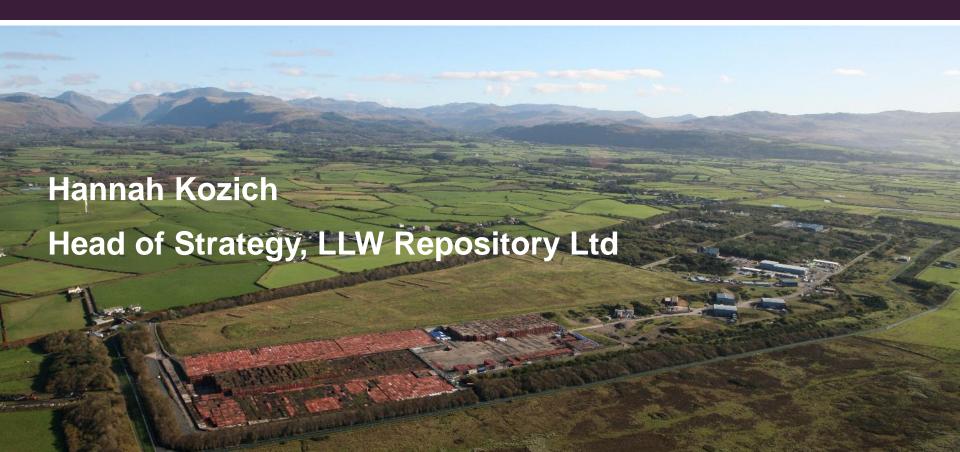


Sustainable radioactive waste management and decommissioning in the UK

Thinking differently about waste



Presentation topics

- UK nuclear industry overview
- Sustainable decommissioning
- LLW waste management

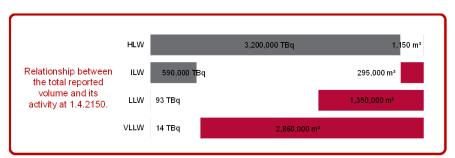
UK Nuclear Industry

- 17 decommissioning sites owned by the NDA
- 7 operating reactor sites owned by EDF Energy
- Defence and non-nuclear sites



UK Radioactive Waste Inventory

 HIGH LEVEL WASTE Wastes in which the temperature may rise significantly as a result of their radioactivity, so this factor has to be taken into account in the design of storage or disposal facilities. **HLW** INTERMEDIATE LEVEL WASTE Wastes exceeding the upper boundaries for LLW, but which do not require heating to be taken into account in the design of storage or disposal facilities. ILW LOW LEVEL WASTE Wastes having a radioactive content not exceeding 4 Gigabecquerels per tonne of alpha activity or 12 Gigabecquerels per tonne of beta/gamma **LLW** activity. VERY LOW LEVEL WASTE A sub-category of LLW **VLLW**





Sustainable decommissioning

- Waste informed
- Repurposing of facilities
- Consolidation of facilities
- Reuse of materials
- Asset transfer



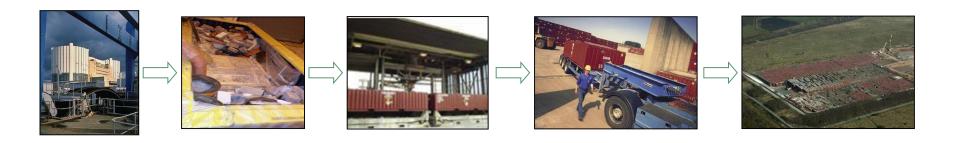


Learning

- 1. Changing the mindset and culture is key to delivering sustainable solutions for decommissioning.
- 2. Organisational structures can inhibit change.
- 3. Repurposing facilities and reusing assets are good ideas but can be difficult to deliver.

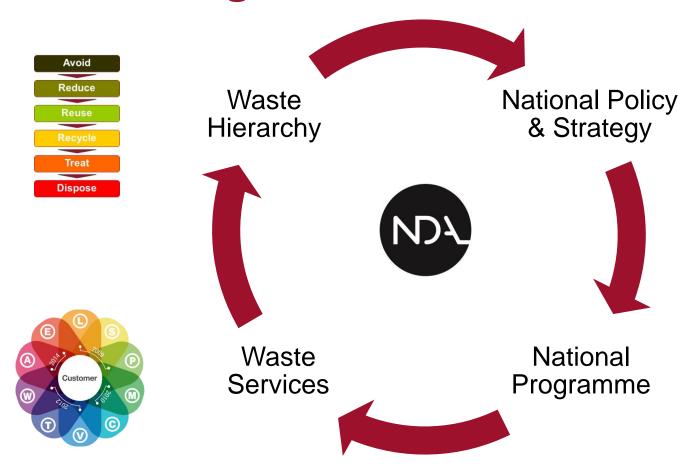
LLW Management

The historic approach to LLW management was not sustainable.



- Waste receipts to the LLWR averaged 500-800 HHISOs per year prior to 2009.
- The total forecast LLW arisings was estimated to be 4 times the maximum capacity of the repository.

Delivering a sustainable solution for LLW management

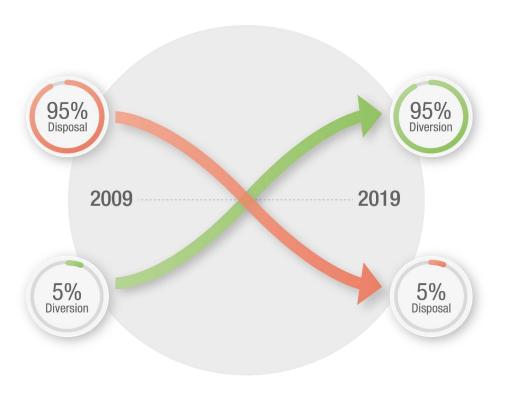








Moving from disposal to diversion



>29,000 te metallic waste

>22,000 m³ incinerable waste

>58,000 m³ alternate disposal

100 year life extension for the LLWR



Learning – how to deliver the change

- Alignment of national policy and strategy
- 2. NDA responsible for delivery
- 3. Programme approach to implement
- 4. Make it easy
- 5. A sustainable supply chain
- 6. Align organisational incentives
- 7. Broad stakeholder engagement and continuous communication
- 8. Keep learning and innovating



Questions?