

# Geological Disposal of Radioactive Waste

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Radioactive Waste  
Management

Working together to protect the future



# RWM vision and mission

## Our vision

is to create a safer future by managing radioactive waste effectively, to protect people and the environment.

## Our mission

is to deliver a Geological Disposal Facility and provide radioactive waste management.

# What waste are we talking about?



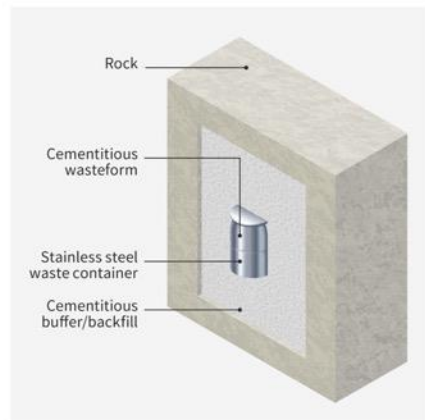
**HLW – High Level Waste**  
**ILW – Intermediate Level Waste**  
**LLW – Low Level Waste**



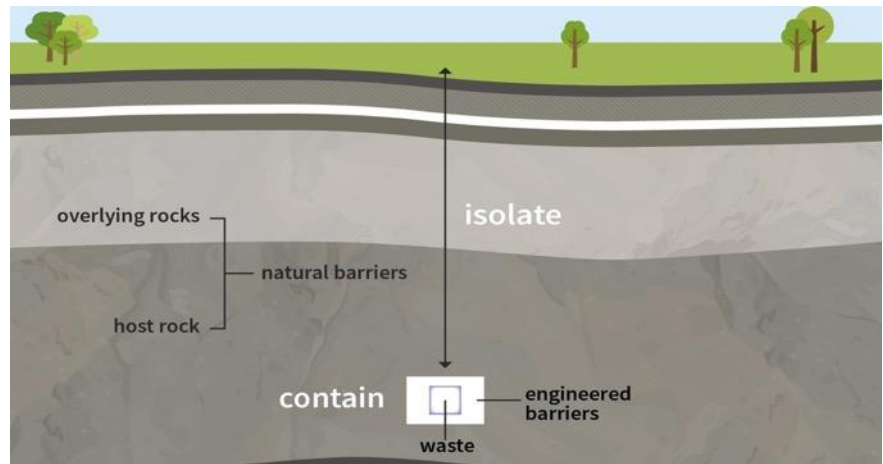
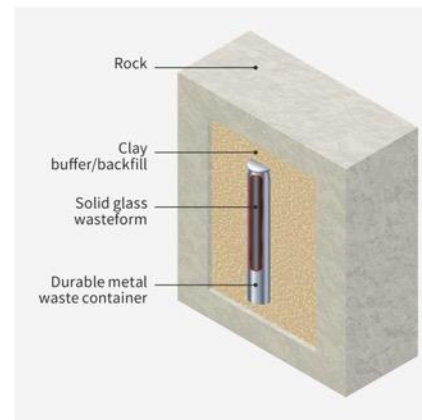
# How does Geological Disposal work?

- Engineered and natural barriers **isolate** and **contain** radioactive waste.

Intermediate Level Waste



High Level Waste



- Geological disposal provides safety through a combination of engineered and natural barriers that work together to provide isolation and containment of radioactive waste. This is called the **multi-barrier approach**
- Solid radioactive waste is packaged in secure engineered containers, typically made of metal or concrete, and then placed in a stable rock formation hundreds of metres below the surface, with the containers surrounded by clay or cement





