



**Nuclear Waste
Services**

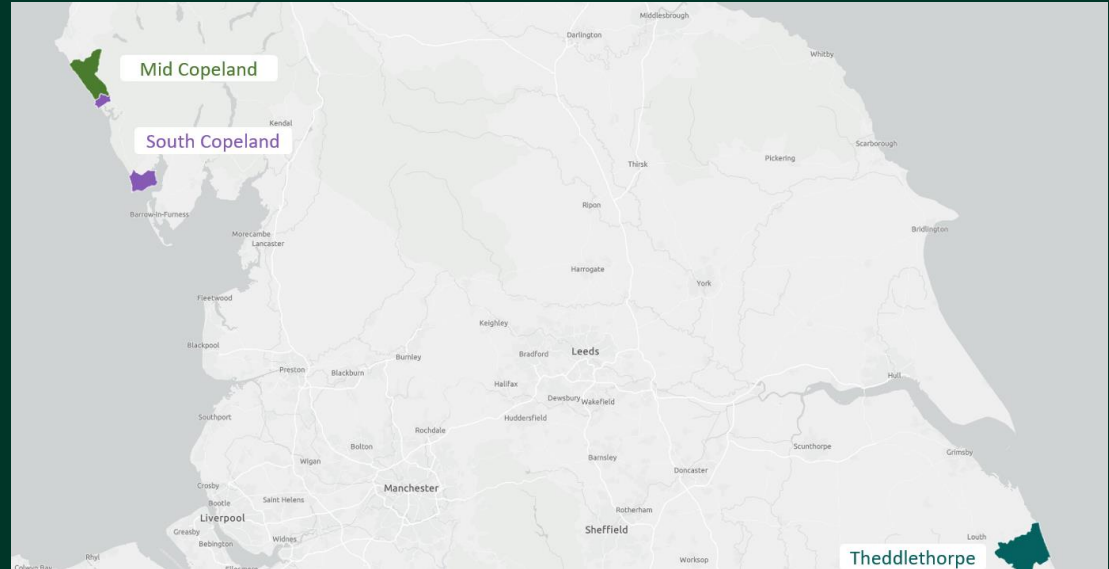
Intergenerational aspects relevant to development of the UK GDF Programme and safety communication

NUMO Technical Advisory Committee, 2024.

**Professor Neil Hyatt
Chief Scientific Adviser**

Current position of the UK GDF programme

- Three communities actively engaged in siting process, targeting LSSR inshore.
- Siting process discontinued in Allerdale and South Holderness.
- Site characterisation prep: borehole recommendation 2026, execute 2029.
- Update to Secretary of State at end of 2024.





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Intergenerational aspects relevant to development of the UK GDF Programme

Neil Hyatt, Claire Tandy, and Russell Morris

We are operating in unprecedented times.....

- The UK working age population is in decline
- Effects of Brexit on immigration
- Hybrid / remote working in the post-Covid world
- Organisational culture and Employee Value Proposition
- We are competing for the same skill sets as other sectors and industries



The UK Nuclear Sector is growing exponentially.....



New Energy

- Exponential growth due to nuclear new build, the entry of SMRs (Small Modular Reactors) into the market and the growth of Fusion technology.



A National Nuclear Skills Plan

- The plan for skills brings together all aspects of the nuclear sector from energy creation, decommissioning and waste management, to defence.



Deepening The Talent Pool

- Destination Nuclear is established with the aim of raising the profile of the sector and the jobs within the sector.

What does this mean for our GDF Programme?























- Resourcing and developing the skills required far beyond traditional nuclear operations and decommissioning that exist today

We need both ***'Nuclear Skills'*** & ***'Skills for Nuclear'***

- Sharing and promoting our mission is essential to attract the workforce of the future across the duration of our mission.

