

nwmo

NUCLEAR WASTE
MANAGEMENT
ORGANIZATION

SOCIÉTÉ DE GESTION
DES DÉCHETS
NUCLÉAIRES

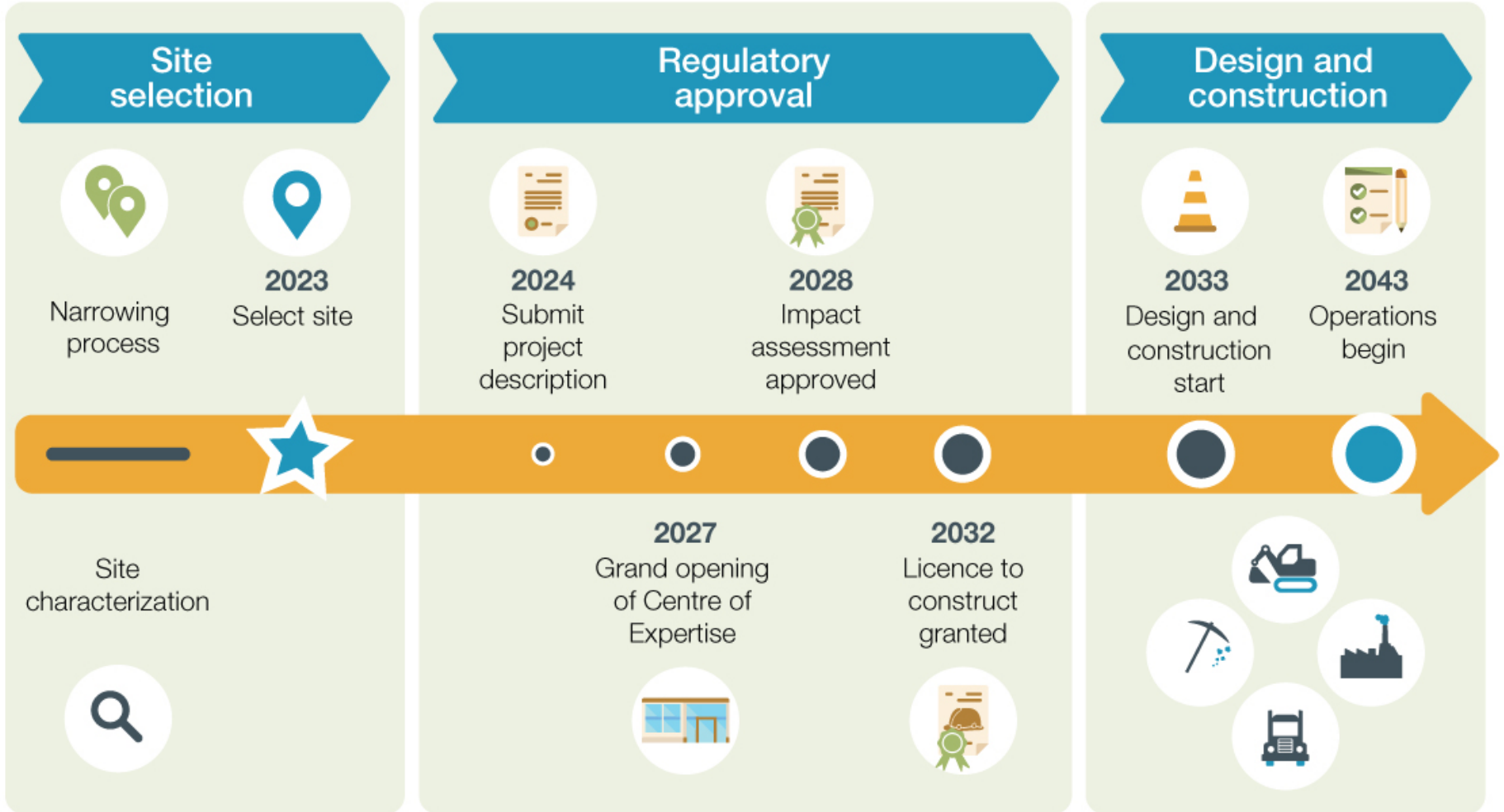


Site Selection Update

Presented to: Durham Nuclear Health Committee
April 23, 2021

Presented by: Bob Watts, VP Indigenous Relations & Strategic Programs
Derek Wilson, VP Construction & Projects

