1. Introduction

The representative preliminary safety analyses aim to assess the extent to which the safe containment of the radioactive waste can be expected (Section 27 StandAG). The analysis of the disposal system will be based on elaborating its potential future evolutions (Fig. 1, § 3 EndlSiAnfV). This requires large amounts of data concerning different components of the disposal system to be managed, for example the compilation of physical, geoscientific and technical parameters. The compilation of these data, linked to features, events and processes (FEP) will generate site specific potential evolutions (scenarios) of the disposal system. A database solution aims to not only provide the data, but also the framework needed for the analyses.

2. Challenges

- Large area and number of subareas will generate a large number of investigation areas and hence analyses that have to be performed.
- Scenario development in the past has been performed for generic disposal sites or to compare a small number of potential sites (Beuth et al. 2012, Mayer et al. 2019), but not yet for multiple different disposal concepts and a large number of potential sites at the same time.
- Innovation is required to reduce workload while still ensuring fair representation for each investigation area.

3. Workflow and Database Model

- The database is intended to handle both parameter documentation, FEP-catalogue and scenario development, ideally generating well structured output of parameterised scenarios for the modelling team.
- A prototype of the database is currently developed using MS Access, final implementation utilizing MS SQL Server.
- Publication is intended as web-interface as well as a printed report for long-term archival storage.

Proposed workflow (Fig. 2):

- Develop generic disposal concept and generic scenario development for each possible disposal system
- Document parametrisation of disposal system for each investigation area
- Screen generic concept and scenario development, then assign local information to generic concept for each investigation area

![Diagram](image-url)