

## **DISPOSAL OF RADIOACTIVE WASTE - A CHALLENGE FOR GEOLOGISTS**

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In addition to the classic topics of geological investigations such as basic research, mapping and exploration the impact of environmental aspects becomes more and more important for the work of geologists worldwide. Particularly the final disposal of radioactive waste sets extraordinary demands on the geoscientific community. Various fields of activities of geologists are involved in international disposal projects, i.e. the determination and characterisation of host rocks and screening of potential regions, the site selection, site exploration, and site characterisation, performance assessment with long term prediction including the evaluation of natural barriers, and the geoscientific survey during the construction and the operation of the repository. As it is possible to describe completely the long-term evolution of the repository and its environment, geologists are requested to introduce their knowledge and extensive experiences in understanding natural processes and to present geological models (geo-mechanical, hydrogeological, geochemical) within a scenario analysis taking into account natural analoga. To obtain sufficient results for the assessment of geological processes it is essential to exchange and to discuss international experiences in a broad community. The long-term safety of the disposal of radioactive waste requires the consideration of ethic aspects. As international repository projects are often depending on economical and political factors geologists are also morally responsible for their results and have to act independently. All geoscientific investigations have to provide sustainable results and the priority must lie on the security of future generations.