Project Timelines



MARCH 2021

Path to Site Selection



Willingness

- The NWMO is seeking **Informed** and **Willing** hosts
- The NWMO requires a **compelling demonstration** of willingness from the local potential host communities
- It is up to the potential host communities to determine how they wish to decide if they are willing to host the project
- The NWMO and potential host communities work with surrounding communities to build awareness and support for the project
- Canada's plan will only proceed in an area with informed and willing hosts, where the municipality, First Nation and Métis communities, and others in the area are working together to implement it

Site Selection Update

- In Ignace area, four boreholes drilled to date, mobilization to complete downhole testing of borehole 4, followed by drilling of boreholes 5 & 6 began April 1, 2021
- In South Bruce area, mobilization for site establishment for borehole 1 commenced April 1, 2021.
- Borehole drilling will begin in both regions in the coming weeks.
- Exploring the potential of partnerships
- Ongoing local and regional engagement to build awareness of the project and safety
- Engagement with Indigenous communities
- Planning for socio-economic studies



Guided by Community Principles

Seven values and principles identified with the involvement of community members



(Note: This is an example of principles developed with community members in Ignace. Community principles also identified in South Bruce)



Planned Community Studies

- Address community questions and aspirations
- Basis for the Impact Assessment that will follow site selection
- Conducted in collaboration with the community

Further detailed studies	
Housing	Whether sufficient short-term or long-term housing will be available, and what increased demand may mean for housing prices
Infrastructure Improvements	Examining potential effects of having additional people and traffic, including required improvements to roads and other infrastructure
Economics	Identifying local and regional economic development opportunities for existing businesses
Environmental	Ensuring the protection of local rivers, lakes and groundwater, and that development of the site will not harm sensitive ecosystems or endangered species
Health	Examining the regional health system to prepare for the new families the project will bring into the area
Well-being	Examining the effects on education, and other social programs in the region to meet the needs of families

Council of Elders & Youth

Independent advisory body made up of Indigenous Elders to advise on interweaving Indigenous Knowledge and establishing meaningful relationships with Indigenous communities

- Strong Indigenous influence within NWMO
- Importance of relationship
- Importance of ceremony
- Staff cultural awareness training
- Indigenous Knowledge Policy
- NWMO committing to contribute to Reconciliation



NWMO Reconciliation Statement

In the context of reconciliation, the Nuclear Waste Management Organization (NWMO) recognizes historical wrongs in Canada's past and the need to create a better future by addressing the challenges of today. The NWMO Council of Elders and Youth speaks of this journey as a new era for humanity – a time of reconciliation with First Nation, Métis and Inuit peoples.

