



# New nuclear in the UK and beyond

**Professor Neil Hyatt,  
Chief Scientific Adviser.**

**8 September 2022.**

# New nuclear in the UK and beyond

Nuclear Waste Services: formed in 2022

- Part of the Nuclear Decommissioning Authority group
- Integrated capability formed from RWM, LLWR, and IWMP.

What we do:

- Major Capital Programmes: GDF project developer.
- Waste Operations: nuclear site licence operator.
- Waste Services: provider of waste management services and solutions.

# New nuclear in the UK and beyond

Inventory for Geological Disposal (2019); radioactive wastes and materials not currently classified as waste from:

- Historic civil and defence nuclear programme
- 16 GWe new nuclear build programme

UK Geological Disposal Facility:

- Consent based process: willing community and suitable site
- Updated cost estimate: £20-53 billion
- Updated first waste emplacement: 2050s

# New nuclear in the UK and beyond

Future considerations:

- 24 GWe new nuclear by 2050s
- Nuclear fusion technology
- Near surface disposal
- Advanced reactors and fuel cycles

“If, however, the list of waste and materials were to change significantly it would need to be discussed with the Potential Host Community. A process for agreeing any future material changes to the categories of waste to be disposed of in a GDF would need to be agreed before the Test of Public Support. ”

Implementing Geological Disposal: Working with Communities (2018).

# New nuclear in the UK and beyond

## Beyond the UK

- Objective to be a world leader in facilitating international collaboration
- Share experience and demonstrate leadership
- Contribute to, and influence, guidance and standards
- Collaborate to learn from experience
- Collectively build trust in waste management and disposal technology
- Support wider UK interests, but core mission remains our focus

# Planned recruitment in Applied Science and Research

## **1. Principal Research Manager – High Heat Generating Waste Disposal (Band 3-2)**

Leading the technical integration of HHGW Vaults research and Pu / Uranics disposal research. Manages a team of 5 staff

## **2. Senior Research Manager – Corrosion Science (Band 4-3)**

Waste container evolution, as well as metallic wastefrom / component research. A materials science understanding of non-metallic HHGW wastefroms beneficial.

## **3. Research Manager – Spent Fuel (Band 5-4)**

To support deployment of our spent nuclear fuel research programme.

## **4. Senior Research Manager – Biosphere (Band 4-3)**

## **5. Research Manager – Biosphere (Band 5-4)**

Lead / support site-specific biosphere characterisation work, development of conceptual ecosystem model and site descriptive model, support development of safety case for the GDF.