



Time to change the geoscientific perspective!?

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Abstract. The Repository Site Selection Act (StandAG) explicitly emphasises that targeting the disposal of high-level radioactive waste is a so-called learning process. For example, progress in scientific knowledge, in the methodological approach or in new data should be accounted for. We believe that now is a good time to reflect on what we have learned so far and to put the methodological approach to the test. Therefore, we need to question the perspective of the problem: is the bottom-up strategy (data-based), which reduces the remaining search area more and more, objectively feasible enough, or is there a complementary methodological approach? We are of the opinion that the procedure and the available data should be combined with geoscientific knowledge in a top-down (knowledge-based) manner to support the identification of siting regions.

The current bottom-up strategy of continually narrowing down the areas can be purposeful, but it postpones a fundamental problem to a later point in time: how do we compare host rock types? So far, this question has only been addressed qualitatively (BGR, 2007). If this approach were to be developed intellectually and quantitatively, then the following fundamental question could be addressed: does one type of host rock in Germany generally always perform better or worse than another?

If these questions could be answered on the basis of data and knowledge and if a clear result were to emerge, then numerous sub-areas could possibly be excluded at this stage. In order to pursue such a complementary approach, the following points need to be examined:

- quantitative ranking of properties for different host rock types is required for assessments;
- geoscientific knowledge to be used, not only pure data, but also basic findings and expert knowledge;
- synthetic, idealised sites must be defined with the best possible parameters according to the state of science.

We propose this workshop based on the questions outlined above and invite all experts who have dealt with the search for a repository site from a geoscientific perspective. The aim of the workshop is to start the exchange of previous experiences and what has been learned, to discuss alternative or complementary approaches scientifically, and thus to further develop the investigation of the remaining sub-areas.

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