

»» Who we are

Guided by science.
Grounded in knowledge.
Committed to partnership.

Presented by:
Brendan McClughan

nwmo

NUCLEAR WASTE
MANAGEMENT
ORGANIZATION

SOCIÉTÉ DE GESTION
DES DÉCHETS
NUCLÉAIRES

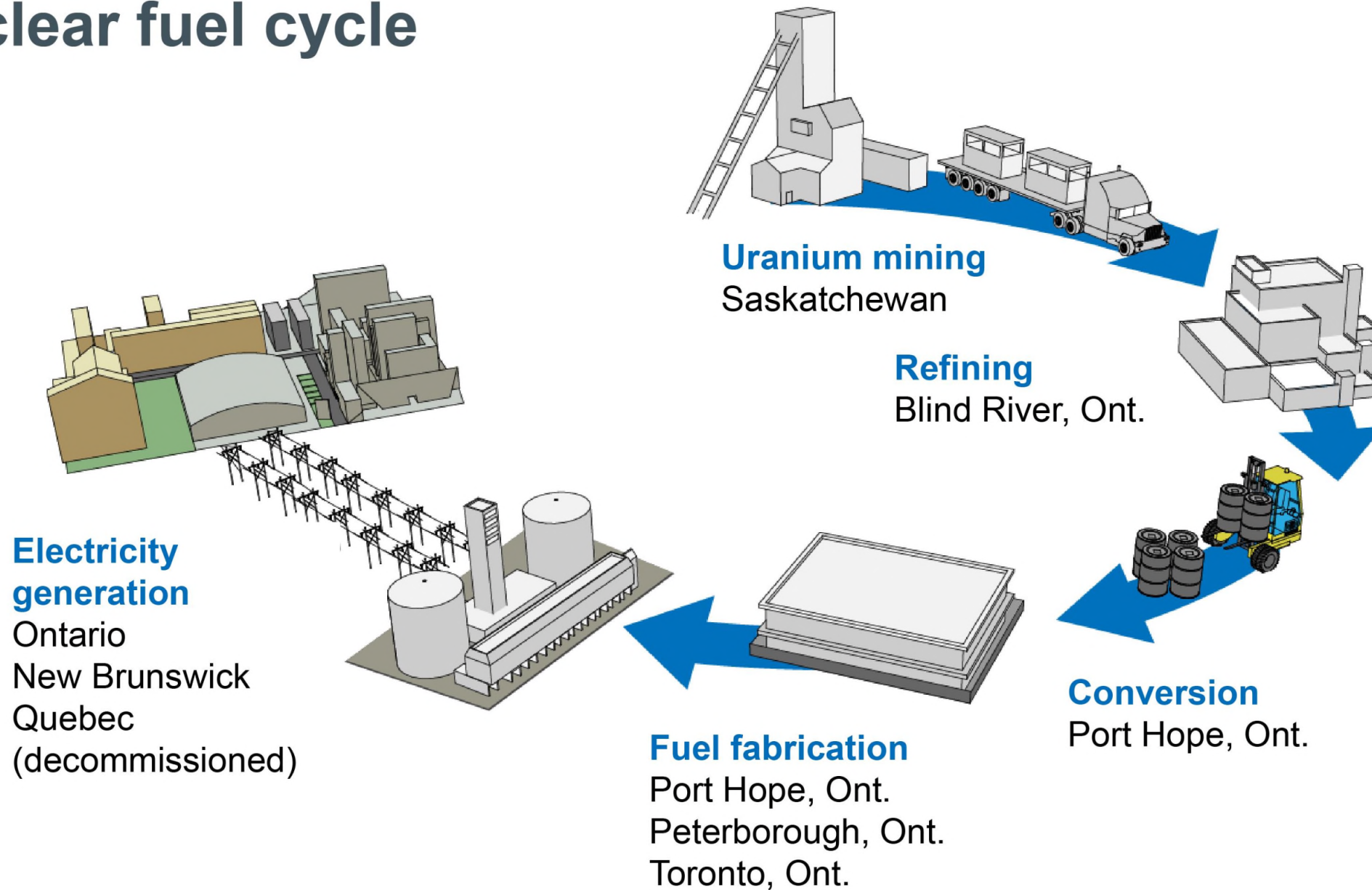
This material is distributed by Brendan McClughan on behalf of the Nuclear Waste Management Organization. Additional information is available at the Department of Justice, Washington, DC.