# What will a GDF look like?

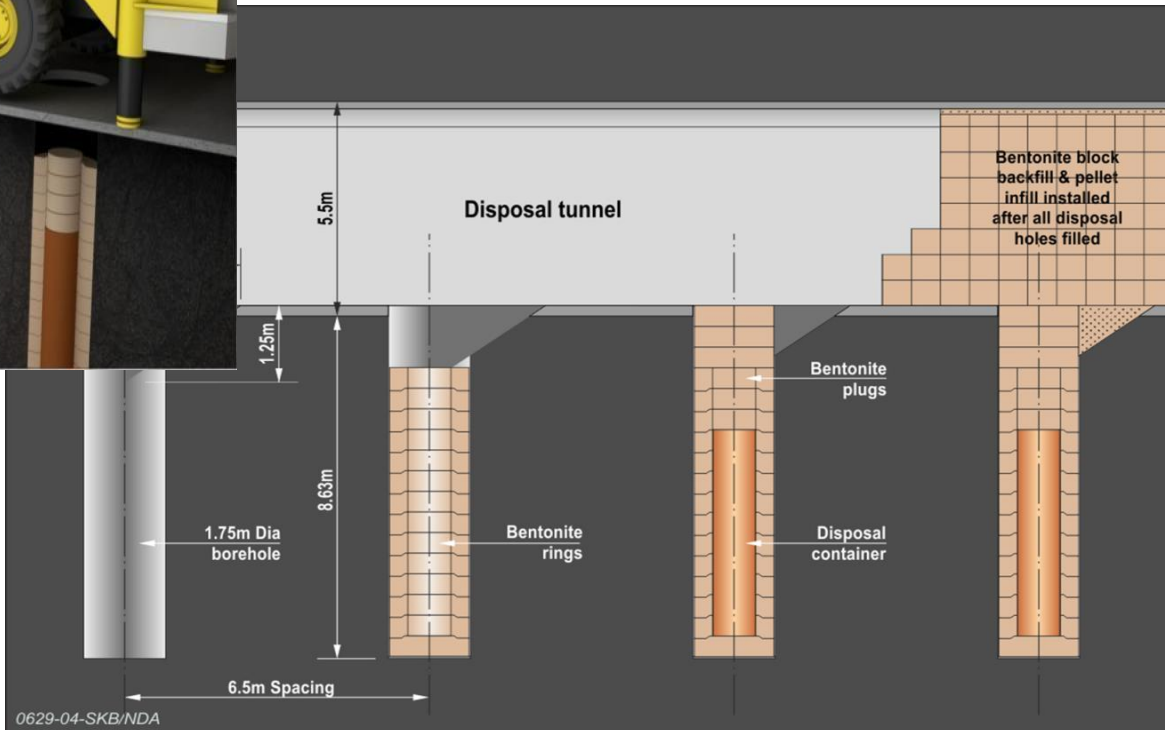
Up to 1000m

A GDF will be a highly engineered facility and a significant piece of UK infrastructure, with both surface and underground areas.

# ILW in underground vaults



# Deposition Tunnels (HLW)



# Internationally recognised as the best long-term solution

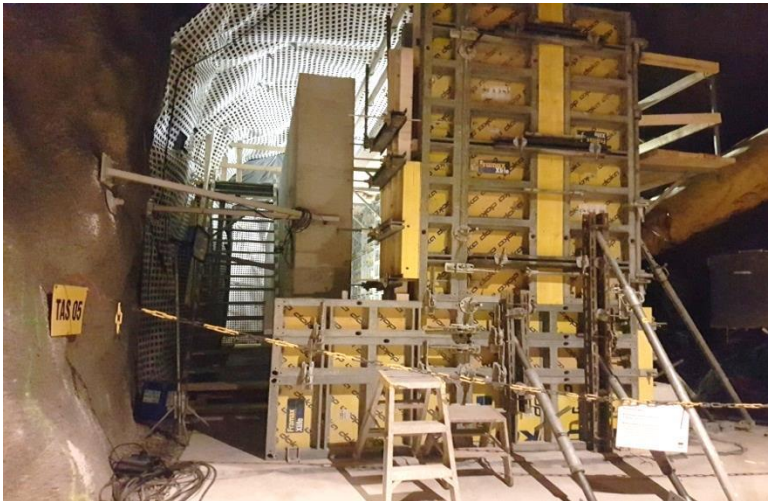
- Geological disposal is internationally recognised by governments and scientists as the safest solution for the disposal of higher activity radioactive waste
- A GDF is essential for the disposal of legacy wastes and for waste generated by current and future nuclear activities
- RWM works closely with its international colleagues to share knowledge and collaborate in research projects



Source: World Nuclear Association



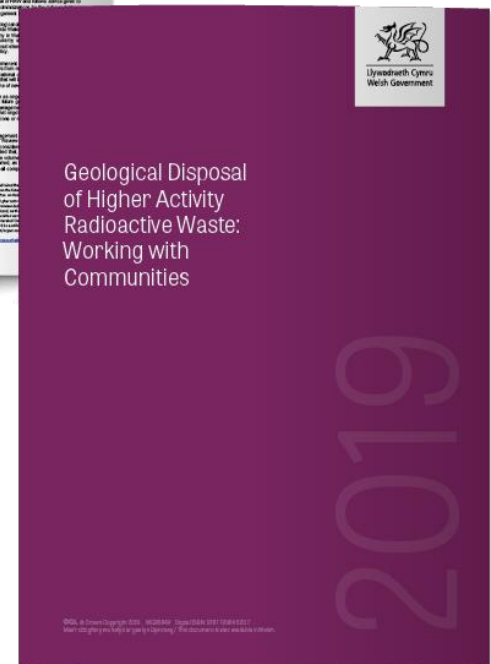
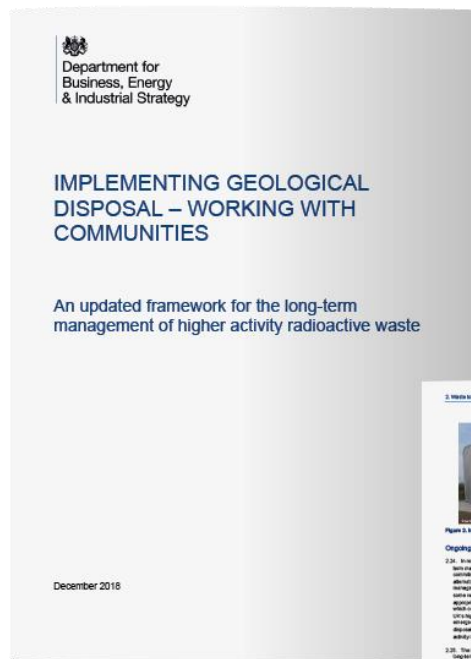
# GDF in development



