

News story: Collaborative decommissioning research TRANSCENDS the individual approach

The research will span 40 projects lasting up to 4 years each, helping to build the next generation of nuclear experts as well as developing technical solutions.

Building on a core grant of £4.6 million from the [Engineering & Physical Sciences Research Council \(EPSRC\)](#), AWE, Cavendish Nuclear, Low Level Waste Repository Ltd, National Nuclear Laboratory, Radioactive Waste Management Ltd, Sellafield Ltd and TUV SUD Nuclear Technologies are all supporting the programme through direct funding and/or supervisory expertise, use of facilities and researcher training, resulting in the total funding pot of more than £9 million.

Those working on the projects will include a mixture of PhD students and Post-Doctoral Researchers, each with academic and industrial supervisors, the latter being technical experts from within industry to ensure maximum 2-way knowledge transfer.

Known as TRANSCEND (Transformative Science and Engineering for Nuclear Decommissioning), the work builds on 2 previous programmes, DIAMOND and DISTINCTIVE, the former having concluded in 2013, with the latter due to finish in early 2019.

The consortium of 11 universities will be led by the University of Leeds and includes:

- Imperial College London
- Lancaster University
- Queen's University Belfast
- University of Birmingham
- University of Bristol
- University of Leeds
- University of Manchester
- University of Sheffield
- University of Southampton
- University of Strathclyde
- University of Surrey

The research topics to be explored by the TRANSCEND consortium align with the NDA's key themes of:

- Integrated waste management
- Site decommissioning and remediation
- Spent fuel
- Nuclear materials

TRANSCEND's work will build on the significant progress made in these areas by the DISTINCTIVE consortium, contributing to tackling the UK's nuclear legacy.

NDA Research Manager Dr Rick Short said:

Our industry benefits hugely when high-level academic research is focused at some of the challenges we face in decommissioning our nuclear legacy. We welcome this collaboration and look forward to seeing the progress that these important projects will deliver. Equally valuable will be the development of knowledge and expertise for the participants – we hope their skills will be with us for many years ahead.

Jon Martin, Head of Research at RWM, said:

Research is critical to exploring and understanding all aspects of the science associated with a future geological disposal facility that will be required to keep radioactive waste safe for many thousands of years. We welcome the news that the TRANSCEND collaboration has received approval and look forward to working in partnership with the many world-class research institutions and industry representatives involved.

NNL's Science Ambassador, Gareth Headdock, said:

As a national research lab, NNL will provide the key integrating interface between those carrying out the research and those needing solutions, to ensure they are aligned. This is primarily through the provision of industrial supervision and access to the world-leading facilities in our Central Laboratory on the Sellafield site.

We know that to achieve transformational developments in the way we approach waste management and decommissioning, we need to think differently, disrupt the established ways of working and collaborate with others like never before.

Geoff Randall, Senior Scientist at Sellafield Ltd, said:

The previous programmes have led directly to the development of new equipment like Acoustic Back Scattering technology that is being installed in a settling tank for Pile Fuel Storage Pond sludge removal. We've also been able to accelerate hazard reduction, partly as a result of fundamental research into Magnox Swarf Storage Silo materials, and prepare the next generation of

engineers and scientist to face our challenges. We are pleased to be part of this exciting new programme.

Principal Investigator for the DISTINCTIVE and TRANSCEND programmes, Professor Michael Fairweather of the University of Leeds, said:

This research consortium represents an important activity in reinforcing the industry-academia links that have grown significantly in recent years, and provides key support to underpin an academic skill base in this crucial area for the UK. The world-leading team of academic experts provides both depth and breadth across all areas of current research need, and the strong support of our key industry partners validates the usefulness of the research programme we will undertake.

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Notice: TS23 1PX, Tees Eco Energy Ltd: environmental permit issued

The Environment Agency publish permits that they issue under the Industrial Emissions Directive (IED).

This decision includes the permit and decision document for:

- Operator name: Tees Eco Energy Ltd
 - Installation name: Billingham Reach Energy for Waste
 - Permit number: EPR/NP3537YY/A001
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Press release: Bluetongue virus detected and dealt with in two imported cattle

The UK's Deputy Chief Veterinary Officer has urged farmers to remain vigilant for bluetongue virus after the disease was successfully picked up in two cattle imported from France through our routine post-import testing regime.

The Animal and Plant Health Agency (APHA) and the Pirbright Institute identified the disease in the animals when they were brought to North Yorkshire in England from an assembly centre in Central France, where bluetongue continues to slowly spread.

Bluetongue does not affect people or food safety. The virus is transmitted by midge bites and affects cows, goats, sheep and other camelids such as llamas. It can reduce milk yield and cause infertility and in the most severe cases is fatal for infected animals. The midges are most active between May and October and not all susceptible animals show immediate signs of contracting the virus.

Action is being taken to ensure the risk of spread of the disease is reduced, with movement restrictions at the affected premises. The two cattle were isolated and have been humanely culled.

Strict rules on the movement of livestock from regions affected by bluetongue are already in place and farmers are reminded that animals imported from these regions must be accompanied by the relevant paperwork to clearly show they meet certain conditions designed to reduce disease risk, such as correct vaccination.

Following the successful interception of the infected animals, the UK remains officially bluetongue-free, the risk of the disease remains low and exports are not affected.

Deputy Chief Veterinary Officer for the UK, Graeme Cooke, said:

Bluetongue does not pose a threat to human health or food safety, but the disease impacts farming, causing reduced milk yield in cows and infertility in sheep.

This detection is an example of our robust disease surveillance

procedures in action but must highlight to farmers the risks which come with bringing animals from disease-affected areas into their herds. Regulations and systems are in place for the benefit of our UK livestock industry.

It is also a clear reminder for farmers that the disease remains a threat, despite coming towards the end of the season when midges are active.

Farmers must remain vigilant and report any suspicions to APHA. Farmers should work with their importer to make sure effective vaccination needs are complied with, source animals responsibly and consider the health status of their own herd if they are not protected

Movement restrictions will remain in place on the premises for at least several weeks until testing rules out spread via local midges.

Farmers have the option to send animals without fully compliant paperwork back to France or to cull them as a measure to reduce the risk of disease spreading to susceptible UK livestock.

The UK Government has worked closely with a number of groups to raise awareness of the threat of bluetongue through the Joint campaign Against Bluetongue (JAB). The most recent case of the disease in the UK came in 2007. The UK has been officially free from the disease since July 2011.

More information about bluetongue is [available here](#).

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