We are the Nuclear Waste Management Organization.



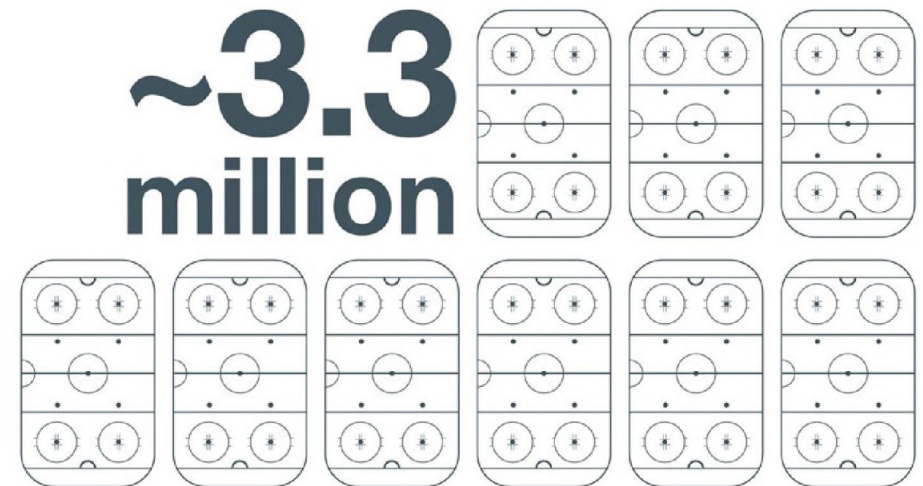
**Nuclear energy
powers our
homes,
businesses
and cities.**

Nuclear fuel cycle



What is Used Nuclear Fuel?

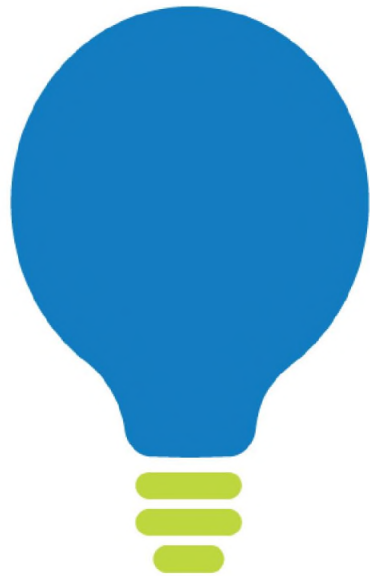
- Used nuclear fuel is a by-product from nuclear reactors.
- Used nuclear fuel Canada is not a liquid or a gas. It's a stable solid sealed into a specially designed container called a "fuel bundle."
- A bundle is about the size of a fireplace log.
- Canada's existing inventory of about 3.3 million used nuclear fuel bundles is currently safely stored at existing reactor sites. Today's method is safe, but temporary, because it requires ongoing maintenance and management.



Canada's plan will ensure the
safe, long-term management
of used nuclear fuel inside
a deep geological repository.

The NWMO exists to implement
that plan in a manner that will
protect people and the environment
for generations to come.