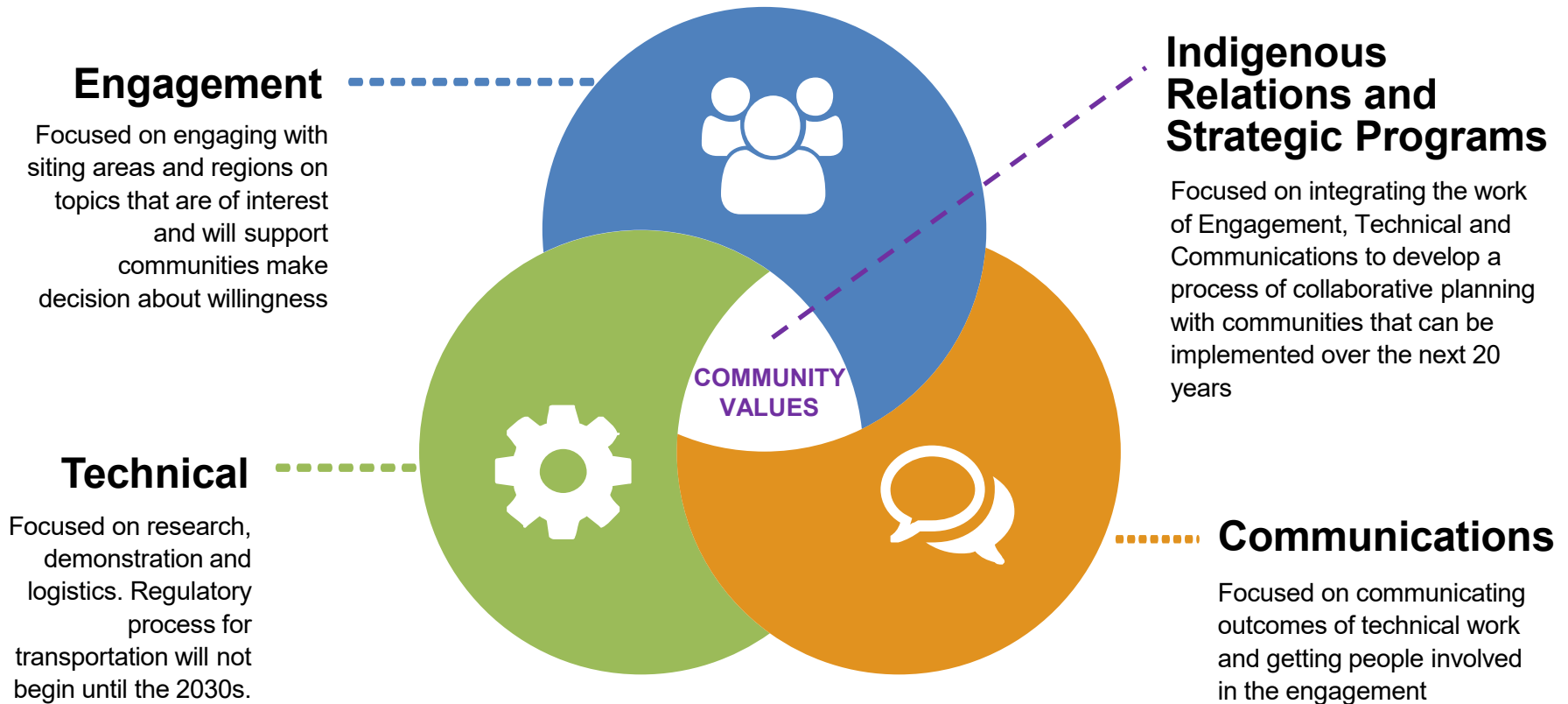
The NWMO is committed to contribute to reconciliation in all its work by co-creating a shared future built on rights, equity and well-being. In addition, the NWMO will establish a Reconciliation Policy with an implementation strategy that will be measured annually and publicly reported to contribute to the Truth and Reconciliation Commission's calls to action.