# Current UK policies

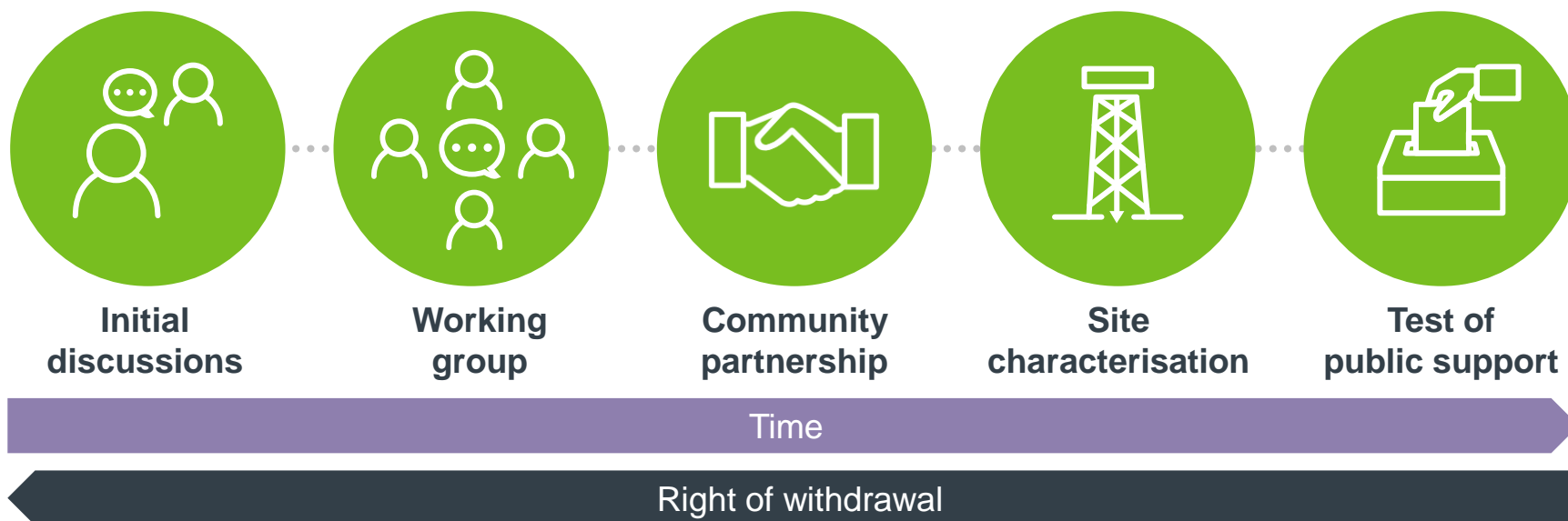
Local community consent is at the heart of this process and is written into Government policy:

- ✓ UK Government policy published 19 December 2018
- ✓ Welsh Government policy published 16 January 2019



# Finding a willing community with a suitable site

- Community consent-based approach
- To deliver a GDF, we will work in partnership with communities
- We will be open and transparent, with flexible processes as we adapt to the community's needs over time



# Community investment



Initially up to

**£1 million**

a year per community  
involved in the process



This will rise up to

**£2.5 million**

a year per community where  
detailed site characterisation is  
taking place



# Economic and community benefits of hosting a GDF

**Infrastructure investment**

Investment will flow into a community that hosts this multi-billion pound infrastructure project



## **Jobs and skills**

There will be thousands of well-paid jobs for over a century

## **Community support**

Local projects will benefit from Community Investment Funding, and public facilities and infrastructure will be improved over the long term

# Geological disposal: making it happen



**Making it safe:** Office for Nuclear Regulation and environment agencies - independent bodies that will only authorise construction and operation of any facility if the developer can demonstrate that it will be safe, secure and the environment will be protected.

# Find out more

To learn more about the UK's mission to deal with radioactive waste:

Visit the website [geologicaldisposal.campaign.gov.uk](http://geologicaldisposal.campaign.gov.uk)

Email: [gdfenquiries@nda.gov.uk](mailto:gdfenquiries@nda.gov.uk)

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