



 Belgian programme
on radioactive waste management

National update & EURAD expectations

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EURAD

Surface disposal

*2030: Start
waste disposal*



June 2025: public tendering
granted → Construction
starts soon



System optimization ongoing
→ Increase amount of
disposable waste



Intermediate depth disposal

Context

- Half of worldwide Ra produced by Union Minière in Olen, Belgium between 1922 & 1977
- Tailing & contaminated terrains of Ra-bearing waste remain
- ~30,000 m³ (partly) radioactive waste



Towards a policy

- Regulatory authorities to launch obligation to clean-up
- Preparation of Royal Decree for intermediate depth disposal

Geological disposal

Societal debate

- Confirms geological disposal
- Input on siting process

October 2022

2023 – 2024

*Towards
implementation*



2025 – onward

Policy decision by Royal Decree

- Geological disposal for ILW/HLW/SF
- Need for societal debate
- In parallel keep watch on deep boreholes, impact of P&T, joint international repository, ...

Preparing a new Royal Decree

- Describe process towards siting for geological disposal for ILW/HLW/SF in Belgium

PHOENIX law: Spent fuel → State

Context

- In 2023, the Belgian State and the energy producer agreed on the prolongation of some nuclear power plants
- Included deal on financing of future repositories and responsibilities of waste

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In exchange of a lump sum paid by the producer, the Belgian government takes over full financial responsibility for the waste and spent fuel

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Source: press release
on PHOENIX law

Implications

- ONDRAF/NIRAS will take over management of spent fuel from 2050 onwards
 - interim storage
 - conditioning or reprocessing (if decided so)
 - final disposal
- Majority of financing for final disposal is now by Belgian government

In conclusion

- Broad range of waste types
- Three disposal facilities

Strategy



Competence Anchoring

- Define roles for different Belgian actors
- Supported by Belgian State funding



Infrastructure & Investment

- Identify infrastructure needs
- Plan short-term investments

Surface disposal project is ongoing Institutional/legal Framework for **deep** & **intermediate** depth disposal is –finally– taking shape



Current status

1. Maintain knowledge

- Sustaining expertise is vital at every programme stage for all programme stakeholders.
- Training and knowledge management help onboard new talent, especially early career professionals.

2. Efficient resource use

Promotes use of resources at the European level through facility sharing (surface labs & URL's).

3. International Collaboration

- Enhances scrutiny and validation of knowledge and results.
- Builds confidence in safety of nuclear waste management steps through peer review.
- Remain informed on emerging topics for more advanced programmes

4. Joint Prioritization

Jointly setting priorities (WMO-TSO-RE) fosters mutual understanding.
Helps identify which issues are resolved vs. open questions.

BELGIAN
EXPECTATIONS
FOR EURAD-2

Key importance to Belgian partners

- Benchmark our science and results with international experts
- Networking to continue the advancements in specific domains
- Assess impact of new developments for the Belgian programme

Limits for a small programme

- Resources: financial resources to participate in co-funded activities and human resources could be challenging to find for some activities
- Focus needs to stay on targets and planning at national level → projects selected that are in line with and/or have clear added value for our national programme

Belgium welcomes the strategic shift in EURAD-2

Expanding the Focus Beyond Geological Disposal → Surface disposal

Strategic studies next to R&D projects strengthen the programme

- Allow to screen the status of specific topics and the needs from the different countries and colleges
- Aim to close an item or the be able to prepare the next phase of more in-depth research