Water Focus



Transportation at the NWMO



Site Assessments - BH Drilling and Testing



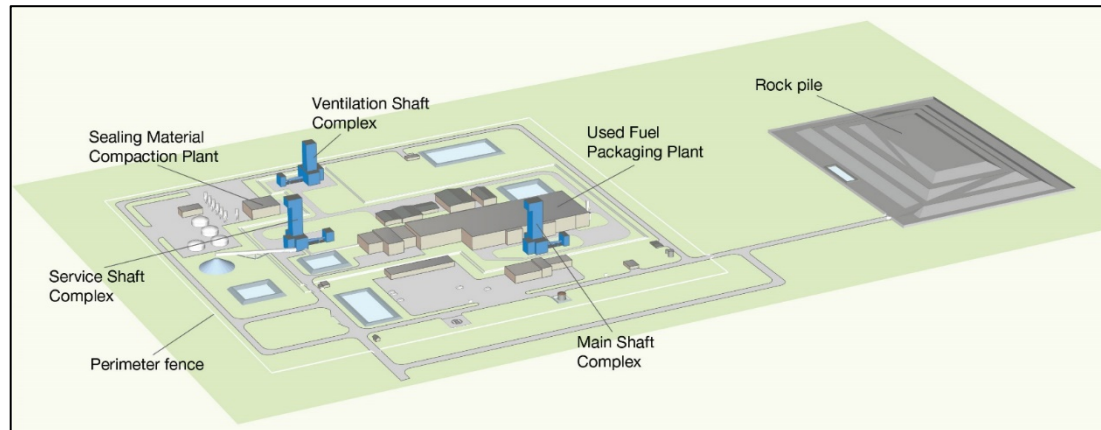
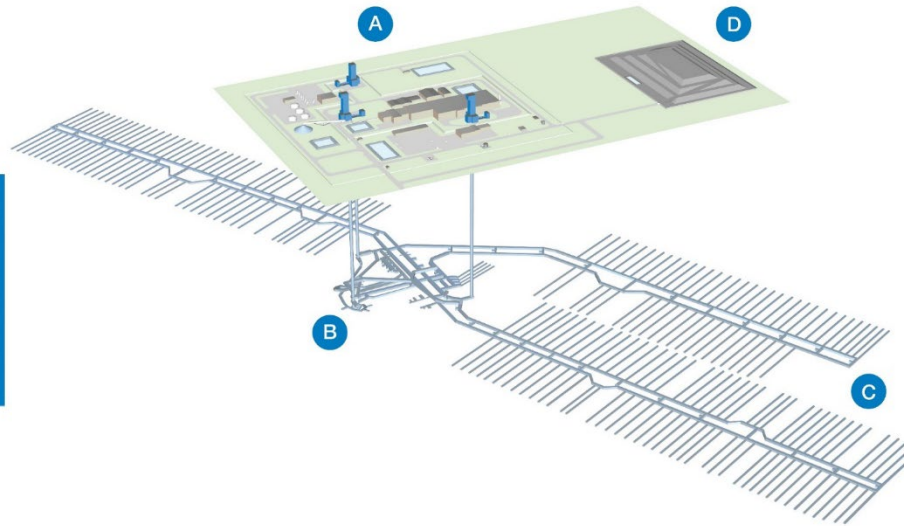
Drilling, Sampling and Down-hole Testing



