

## Promotional material: Countryside Stewardship facilitation fund case studies

The facilitation fund supports over 60 groups with 1400 farmer/land manager members. These case studies illustrate the range of approaches taken by the groups.

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## Corporate report: Scrutiny of Radioactive Waste Management: annual report 2016 to 2017

The Environment Agency and Office for Nuclear Regulation's (the nuclear regulators) joint publication about their scrutiny of RWM's work relating to geological disposal of radioactive waste.

Government policy for managing higher activity radioactive waste in the long term is through geological disposal.

The nuclear regulators provide regulatory advice to RWM about implementing geological disposal.

This report explains what the regulators looked at and the main comments provided to RWM. It also highlights areas for RWM to improve.

RWM is making good progress towards ensuring that it will have the right people, skills and systems in place by the time it applies for environmental permits and a nuclear site licence for a geological disposal facility.

The regulators will make sure that any future geological disposal facility meets their high standards for environmental protection, safety, security, radioactive waste transportation and safeguards.

For more information email the Environment Agency at [geological.disposal@environment-agency.gov.uk](mailto:geological.disposal@environment-agency.gov.uk).

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# News story: The new robot helping clean up Sellafield

The 'Avexis' will help dislodge and clear waste from the Magnox Swarf Storage Silo.

[Watch the robot enter the plant for the first time](#)

It has been developed by Cumbrian firm Forth Engineering with support from the University of Manchester.

The company was launched in 2000 by former Sellafield apprentice Mark Telford.

The Maryport business is now a global specialist in remote tooling, deployment methods, and sensor systems.

Mr Telford said:

Having Sellafield on our doorstep gives a huge advantage.

It's a testbed where we can develop unique skills and technologies.

The site needs innovative technology to undertake engineering tasks in harsh environments underwater.

Successfully deploying our technology at Sellafield means we can then transfer it to other industries like marine and oil and gas which are looking for similar products.

The Avexis is already generating interest from potential clients overseas.

The Magnox Swarf Storage Silo was built in the 1960s to store waste from the UK's earliest nuclear reactors.

It closed in 2000 and has now been prioritised for clean-up by the Nuclear Decommissioning Authority (NDA).

Rebecca Weston, Strategy and Technical Director for Sellafield Ltd, said: "The Avexis is a great example of the supply chain helping us to reduce the UK's nuclear hazard faster, cheaper and more safely.

"And, on top of that, companies are developing products and skills that can be exported all over the world."

The Avexis offers the ability to 'see' inside the silo via cameras attached to its body.

It can also clear away small bits of waste clinging to the silo wall.

Its key feature is its size – it is small enough to fit through spaces of just 150mm space.

It is the first robot of its kind to go from concept to market within five years. At just £10,000 it is also the cheapest of its kind.

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## **Research and analysis: Hazard assessment of chemicals used in oil and gas well development**

This project assessed the properties of a range of chemicals that might be proposed for use in hydraulic fracturing in the oil and gas industry. Of the 31 substances investigated, 27 were found to be non-hazardous. There was insufficient information to make firm recommendations on the other four substances.

The results will be used to help the Environment Agency understand the risks from oil and gas exploration and production, and to ensure that environmental permits include conditions that protect groundwater. Groundwater is an important natural resource. It is used for drinking water supply and provides flow for many of our rivers. Activities that could affect groundwater must be controlled so that they do not cause pollution.

The findings are relevant to anyone interested in unconventional oil and gas operations, including oil and gas companies and planners, members of the public and non-governmental organisations.

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## **Research and analysis: Minimising risks from fluid reinjection to deep geological formations**

This report provides a greater understanding of the issues related to re-injecting water back into the oil reservoir when extracting oil or gas from the ground. It provides recommendations on how to manage risks from commonly used reinjection practices and describes alternatives such as offsite treatment and disposal.

The report will help the Environment Agency to make decisions about the

regulation of the onshore oil and gas industry in England.