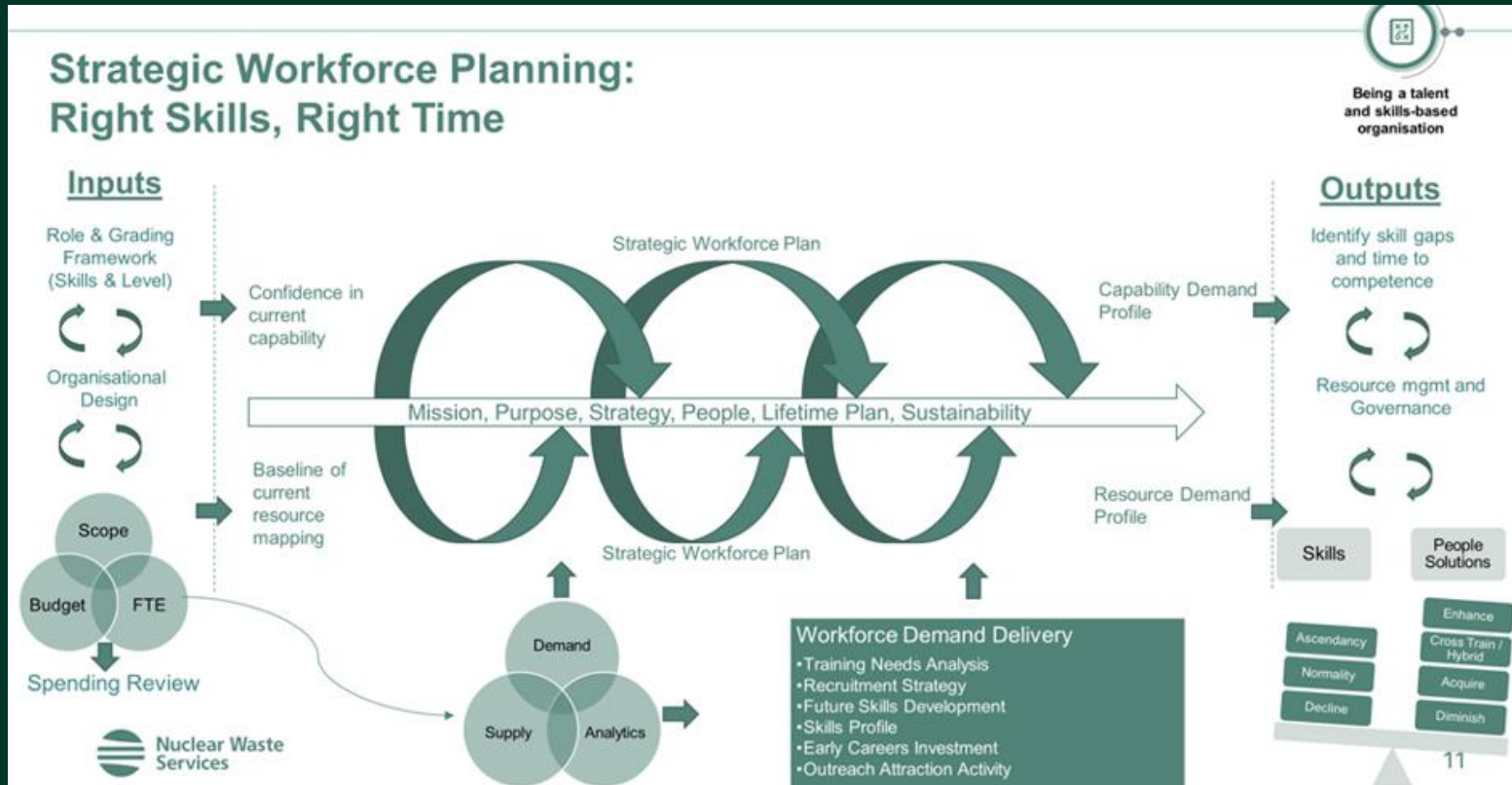


What does this mean for our GDF Programme?

1	 Nuclear Engineers	Nuclear Engineers, Core Pie Designer, Core Thermal Analyst, Warhead Physics and Engineering Design, Nuclear Operative	 Nuclear Skills
2	 Systems Engineers	Systems Engineers, Combat Systems Engineer, Containment Systems Engineer, Engineering Authority Strategic Weapons System Engineer	 Nuclear Skills
3	 Health and Safety - Radiological Protection	Accredited Health Physicist, Accredited Radioactive Waste Engineers, Radiological Protection Advisors, Radiological Protection Engineers, Radiological Protection Monitors	 Nuclear Skills
4	 Project Planning and Control	Schedulers, Project Planning and Control, Project Quantity Surveyor, Project controls/Controllers	 Skills for Nuclear
5	 Generation	Reactor Operators, Fuel Route, Naval Reactor Engineer, Reactor Desk Engineers	 Nuclear Skills
6	 Welders	Eng Con Ops (Welder), Plate welders, Welders Pipe Welding, Welding Operators, Welding Engineer, Welding inspectors	 Skills for Nuclear
7	 Trades Support (not otherwise counted)	Electricians, Heavy Lift Marine Workers, Logistics, Semi-skilled engineers, Bus drivers, Catering, Plant Operative	 Skills for Nuclear
8	 IT and Telecoms	Digital Data Engineer, Digital Data Specialists, Information Assurance, Cyber	 Skills for Nuclear
9	 Civil and Structural Engineers	Civil Engineers, Civil Engineering Operative, Structural Integrity Analyst, Nuclear Specialist Structural Engineers, Structural Analyst	 Skills for Nuclear
10	 Nuclear Safety Case Preparation	Safety Case Authors, Engineers, Safety Case	 Nuclear Skills
11	 Mechanical Engineers	Materials Engineer, Mechanical Engineers, Mechanical Handling Engineer,	 Skills for Nuclear



Planning for and underpinning our Mission.....





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Intergenerational aspects relevant to safety communication

Lucy Bailey and Neil Hyatt

The challenge: Growing the safety case community

- Geological disposal is a long-term project that none of us will see from beginning to end - we have the opportunity to be part of a rewarding journey
- Safety cases are complex and multi-disciplinary, requiring scarce and niche skills, for which there is stiff competition
- Attracting and developing a skilled workforce and continually passing on knowledge and supporting those that come after us is vital for success



Creating our skills pipeline

- **Nuclear Graduates** – a UK scheme offering multiple placements over 2 years (often 1 year overseas), with leadership and business skills and mentoring support
- **NWS RSO** – Annual PhD bursary scheme for research relevant to safety case, establishing direct links between students, NWS SMEs and senior academics
- **YPN** – an NWS network of young people providing peer support and career mentoring



Developing our people

- Mentoring – formal and informal programmes, linking new staff with seasoned professionals
- Creating opportunities – involving the next generation in key events and planning, listening to the Young Generation voice (e.g. meaningful and challenging projects, secondments to other programmes or functions to develop breadth of skills required for the safety case)
- Support and encouragement – the next generation needs to learn quickly; we can share our experience to avoid the mistakes of the past – creating a culture of inter-generational learning
- Long-term succession planning with plenty of handover



Working with others: Developing international community

- NWS staff have leading roles in the international safety case community, e.g. the OECD-NEA Integration Group for the Safety Case (IGSC) and have been instrumental in supporting the recent launch of the IGSC YGN
- International safety case reviews – supporting our sister WMOs and developing our staff (e.g. Nagra safety case review & NWSMO SARG)
- EURAD Roadmap – NWS authored the Safety Case theme overview, setting out the skills required to deliver a safety case at each programme stage
- Supporting IAEA safety case missions – honing skills and supporting less advanced programmes