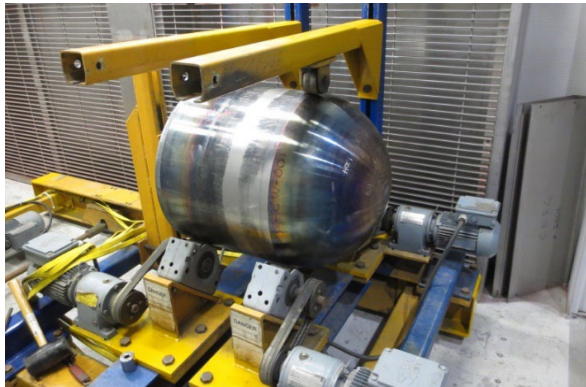
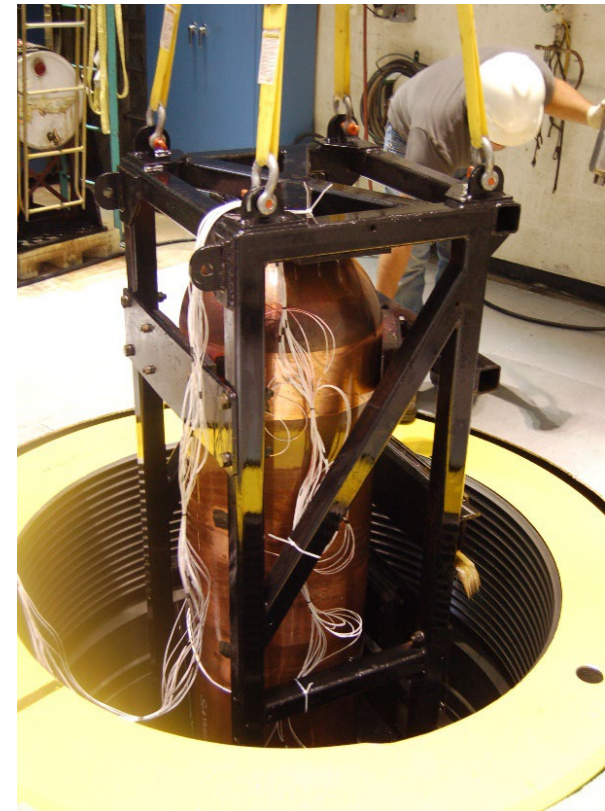
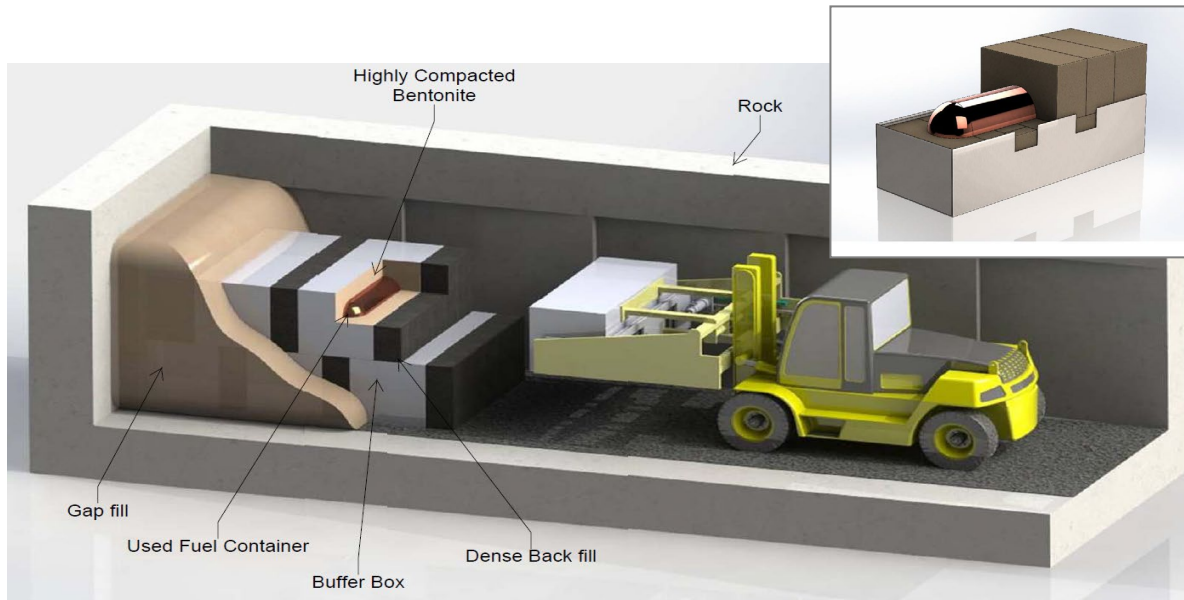
Repository Engineering & Facility Design

