



Urenco Metals Recycling (UMR)

Contributing
to a more
sustainable
future

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Metal recycling is a critical enabler to UK nuclear decommissioning programmes and ultimately to Nuclear New Build. UK treatment capability for radioactive metallic wastes currently covers only a limited range of cleaning operations, with reliance on overseas facilities for full treatment including metal melting. UMR will offer a range of services realising a 'UK based - one stop shop' for environmentally optimised metallic waste treatment, whilst contributing to a sustainable, Net Zero future. Urenco is committed to making this happen and we seek the same level of commitment from our stakeholders to help us realise this vision.

Urenco Metals Recycling - A full lifecycle solution for metallic waste treatment centrally located in the UK.

The facility, planned to be operational in 2024, including the **UK's only melter for radioactive metals**, will provide a wide range of treatment services for radioactive metal clearance and recycling, **supporting the decommissioning needs of the UK**: Increasing the capacity and availability of economically viable recycling options, all of which ultimately aligns with, and supports Net Zero, Industrial Decarbonisation and Nuclear Decommissioning Authority Strategies, and is an enabler for Nuclear New Build.

Driven by Urenco's own future requirement for metal recycling, the UMR facility will **serve the needs of the UK** industry by bringing services to UK sites that can only currently be accessed overseas. This will provide an optimised solution for UK sites.

Financial commitment for progression of the UMR facility has been secured. **We have the need, ambition and vision.**



BRITAIN & NORTHERN IRELAND

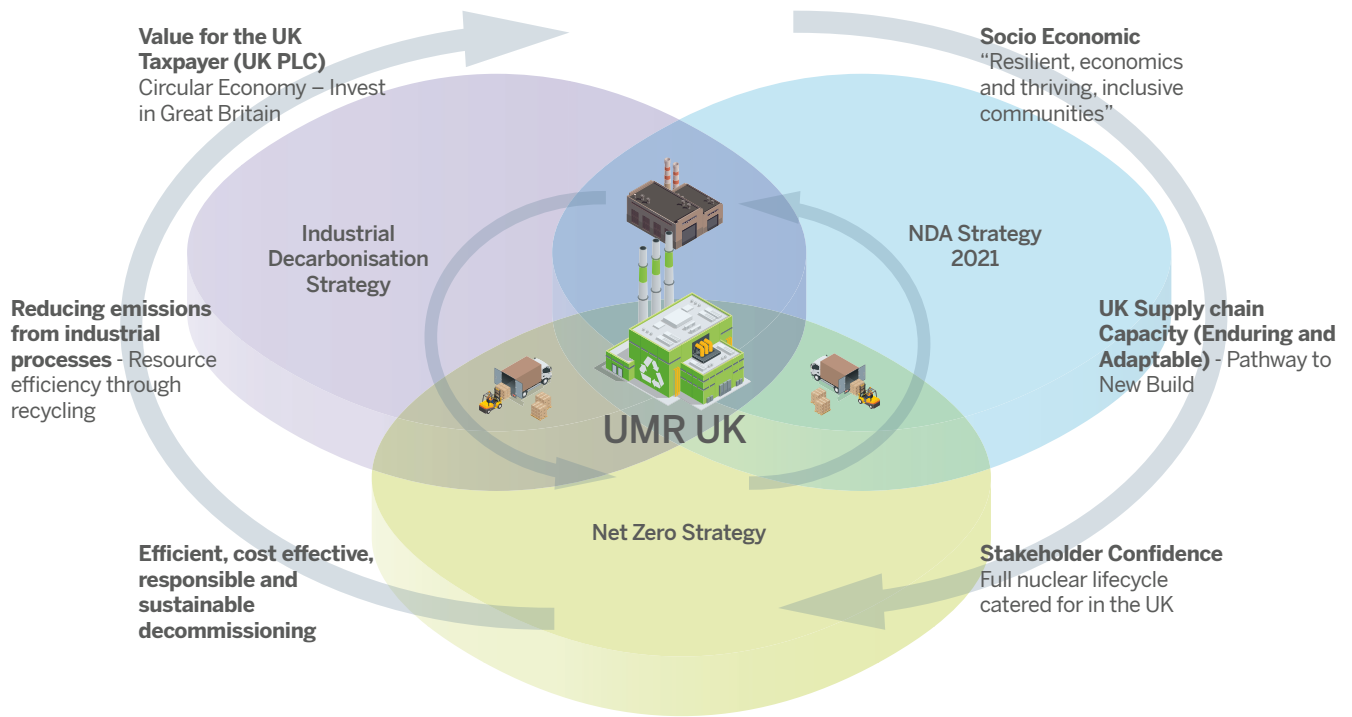
“Levelling up the country, ending our domestic contribution to climate change, and leading the world to a greener, more sustainable future”.