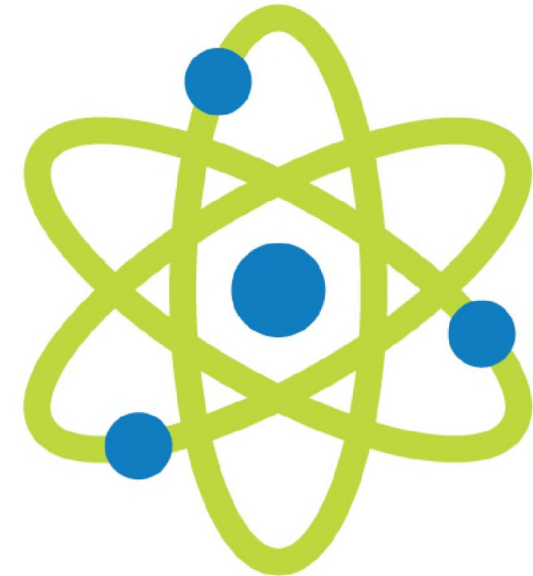
Here to implement a safe, long-term plan



Created in 2002



Through dialogue with
Canadians and Indigenous
peoples, Canada's plan
emerged



A non-profit organization
funded by waste owners

Common ground in public priorities



Safety and security must be pre-eminent



Assume responsibility now, in this generation

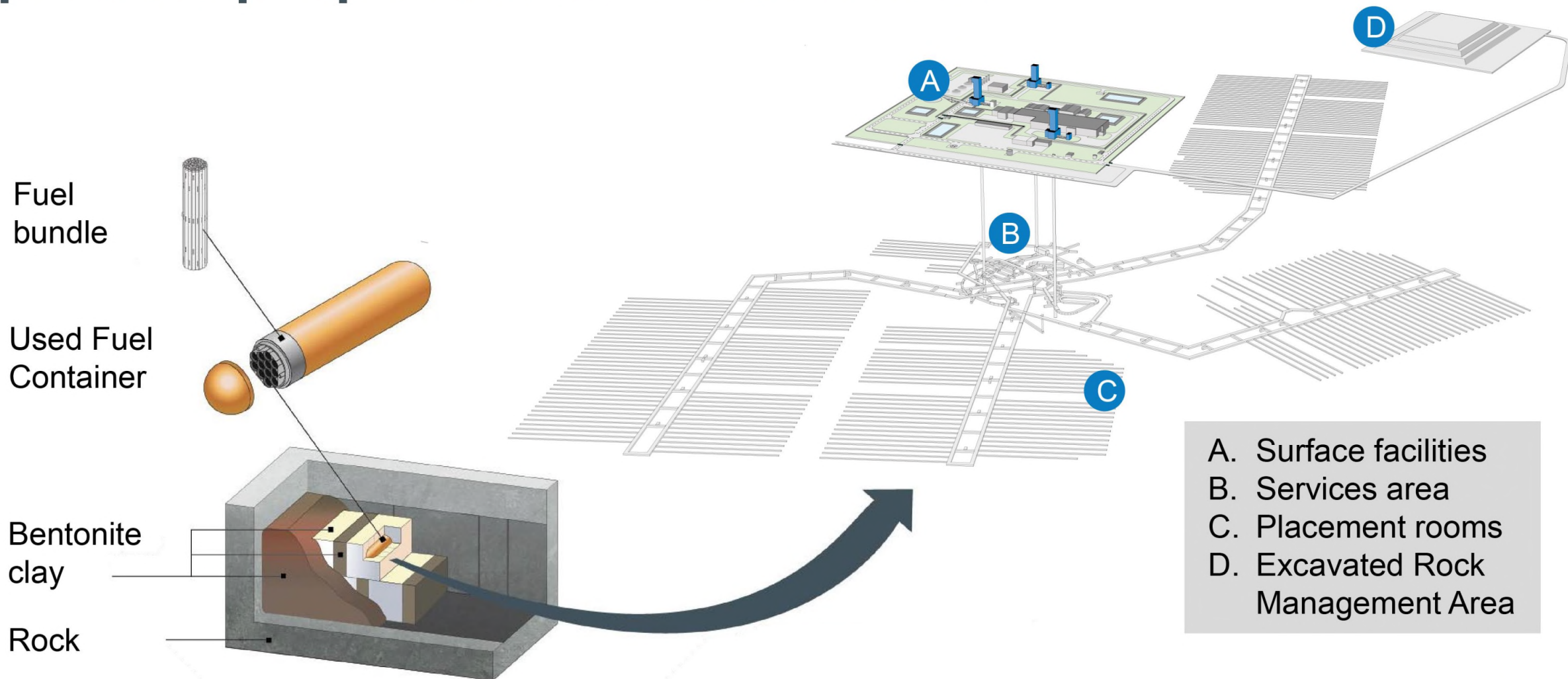


Aligns with international best practice



Approach must be adaptable

How a deep geological repository protects people and the environment





» Committed to Partnership



» Consent-based Siting & Upcoming Milestones

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.

We cannot and will not do this without Canadians and Indigenous peoples working together to implement Canada's plan.

Working towards Reconciliation



SASKATCHEWAN

- 1
- 2
- 3

ONTARIO

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Communities that expressed interest in the site selection process

