



EUROPEAN
COMMISSION

Community Research



*International Technical Conference on
Practical Aspects of Deep Radioactive Waste Disposal*

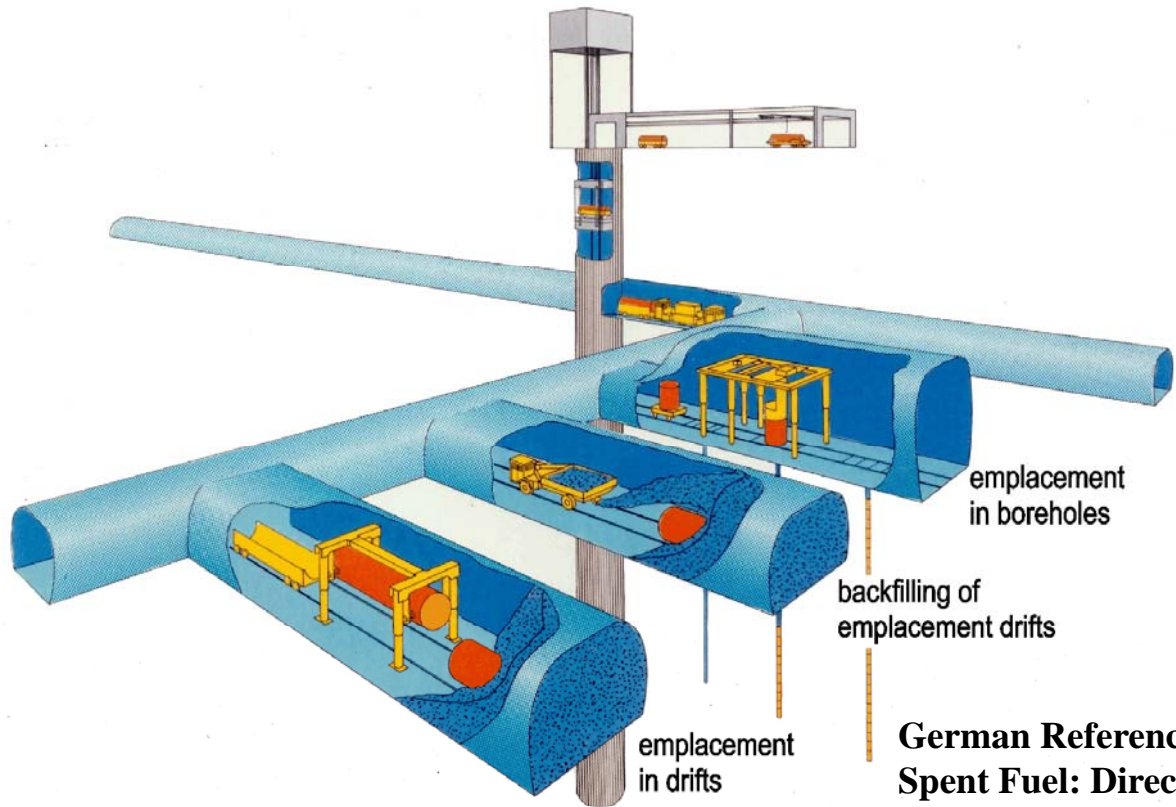
Student Session

**WASTE CANISTER TRANSFER AND EMPLACEMENT
TECHNOLOGY FOR THE HORIZONTAL AND VERTICAL
DISPOSAL CONCEPT**

Wilhelm Bollingerfehr (DBE TECHNOLOGY GmbH)



German Reference Concept



German Reference Concept for HLW and Spent Fuel: Direct Disposal in Rock Salt

- Deep geological disposal (depth: 870 m)
- Emplacement of HLW canisters in boreholes
- Emplacement of spent fuel casks in drifts
- Backfill material: crushed salt