UK Net Zero Strategy: Build Back Greener

TODAY - Currently metallic waste treatment of radioactive metals arising in the UK is restricted to a limited range of cleaning operations, with further decontamination for recycling through melting only available overseas. This situation can lead to assessments for metallic waste management being constrained to overcomplicated and high cost melting overseas, or landfill disposal in the UK. This is often due to the complications associated with Transfrontier Shipment¹, the Proximity Principle, safety considerations and the often disproportionately high cost.

THE FUTURE - UMR will offer a range of services realising a **'UK based - one stop shop'** for environmentally optimised metallic waste treatment. The result of this will be a **flexible service**, allowing waste producers to **maximise the mass of metal which is cleaned, recycled and released back into the open market.**

A direct effect will be the ability to **accelerate the decommissioning of redundant nuclear facilities**, allowing high hazard reduction projects to be further prioritised.



Benefits – In line with the “3 pillars of sustainability”

Economy

- UMR will bring the full radioactive metal waste lifecycle within the UK Economy
- Increasing efficiencies, reducing costs to the UK Taxpayer²
- Improving UK supply chain capacity
- GREEN JOBS – Well paid, sustainable and skilled UK based jobs.

“Develop the UK supply chain as a global leader in the nuclear decommissioning market” – NDA Strategy 2021

Society

- Decommissioning and remediating our nuclear sites in the most effective, efficient and sustainable way.
- Maintaining a suitable decommissioning and waste management capability which is both enduring and adaptable to change.
- Maximising the social value for the taxpayer, thereby encouraging diverse and resilient economies and thriving, inclusive communities.
- Improved stakeholder confidence and trust – New Build enabler.

“Our most important step to achieving net zero is to take ambitious decarbonisation measures across society” - Net Zero Strategy: Build Back Greener

Environment

- Eliminating waste and reducing the consumption of natural resources by design; through the reuse, repair, repurposing and recycling of assets.
- Contributing to decarbonising the estate, and supporting the UK commitments to reduce greenhouse gas emissions to Net Zero in England and Wales by 2050 and in Scotland by 2045.
- Resource efficiency through recycling as opposed to mining, refining and manufacture of ‘new’ metal.
- Reducing emissions from industrial processes by keeping products and materials in circulation for longer.

“Levelling up the country, ending our domestic contribution to climate change, and leading the world to a greener, more sustainable future” – UK Net Zero Strategy: Build Back Greener

Key figures³:

- Designed Throughput: **4,000te per year**
- Potential savings using NDA forecasts i.e. **90% recyclable**.
- CO2 savings - over lifetime:
~5,000te/year
~125,000te

Urenco is committed to making this happen and we are seeking the same level of commitment from our stakeholders to help us to realise this vision. This is a golden opportunity, to bring the full metallic waste lifecycle within the UK, realising real benefits to society, the economy, and the environment. The time is right!

In order to support our UMR vision we need:

- Commitment for throughput to support facility business case, planning and design.
- Imbedding of a 'UK based - one stop shop' for environmentally optimised metallic waste treatment in BEIS and NDA strategy.
- Support with planning applications and permissions – make it happen by 2024.

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Contributing to a more sustainable future and investing in capacity for the future

Footnotes

¹ Transfrontier Shipment of waste regulations govern the movement of non-hazardous recyclable materials across international borders, to enable recovery. Waste for disposal and exports of hazardous waste are largely not permitted under the regulations.

The Proximity Principle suggests that waste should be managed as near to its place of origin as possible, recognising that transport of waste has environmental, social and economic costs.

² It is anticipated that the reduction in cost to the UK Taxpayer will result from the recycling of metals as opposed to the mining, refining and manufacture of 'new' metal; the removal of bureaucracy for metal melt overseas and the efficiencies realised by having the full metallic waste life cycle available in the UK.

³ These figures are based on DEFRA estimates for CO2 savings between steel production from recycled and virgin material origin. This uses the nominal UMR design throughputs and representative recycling rates, and conservatively assumes all metal will be melted; in practice some will be recycled without requiring melting.