● **Assessments underway in the area**

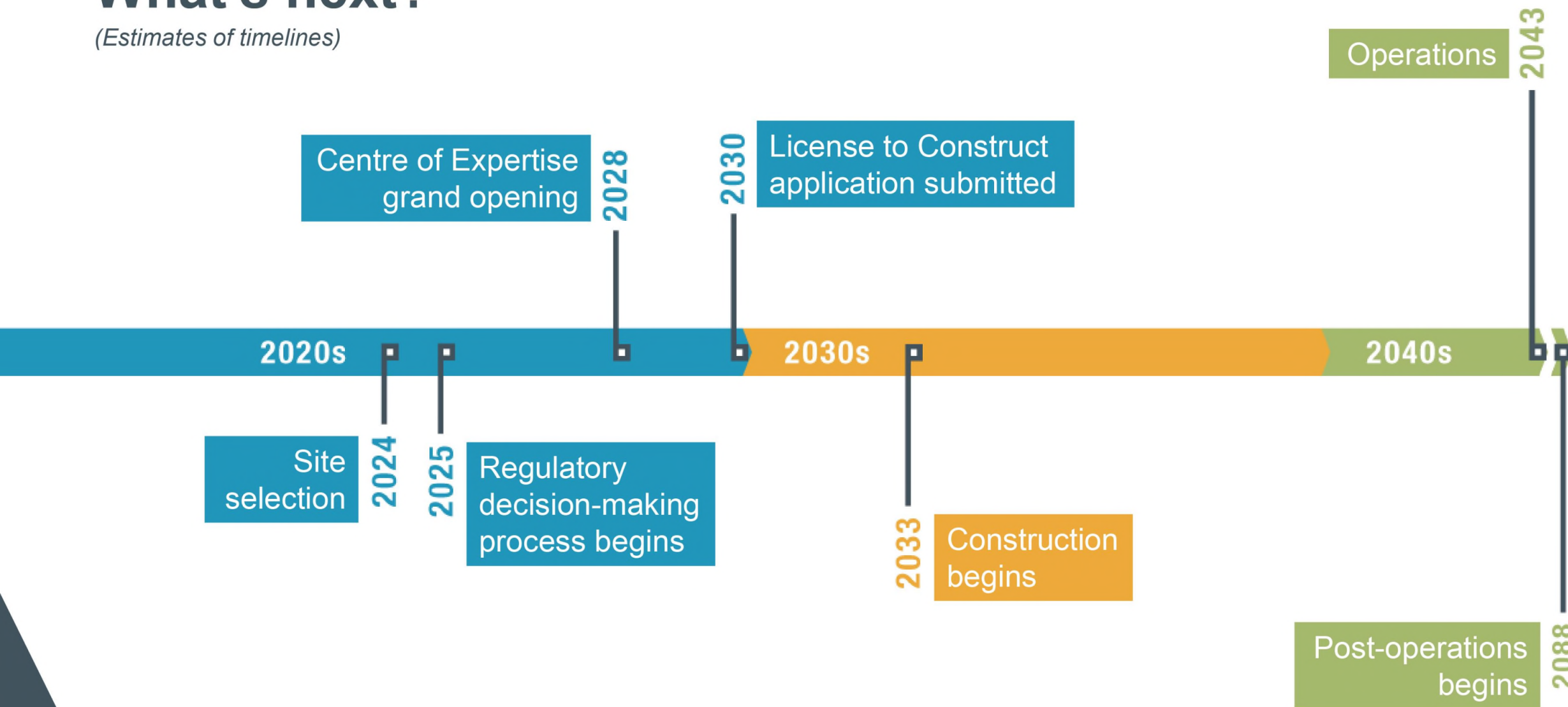
- 5. Ignace
- 21. South Bruce

● **Communities not identified for further study**

- 1. English River First Nation
- 2. Pinehouse
- 3. Creighton
- 4. Ear Falls
- 6. Red Rock
- 7. Nipigon
- 8. Schreiber
- 9. Manitouwadge
- 10. Hornepayne
- 11. White River
- 12. Wawa
- 13. Blind River
- 14. Elliot Lake
- 15. The North Shore
- 16. Spanish
- 17. Saugeen Shores
- 18. Arran-Elderslie
- 19. Huron-Kinloss
- 20. Brockton
- 22. Central Huron

What's next?

(Estimates of timelines)





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» International Cooperation

nwmo

Nuclear Power in the U.S. and Canada

- Supply chain
 - Canada-U.S. Energy Transformation Task Force (ETTF)
- New nuclear
 - OPG, TVA partner on SMR development
- Nuclear fuel
 - Russian fuel ban & friendshoring
- Climate change
 - Canada, U.S. commit to reaching net zero by 2050
- Consent-based siting & spent nuclear fuel
 - NRCan & DOE Joint Statement, March 2023
 - NWMO-DOE Statement of Intent, May 2023
 - COP28 Pledge, to Triple Nuclear Energy, December 2023



Joint Statement: NRCan & DOE

“Consent-based siting for the long-term management of radioactive waste is part of our common vision and foundational to building trust and support for nuclear energy.”

– Joint Statement Between the Department of Energy of the United States of America and the Department of Natural Resources of Canada on Nuclear Energy Cooperation, March 2023



NWMO-DOE Statement of Intent to Cooperate on Used Nuclear Fuel Management, May 2023



COP28 Pledge to Triple Nuclear Energy

The Participants in this pledge: “Commit to take domestic actions to ensure nuclear power plants are operated responsibly and in line with the highest standards of safety, sustainability, security, and non-proliferation, and **that fuel waste is responsibly managed for the long term;**”

