforts have been conducted to address this challenge, some dating back to the early 1980s and 1990s. In the 2010s, the OECD/NEA project “Preservation of Records, Knowledge and Memory (RK&M) across Generations” was one of the major efforts directed at this challenge. The project emphasized, inter alia, the need to […] address concerns and answer requests from the public, especially local communities, (NEA, 2011).  From this respect it is of interest to note to what extent this challenge of long-term RK&M across generations has been addressed in the licence application for spent nuclear fuel repositories in various countries, how stakeholders have responded to these initiatives, and which lessons can be learned. In this contribution, particular attention will be directed at the experiences gained in Sweden, one of the countries most advanced in developing a geological disposal facility.  Regarding information and knowledge management the regulatory framework in Sweden and many other countries is mainly focused on the time period until closure of the disposal facility (NEA, forthcoming). Notions of long-term preservations, if present, are broad and lack detail with regard to what information to preserve. This lack of regulations regarding long term RK&M preservation can explain why SKB’s voluminous license application only briefly mentioned the need for long-term RK&M preservation. And in the top document of the licence application, the issue of RK&M preservation is briefly described in a short paragraph that states that “The question of the long-term knowledge preservation should be resolved no later than in connection with the closure of the repository in approx. 70 years. Then society can choose what type of information it wants to preserve, and how” (SKB, 2011).  In the national consultation, few stakeholders commented on this. Those who did were the concerned hosting municipality, environmental organisations, The Swedish National Council for Nuclear Waste and the Swedish National Archive. The comments were critical and emphasized that there is a lack of clarity, both regarding a lack of long-term information regulations and how SKB intends to preserve and manage information about the final repository. The National Archives commented that SKB should have already started planning for the handling of this information, which should then be updated and revised continuously. The National Archive points out that documentation efforts should not be postponed until the actual closure of the final repository (SSM2018:03). Due to these comments, the licence applicant added additional information to the licence application.  The safety case is crucial for the decision making process and equally important in building trust in the stakeholder community. And as the history shows in Sweden, this trust can’t be gained with treating the disposal system as entirely a technological challenge that can be solved with research and development. Such a technocratic approach needs to be broadened into the fields of social science and the humanities (Kaiserfeld and Kaijser, 2020). RK&M preservation is such an example where broad multidisciplinary measures needs to be taken to create a robust RK&M preservation system. Measures that needs to be reflected in the safety case in order to create trust in the decision-making process. | |