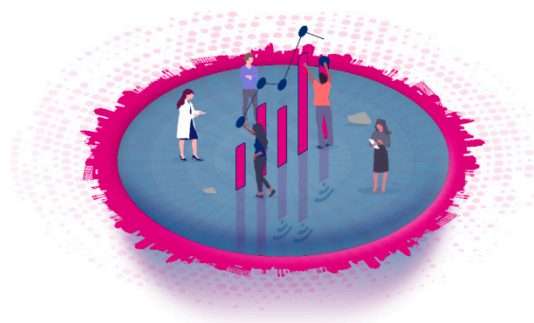


JOINT STATEMENT

Tuesday 30 July 2019

Joint statement on UK Geoenergy Observatories open data

The UK Geoenergy Observatories will be world-leading research facilities, opening up our understanding of the world beneath our feet as never before. Based in Cardiff, Cheshire and Glasgow, they will be scientific test beds in three locations that have very different geological characteristics. Together they will create a 'macroscope of the Earth'. Experiments carried out by earth scientists at the observatories could help address some of the world's biggest energy challenges and understand the potential risks of geoenergy — and how to avoid them.



Recognising their national and international significance, the Natural Environment Research Council (NERC) asked the British Geological Survey (BGS) to create and run these observatories, using £31 million from the Government's 2014 plan to grow UK science and innovation.

The openness and engagement with the public is on a different scale to what has gone before, setting a precedent for the future. NERC and the BGS consulted widely with people in the local area as plans for the observatories were developed. Sense about Science has been working with NERC and BGS to take that open approach even further, to ensure the public is genuinely involved in communication and understanding of this initiative, in the public interest.

Together, NERC, the BGS and Sense about Science have collaborated with members of the public, community groups, environmental campaigners, open data experts and other researchers to co-create a website that sets out the ambitions for the observatories and hosts all the research data, so they are readily available to anyone who wants to see them.

The BGS is launching [this website](#) as data become available from the Cardiff and Glasgow observatories, and as work starts to build the observatory in Cheshire.

NERC, the BGS and Sense about Science are committed to making science open and accessible. The level of debate surrounding geoenergy demonstrates the importance of sound, impartial information being available to the public.

By working with people with a range of perspectives, the hope is that all who visit the website —including people with a casual interest in the observatories, local residents, and specialist researchers — will find it informative and easy to use.

- Alison Robinson, director of corporate affairs at NERC
- Prof Mike Stephenson, executive chief scientist for decarbonisation at the BGS
- Tracey Brown OBE, director of Sense about Science

Ends



For further details:

Cristina Chapman, British Geological Survey, Keyworth, Nottingham, NG12 5GG

Office +44 (0)115 936 3066 Mobile: + 44 (0)7970 229729

Email: crisc@bgs.ac.uk

Notes for Editors

UK Research and Innovation (UKRI)

UKRI works in partnership with universities, research organisations, businesses, charities, and government to create the best possible environment for research and innovation to flourish. UKRI aims to maximise the contribution of each of its component parts, working individually and collectively. UKRI works with many partners to benefit everyone through knowledge, talent and ideas. Operating across the whole of the UK with a combined budget of more than £7 billion, UK Research and Innovation brings together the Arts and Humanities Research Council; Biotechnology and Biological Sciences Research Council; Engineering and Physical Sciences Research Council; Economic and Social Research Council; Innovate UK; Medical Research Council; Natural Environment Research Council; Research England, and Science and Technology Facilities Council.

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. NERC's 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. NERC coordinates 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 British Geological Survey (BGS)

The BGS is a world-leading applied geoscience research centre that is part of UKRI and affiliated to 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.

Sense about Science

Sense about Science (www.senseaboutscience.org) is an independent charity that works to ensure the public interest in sound science and evidence is recognised in public life and policy making. Our public engagement team draws from extensive public networks and over a decade of working with the public on some of the trickiest issues concerning evidence. Our ethos is public led, expert fed — which means engaging early and directly addressing people's questions and concerns.

The UK Geoenergy Observatories

The UK Geoenergy Observatories are establishing new centres for research into the subsurface environment, how natural processes can control resource availability, and how natural resources can be used responsibly for present and future generations. The knowledge they generate will contribute to an understanding of new low-carbon energy technologies both in the UK and



internationally. The £31 million is funded through the UK Government's 2014 £6 billion Plan for Growth of Science and Innovation.

The UK Geoenergy Observatories comprise more than 100 boreholes in three different UK locations: Cardiff, Cheshire and Glasgow. Each observatory is monitoring a unique geological environment affected by a range of past, present and potential industrial activities.

The observatory in Cardiff is looking at the shallow geothermal environment below the city's famous former docklands. Inherited from the Cardiff Harbour Authority, the BGS has repurposed the boreholes to install some 100 sensors looking at the temperature, biology and chemistry of the groundwater.

Cheshire West and Chester Council has just approved (2 July 2019) the observatory for Cheshire. It will comprise 50 boreholes across a 12 km² area, down to 1200 m. The seismic and groundwater monitoring network comprises 1800 sensors capable of generating millions of terabytes of data over a 15-year-period. The seismic network will be so sensitive it will be able to pick up earth movements from the other side of the world.

The observatory in Glasgow is currently being drilled and comprises 12 boreholes across a 4 km² area to characterise the mine workings below Glasgow, which could potentially be a source of sustainable geothermal heat.

Together these sites form a macroscope for the geological environment. Macrosopes are used widely to understand the oceans, atmospheres, wildlife and rainforests. The geological sphere is critical to understanding the natural environment and how it's changing as a result of human activities. These observatories will make us better equipped to deal with environmental change.

Photographs are available from our ftp server: <ftp://ftp.bgs.ac.uk/pubload/bgspress>. These are provided free for media use with copyright acknowledgement.