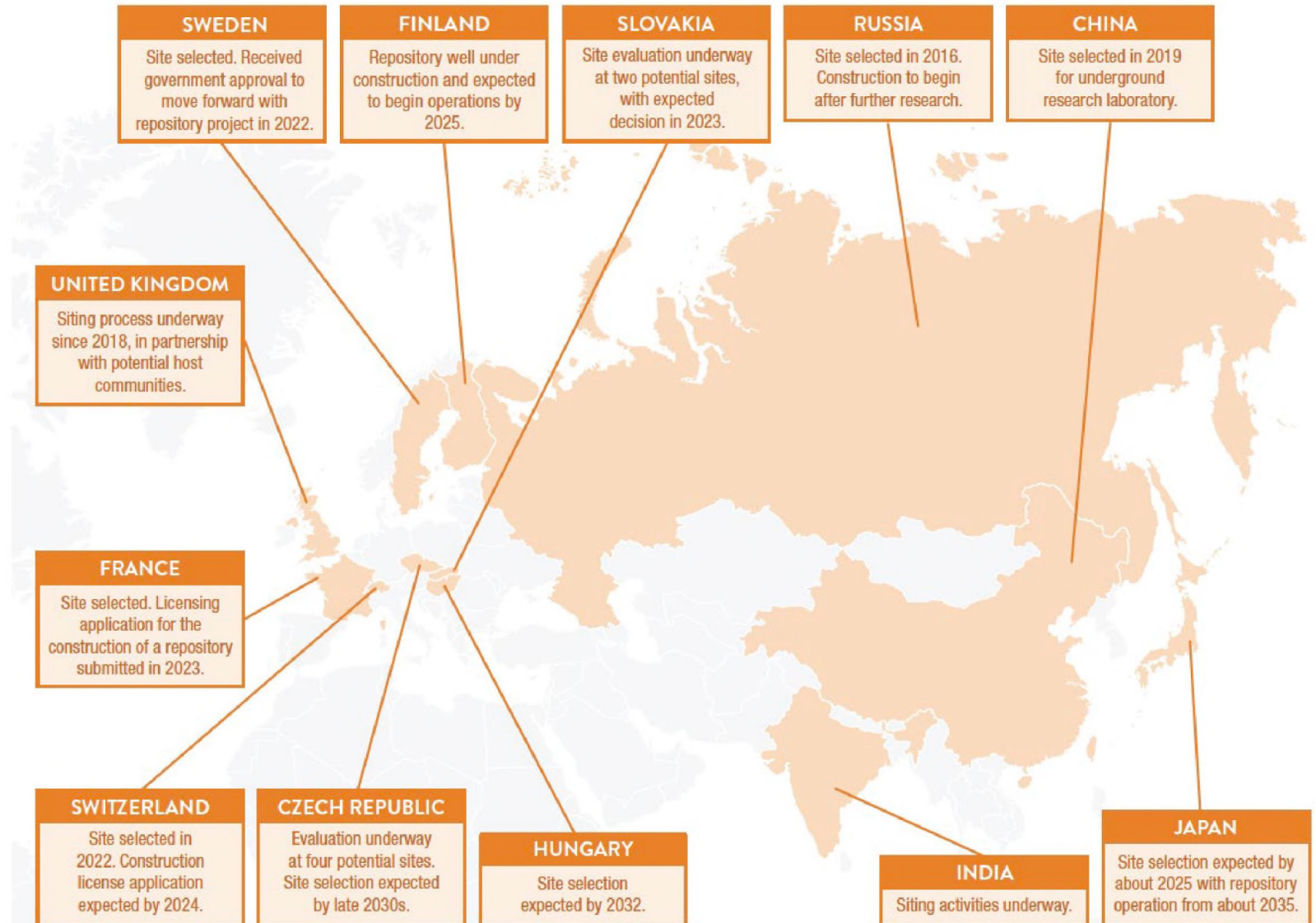
– Endorsed in December 2023 by Armenia, Bulgaria, Canada, Croatia, Czech Republic, Finland, France, Ghana, Hungary, Jamaica, Japan, Moldova, Mongolia, Morocco, The Netherlands, Poland, Republic of Korea, Romania, Slovakia, Slovenia, Sweden, Ukraine, United Arab Emirates, United Kingdom, and the United States.



What Other Countries Are Doing

The NWMO has co-operation agreements with our counterparts in Belgium, Finland, France, Japan, South Korea, Sweden, Switzerland, the United Kingdom and the United States.

We also have a memorandum of understanding with our counterpart in Taiwan.



Great Lakes Region Nuclear Power Facilities

Canada	United States
3 nuclear power stations in Ontario	23 power stations in seven of the eight Great Lakes states
94 percent of all Canada's nuclear electricity	37 percent of all United States' nuclear electricity

Table data from International Joint Commission, circa 2017. Indiana does not have nuclear power stations.



Map from International Joint Commission, 2022

Great Lakes Region Engagement

The NWMO maintains active relationships with a variety of Great Lakes region-based organizations:

- Great Lakes St. Lawrence Governors and Premiers (GSGP)
- Great Lakes Commission (GLC)
- International Joint Commission (IJC)
- Great Lakes and St. Lawrence Cities Initiative



»» Questions?