LEGEND

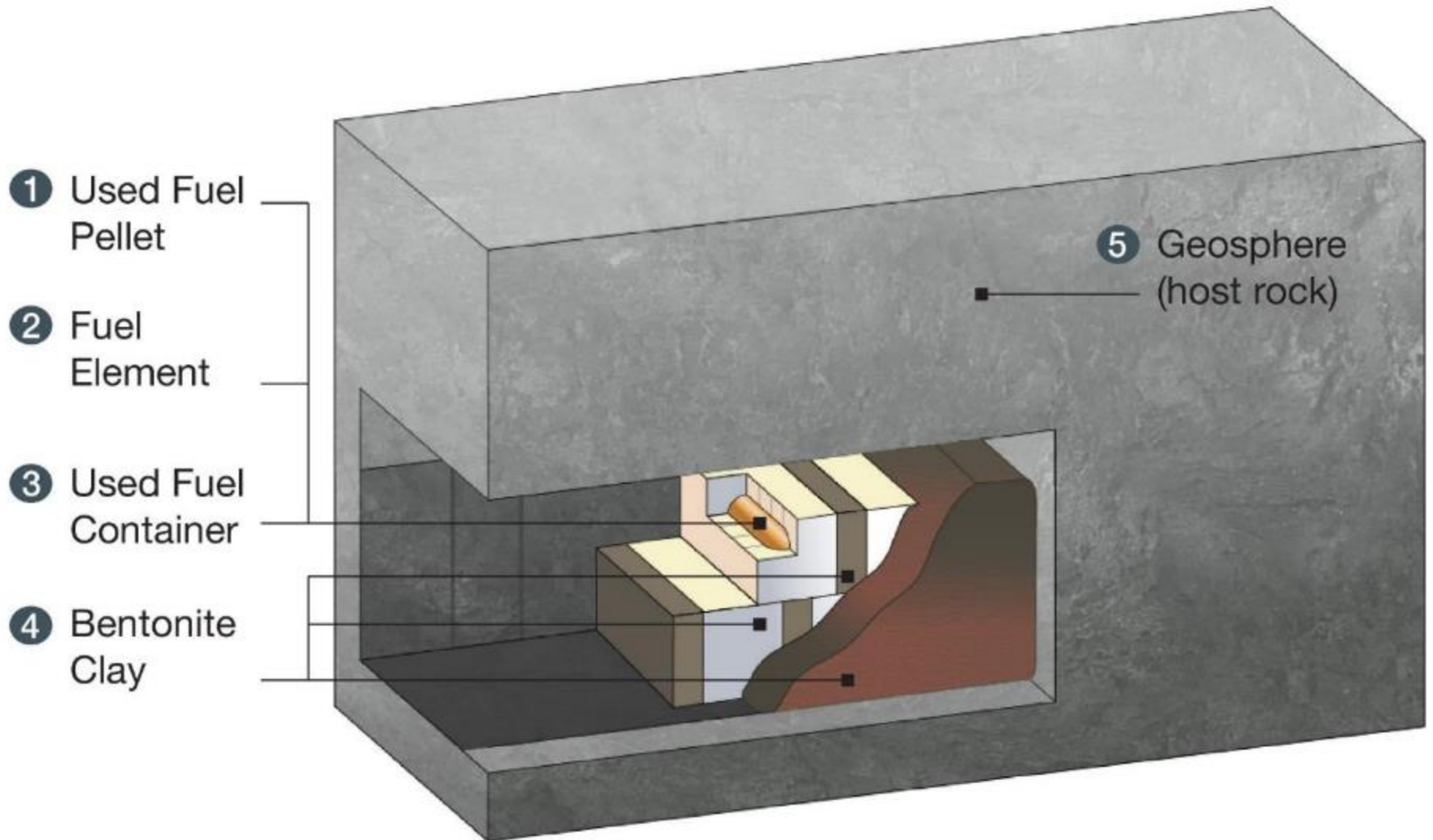
- A. Surface facilities
- B. Services area
- C. Placement rooms
- D. Rock pile



Proof Testing & Technology Demonstration



Multiple Barriers to Contain and Isolate



Technical Evaluation Criteria

Six safety functions

1. Safe containment and isolation of used nuclear fuel
2. Long-term resilience to geological processes and climate change
3. Isolation of used nuclear fuel from future human activities
4. Amenable to site characterization and data interpretation activities
5. Safe construction, operation and closure of the repository
6. Safe, secure transportation routes



National & International Collaboration

International Organizations



Canadian Universities



National Labs



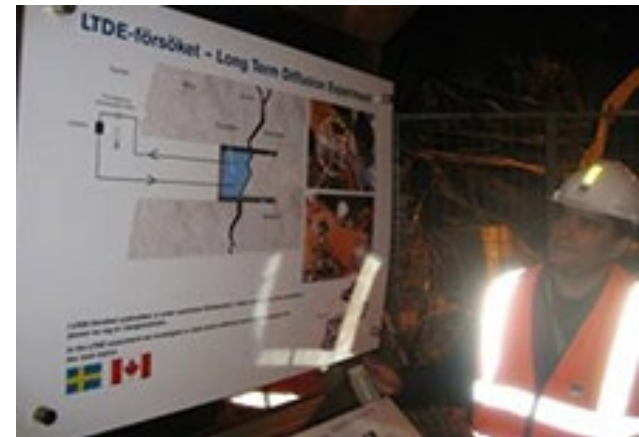
International Co-operation

Signed co-operation agreements:

- Sweden
- United Kingdom
- France
- Switzerland
- Japan
- South Korea
- Taiwan
- Belgium

Active in international organizations:

- Nuclear Energy Agency (NEA) of OECD
- International Atomic Energy Agency (IAEA)
- International Association for Environmentally Safe Disposal of Radioactive Materials (EDRAM)



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Nuclear Waste Management Organization