

This report is an excellent summary of nuclear energy pros and cons. My feedback would be towards Ch4.5 Disposal of high-level waste. DMT is deeply involved in the investigation and engineering of nuclear waste deposits (mainly salt and clay).

More countries increasingly realise that storage should be long-term, but the formerly requested eternal safe storage demand is increasingly replaced by reasoning such as storage should provide long-term safety, but also by the understanding that – given the recent increase and improvement of knowledge in this field – and expectation that more nuclear waste can be increasingly recycled in the near future, which is stated in the report. This means that nuclear waste should be recovered and recycled as a first option, once the required knowledge is available, which is expected to be rather sooner than later. We expect nuclear waste to be safely recovered. However, there are challenges because old storage facilities are difficult to handle as they were deposited in the 70s and 80s when know-how in this field was limited. So the bottom line of making nuclear waste deposits recoverable is the key, and this requires the right engineering of these deposits. Once the recycling issues are solved (and we seem to have made great progress in this field), nuclear energy is likely to resume a larger position in the energy mix.

Ongoing innovation projects in the EurAtom (e.g. the EURAD project:

<https://cordis.europa.eu/project/id/847593>) and H2020 programs (e.g. the PREDIS project:

<https://predis-h2020.eu/>) are among the current spearheads of European initiatives for investigating and establishing industry best practices for nuclear waste storage engineering. Furthermore, they are representative of European acceptance because they are led by state-mandated European organisations, not just selected industry partners. A reference to these projects in the report could be helpful.

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