

BGS and Heriot-Watt scientists join £20million programme to tackle threats to world oceans

British Geological Survey and Heriot-Watt scientists are research partners in the ambitious, £20 million UKRI GCRF One Ocean Hub, which will transform the global response to the urgent challenges facing our oceans.

From plastic pollution to rising sea levels and acidification to over-fishing, the threats facing our oceans are well-known.

The UKRI GCRF One Ocean Hub will bring together the competing interests and agendas of the individuals, groups and organisations that rely on our oceans to realise a vision of an integrated and sustainable approach to managing their use.

A key priority will be to ensure the knowledge, experiences and rights of those most-reliant upon the oceans, and disproportionately affected by our failure to protect them, are recognised.

The team will set out to uncover the less tangible values of the ocean, and the hidden 'trade-offs' in ocean decision-making.

The goal is to ensure decision-making is based on evidence of risks and opportunities among competing ocean uses.

The five-year programme is being funded by the [UK Research and Innovation's Global Challenges Research Fund](#) and will involve more than 50 partners, including world-leading research centres, development organisations, community representatives, governments and multiple UN agencies.

Paul Lusty, British Geological Survey Ore Deposits and Commodities Team Leader, will focus on the potential value of offshore biological, mineral and freshwater resources, while Dr Andrew Sweetman, Associate Professor at Heriot-Watt University, will investigate the potential impact of extracting these resources on deep-water species, habitats and beyond.

Dr Tracy Shimmield, Director of the Lyell Centre, the BGS- Heriot-Watt collaboration in Edinburgh said: "The UKRI GCRF One Ocean Hub embodies the approach that the Lyell Centre was founded on: using an interdisciplinary approach to build on our scientists' individual and combined expertise in land and marine conservation, geology and geoscience.

"BGS and Heriot-Watt's inclusion in this project is testament to our experience in collaborative, global marine science research programmes. For decades we have been working offshore, from surface to seafloor. We are proud that the Lyell Centre is to be a key part of this innovative project that will explore all facets of the oceans."

Programme lead, [Professor Elisa Morgera](#), Director of the [Strathclyde Centre for Environmental Law & Governance](#), said: "Millions of people all over the world are entirely reliant upon the ocean for food, jobs and transport yet over-exploitation, competing uses, pollution and climate change are pushing ocean ecosystems towards a tipping point.

"The One Ocean Hub will bridge the current disconnects across law, science and policy to empower local communities, women and youth – who are particularly impacted by decision-making – to co-develop research and solutions.

"The aim is to predict, harness and share equitably environmental, socioeconomic and cultural benefits from ocean conservation and sustainable use.

“The Hub will also identify hidden trade-offs between more easily monetised fishing or mining activities and less-understood values of the ocean's deep cultural role, function in the carbon cycle, and potential in medical innovation.”

Professor Andrew Thompson, UKRI Champion for International and Executive Chair of the Arts and Humanities Research Council (AHRC), said: “The sheer scale and ambition of these Hubs is what makes them so exciting. They enable us to deliver a coordinated global response with UK researchers working in partnership with researchers, governments, NGOs, community groups and international agencies across developing countries.

“Each Hub has the potential to transform the quality of life for multitudes throughout the world and safeguard our planet for future generations.”

Within the initial five years of the programme, the team hopes to advance an integrated and inclusive approach to ocean management at a national level in South Africa, Namibia, Ghana, Fiji and the Solomon Islands that enhances the resilience of marine ecosystems and of vulnerable groups.

The Global Challenges Research Fund (GCRF) is a £1.5 billion fund announced by the UK Government in late 2015 to support cutting-edge research that addresses the challenges faced by developing countries. The One Ocean Hub will help to support the UK's international commitment to the Sustainable Development Goals, in particular SDG 14 on the conservation and sustainable use of the oceans.

Notes to editors

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 and www.lyellcentre.ac.uk

The Natural Environment Research Council

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

Heriot-Watt University



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the
Lyell
centre



Heriot-Watt University is a specialist, pioneering university with a reputation for innovative research and highly employable graduates. It has approximately 29,000 students at five campuses based in Scotland, the UAE and Malaysia, and in over 160 other countries through its distance learning programmes.