

WELCOME TO BGS MURCHISON HOUSE





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Introduction: aims

raise awareness of BGS activities based in Scotland

• to highlight why geoscience data inputs to strategic planning and policy



What is BGS?

 Public Sector Research Establishment under the parent body NERC, created by Geological Survey Act of 1845

 Mission: to advance geoscientific knowledge by survey and research

to provide professional, expert and impartial advice

to disseminate information

- BGS is a Public Records Office and National Archive (fossil & mineral collections, boreholes, records, maps, etc)
- Offices: Nottingham (HQ), Edinburgh, Belfast, Cardiff, (Exeter)
- BGS in Scotland staff complement = 207, of which 131 are scientific (incl. IT, records etc)

Accreditations: BSI ISO9001, ISO14001; IiP; IFT; (ERMS)



BGS in Scotland



www.bgs.ac.ul



2005-2010 Programme: filling the 'knowledge gap'





UKAEA Dounreay

assessment

Brownfield

Environmental surveys

www.bgs.ac.ul

Baseline H₂O chemistry

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Glasgow, mining



Digital 'mapping' GIS-based workflow

Pre-fieldwork desk study Existing geological mapping is digitised and overlain onto Digital Terrain Models and aerial photography. New interpretations are added and targets for field checking are identified

Geological map draped on Digital Terrain Model, Central Wales



Digital field data collection New field data is captured digitally using 'ruggedized' tablet computers, including refinements to the maps and more information on environmental hazards and resources

Digital data capture in the field on tablet PC

GIS compilation The new geological interpretation is completed and validated using GIS software on desktop PCs. Printed maps and digital data showing hazard and resource-related themes are generated on demand from the GIS

Digital geological map compilation, Sheffield







"LithoFrame UK" - the new '3D map'



- New 3D geological models at local, regional & national scales
- Attributed with physical & chemical properties, environmental & resource information
- Will replace the paper geological map as the primary knowledge base for UK geology
- GIS-based multiparameter data sets of land surface





•Virtalis StereoWorks visualisation system one of the first in Europe

•3D subsurface data models

-tool for geoscience communication

-for scientists, council planners, utility providers, landfill managers, minerals & energy industries









BGS interaction with Scottish Government

- SEERAD: FMD, Nitrates, WFD, soils, geodiversity
- Tourism, Culture & Sport: Built Heritage
- Transport: Geohazards (landslides), geotechnics
- Planning: Minerals, National Planning Framework
- SE Agencies: SEPA, SNH, Historic Scotland, MLURI
- Local government: numerous, GCC

Work mostly carried out on a contractual or co-funded basis as BGS receives no direct funding from SE