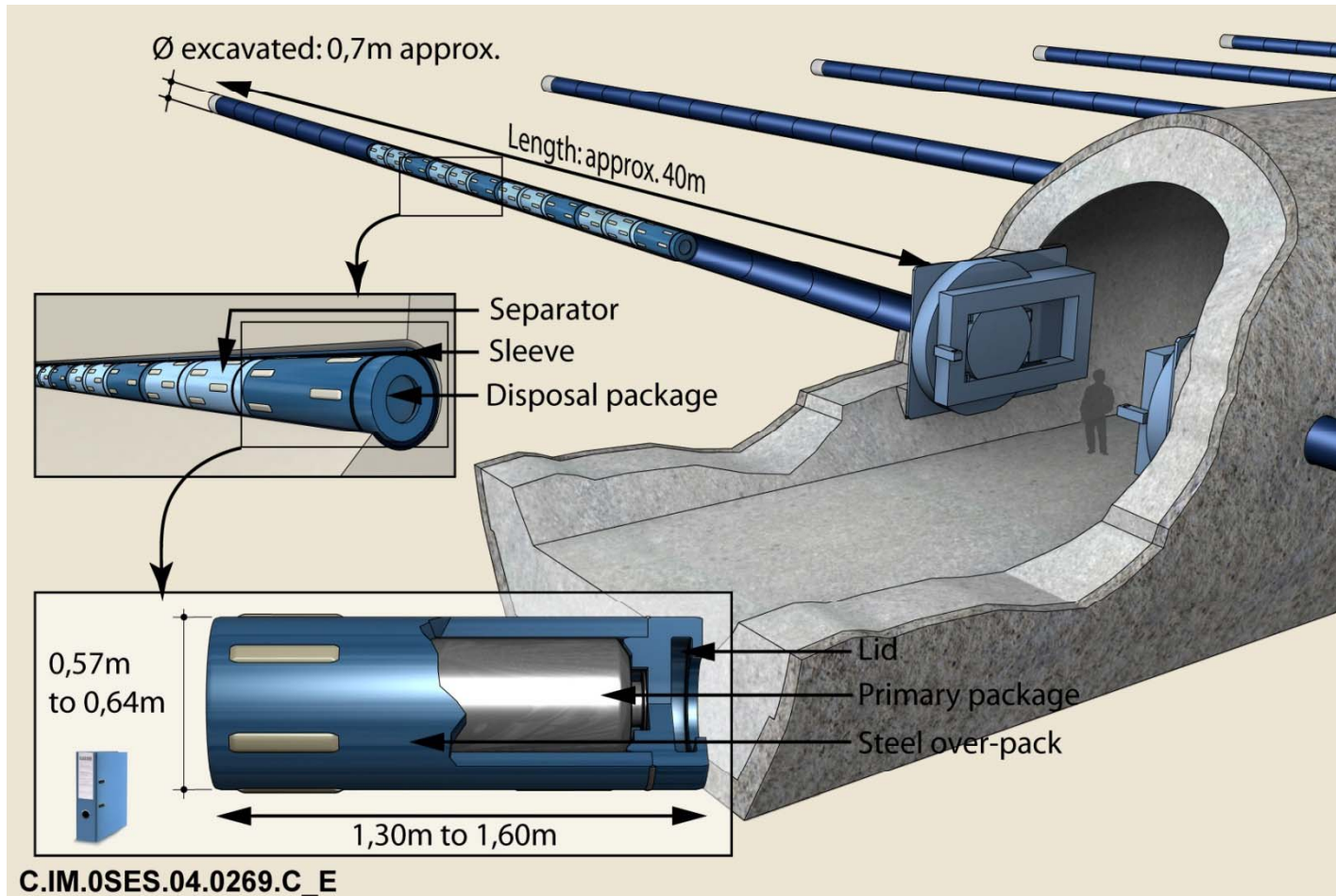
Photos of Test Facility



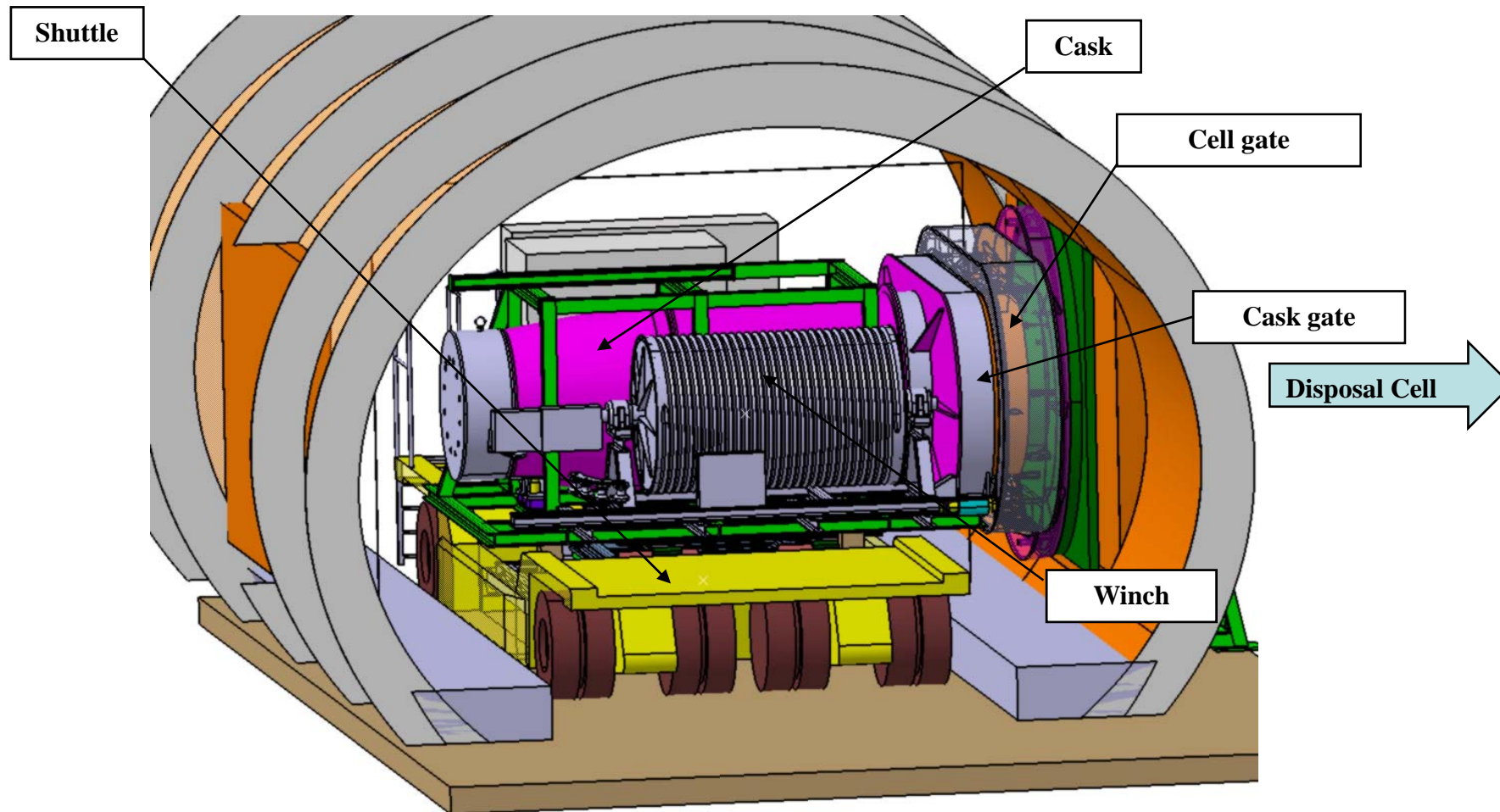
Transport cart, mining locomotive and emplacement device

French Reference Disposal concept for C type waste canister

(Dossier 2005)



Full Scale Demonstrator



Required skills & Questions to the students

- **Development of Transfer and Emplacement systems requires:**
 - Understanding of the principle layout of a repository in different host rocks
 - Understanding of the main transport and emplacement processes
 - Know-how in designing deep geological repositories and in particular designing the appropriate transport and emplacement systems
- **Expertise in the following disciplines is necessary :**
 - Mining Engineering
 - Mechanical, Electronic, Nuclear and Civil Engineering
 - Geosciences (Geotechniques, Geophysics)
 - Operational Safety
- **What are you interested in?**
- **What will be your future expertise ?**