



PRESS RELEASE

27 February 2019

New £15 million national isotope facility for earth and environmental science

Five of the UK's leading research institutions — the British Geological Survey (BGS), the Scottish Universities Environmental Research Centre (SUERC), the University of Bristol, the University of Oxford and the Centre for Ecology & Hydrology (CEH) — have joined forces to create a new national isotope facility.

The new facility, which includes laboratories across the UK, will drive advances in the earth and environmental sciences, spanning 4.6 billion years of earth system evolution. Research conducted through the National Environmental Isotope Facility (NEIF) will focus on a wide range of earth processes, from earthquakes and ecosystem function to human evolution and climate change.

NEIF is funded by the UK Research and Innovation and the Natural Environment Research Council (UKRI-NERC), and will streamline how the UK's earth and environmental research community accesses some of the most cutting-edge analytical instrumentation, expertise and training available.

The BGS will oversee the delivery of the new facility to provide a 'one stop shop' of isotope capabilities for the UK research community. Each of the partners brings different specialisms and capabilities to NEIF, combining to provide a suite of capabilities that are world leading in their breadth and depth.

Prof Melanie Leng, director of BGS's Centre for Environmental Geochemistry, said: 'Isotopic science can provide answers to questions about climate change, volcanic hazards and evolution to the oldest aspects of Earth, the Moon and our solar system.'

'NEIF will provide an integrated platform of state-of-the-art isotope and molecular biogeochemistry analytical capabilities and specialisms, delivered by five laboratories across the UK.'



Prof John Ludden, chief executive of the BGS, said: 'The creation of NEIF consolidates the existing facilities and expertise we have in the UK, and will ensure we remain at the forefront of international innovation in this field.'

'NEIF will become a cost-effective platform for internationally competitive UK research, expertise and training in earth and environmental science.'

Dr Gloria Dos Santos Pereira, head of analytical chemistry at the Centre for Ecology & Hydrology, said: 'We are very excited to be part of the new integrated national isotope facility and to continue to provide excellence and leadership in environmental isotope analyses.'

NEIF will collaborate with universities and other research centres to ensure the facility constantly evolves to meet the needs of scientists and industry.

The NEIF team is developing a new website that will enable the science community to see its full capability at a glance. The website should be available by autumn 2019.

Follow NEIF on twitter @isotopesUK and Facebook.

Ends

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Further information from [Dr Adele Gardner](#) (NEIF coordinator) at the British Geological Survey.

Notes for Editors:

What is an isotope?

Isotopes are atoms of elements that contain the same number of protons in the nucleus but differ in the number of neutrons; the more neutrons, the heavier an atom becomes, as well as becoming more unstable and uncommon in occurrence. Both organic and inorganic matter contain elemental isotopes in unique proportions. Biological, chemical and physical processes significantly change the natural ratios of these isotopes and by measuring isotope ratios with



specialist mass spectrometry instruments, we can discover a lot about the global cycle of different chemical elements, as well as food webs, ecosystem dynamics and natural processes.

British Geological Survey

The British Geological Survey (BGS) is a world-leading applied geoscience research centre that is part of UK Research and Innovation (UKRI) and affiliated to the Natural Environment Research Council (NERC). BGS core science provides objective and authoritative geoscientific data, information and knowledge to inform UK Government on the opportunities and challenges of the subsurface. It undertakes national and public good research to understand earth and environmental processes in the UK and globally. The BGS annual budget of approximately £60 million pa is funded directly by UKRI, as well as research grants, government commissions and private sector contracts. Its 650 staff work across the UK with two main sites, the head office in Nottingham and Lyell Centre, a joint collaboration with Heriot-Watt University in Edinburgh. BGS works with more than 150 private sector organisations, has close links to 40 universities and sponsors about 100 PhD students each year. Please see www.bgs.ac.uk.

The Natural Environment Research Council (NERC)

NERC is the UK's main agency for funding and managing research, training and knowledge exchange in the environmental sciences. Our work covers the full range of atmospheric, Earth, biological, terrestrial and aquatic science, from the deep oceans to the upper atmosphere and from the poles to the equator. We coordinate some of the world's most exciting research projects, tackling major issues such as climate change, environmental influences on human health, the genetic make-up of life on Earth, and much more. NERC is part of UK Research & Innovation, a non-departmental public body funded by a grant-in-aid from the UK government.

The Centre for Ecology & Hydrology (CEH)

The Centre for Ecology & Hydrology (CEH) is a centre of excellence for integrated research into land and freshwater ecosystems and their interaction with the atmosphere. CEH is a Natural Environment Research Council (NERC) research institute, part of UK Research and Innovation (UKRI). The Centre's independent, impartial science addresses major societal and environmental challenges: how to protect and enhance the environment and the benefits it provides; how to build resilience to environmental hazards; and how to manage environmental change. Its core expertise is in environmental monitoring, measuring and modelling.

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