PRESS RELEASE

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Exploring the world beneath your feet

The UK’s geology can now be explored in the third dimension with the release of free-to-access regional models by the British Geological Survey (BGS). This new suite of geological visualisation models shine a light into the underground, allowing you to learn about your world and see the places you know from a new angle.

The Earth provides the natural resources that make life in the modern world possible: rocks are used to create buildings, bridges and cars as well as silicon chips, smartphones and jewellery. The underground also stores our waste, supports our infrastructure and absorbs drainage. We rely on it, but it can be hard to imagine what the world below ground actually looks like. The role of the BGS is to ‘shine a light’ into the underground and reveal what lies beneath our feet.

The BGS are launching 14 geological visualisation models to provide a unique 3D view of the structures and geological units that make up the upper one and a half kilometres of the UK’s crust. Delivered in a pdf format and available to download from the BGS website, the ‘GV models’ bring to life the 3D nature of our Earth by providing an interactive format to enhance conceptual understanding of the UK’s geology.

The North Wales geological visualisation model.

The GV models allow the user to explore the world below ground in a number of ways — zooming in and out, rotating the view, highlighting different geological sections and querying key information. A detailed legend provides information on each geological unit in the model, such as the age and type of rock, revealing the hidden structure of the underground.

Constructed from the 1:625 000-scale bedrock geology map and the UK3D national fence diagram of cross-sections, the GV models cover England, Wales and Northern Ireland (with models for Scotland planned). They represent a step change in open-access 3D geoscience
resources for the UK and complement other regional information resources the BGS delivers, such as the British Regional Geology (Regional Guides) series and the Regional Summaries.

Dr Katie Whitbread, BGS National Geological Model project manager, said: ‘3D geology opens up the complex world beneath our feet in a way that can be easily understood. The 3D models may help professionals working in industry and environmental regulation, as well as providing tools for public engagement and teaching. But these open-access tools are there for everyone to explore and discover, whatever your interest in the subsurface.’

Regional geological visualisation models displayed with the geological model data in GeoVisionary.

The 3D models have been developed under the BGS National Geological Model project, with financial support from Radioactive Waste Management (RWM), and form part of a wider BGS national programme, funded by a range of stakeholders, to make our science publicly available and accessible to all.

To help us enhance the user experience and improve the future development and design of 3D resources, feedback is encouraged and can be submitted through the BGS enquiries service.

For a step-by-step video guide on how to use the models, click here.

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For further details or to arrange media interviews please contact:

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Notes for Editors

The following are available for interview:

- Dr Katie Whitbread – National Geological Model project manager

For additional information go to: www.bgs.ac.uk

https://www.bgs.ac.uk/research/ukgeology/nationalGeologicalModel/GVModels.html

Photographs are available from our ftp server: ftp://ftp.bgs.ac.uk/pubload/bgspress

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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.