

Evaluation of how the LUCOEX results can be utilized by less-advanced programs

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Objective

Investigate if and in which way results from the LUCOEX project can be utilized by countries in EU with less-advanced radioactive waste management programs, with respect to high-level waste and spent fuel.



Method

Information processing and interviews.
International contacts have been made through e-mail to gather information about radioactive waste management in European countries.



Background

- High-level waste and spent fuel
- Geological disposal
- LUCOEX project
- Two concepts in hard crystalline rock and two concepts in clay



Results



Suitable host rock for deep geological repository



| | Geological inventory for deep |
|-----------------|-------------------------------|
| Country | geological repository |
| Belgium | Clay |
| Bulgaria | Clay, Crystalline rock |
| Croatia | |
| Denmark | |
| Czech Republic | Crystalline rock |
| Finland | Crystalline rock |
| France | Clay |
| Germany | Clay, Crystalline rock, Salt |
| Hungary | Clay |
| Italy | |
| Lithuania | Clay, Crystalline rock |
| The Netherlands | Clay, Salt |
| Poland | Clay, Crystalline rock, Salt |
| Romania | Clay, Crystalline rock, Salt |
| Slovakia | Clay, Crystalline rock |
| Slovenia | Clay, Crystalline rock |
| Spain | Clay, Crystalline rock |
| Sweden | Crystalline rock |
| Switzerland | Clay, Crystalline rock |
| United Kingdom | Clay, Crystalline rock, Salt |

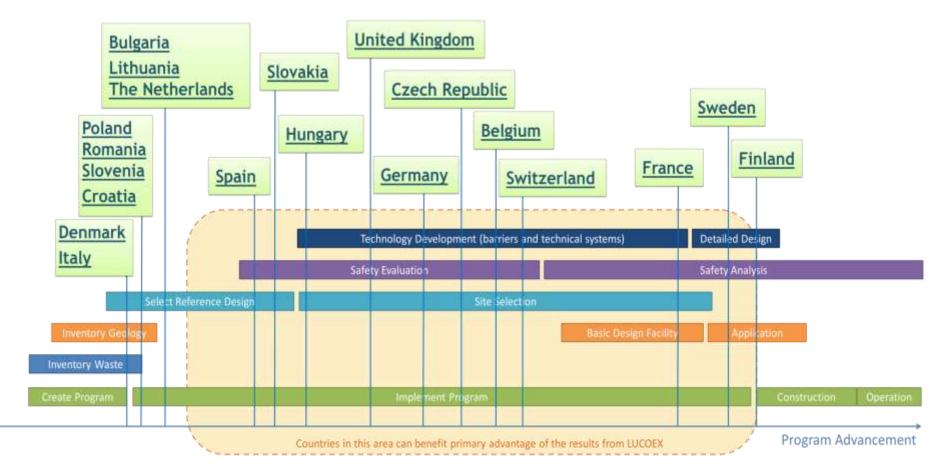


Countries with planned start year for operation

| | Year for start of operation of deep geological |
|-----------------|--|
| Country | repository |
| Belgium | |
| Bulgaria | |
| Croatia | |
| Denmark | |
| Czech Republic | 2065 |
| Finland | 2022 |
| France | 2025 |
| Germany | 2035 |
| Hungary | 2064 |
| Italy | |
| Lithuania | |
| The Netherlands | |
| Poland | |
| Romania | 2055 |
| Slovakia | |
| Slovenia | 2065 |
| Spain | |
| Sweden | 2029 |
| Switzerland | 2050 |
| United Kingdom | |



How far the member states have come in their repository work





Conclusion



All of the countries have made a nuclear waste and spent fuel inventory.



- Belgium, Bulgaria, France, Germany, Hungary, Lithuania, the Netherlands, Poland, Romania, Slovakia, Slovenia, Spain, Switzerland and United Kingdom consider <u>clay</u> as an option for host rock.
- Bulgaria, Czech Republic, Finland, Germany, Lithuania, Poland, Romania, Slovakia, Slovenia, Spain, Switzerland and United Kingdom consider <u>crystalline rock</u> as an option for host rock.



The countries that have made significant progress in their radioactive waste management programs, and therefore are in a position where results from the LUCOEX project can be utilized in a perspicuous future are Spain, Slovakia, Hungary, United Kingdom, Germany, Czech Republic and Belgium.



Bulgaria, Lithuania, Poland, Romania, the Netherlands, Slovenia and Croatia can utilize the results from the LUCOEX project to get information of one concept to aim for in the future.



Questions?



Thank you!

