Developing geoscientific careers at the British Geological Survey

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The British Geological Survey (BGS) is the UK’s national centre for earth science information and expertise. We are also probably the UK’s largest employer of geoscientists working in a domestic context. Our scientific programme is very broad and offers a rich variety of careers to geoscientists of all disciplines. This programme is regularly and independently reviewed by a panel of international experts drawn from across our stakeholder community, the Science and Management Audit (SMA). A recent SMA review confirmed the excellence of BGS’s programme, awarding the highest possible rating to our strategic science. A key finding was that the BGS leads the world in delivering digital geoscientific data and information. Delivering this scientific programme and maintaining our competitiveness requires the recruitment of high quality geoscience graduates.

The continuing development of our geoscientific programme helps to define future recruitment needs and opens up new career opportunities with the BGS. Next year we will embark on a new programme to take us to 2010. One of the key strands of the new programme will be to accelerate the move from 2D surveying to 3D and 4D modelling. There will also be an increased emphasis on water management, near-surface geoscience and the physical properties of rocks. A new area of work for BGS will be sustainable soil management. We will also be looking to improve links with universities to strengthen our collaborative research.

All these new developments will provide challenging opportunities for our geoscientists. After all, BGS geoscientists are engaged in work that is relevant to the issues facing Britain today and can have a real impact of problems of global importance. Our research is tackling problems such as climate change; the sustainable management of energy and natural resources; rural economies, land use and land quality; Earth’s life support systems; and international development. In the past three years we have recruited over a hundred geoscientific staff to help us meet these challenges.

For instance, one of our recent recruits who joined about two years ago and is an environmental geochemist by training, is researching heavy metal dosage in humans for her core research. But she has already spent several months on Montserrat monitoring gases to help predict the next eruption. And she has also visited Tanzania to investigate the take-up of mercury in fish, and thence humans, resulting from its use locally in gold mining. Another geologist, who carried out his doctoral research in Newfoundland, is principally engaged in the geological mapping of turbidite terrains in the Welsh Basin. However, he has also spent a number of three-month stints in Mauritania on mapping and mineral exploration projects funded by the World Bank, where he had to survive major Saharan sandstorms.
The calibre of recruits that have joined the BGS over the past three years in our ‘new blood’ recruitment drives has been very high, reflecting the high standard of geology degrees in the UK. Nevertheless, in recent years, we have experienced difficulties recruiting graduates with skills in some specific areas. These include applied mineralogy and petrography and specialisations such as radiochemistry, geomicrobiology and environmental geophysics. In other areas, such as exploration geophysics, while there are plenty of well-trained graduates, we are not always able to compete with the salaries offered in industry.

In recent years we have found that many of our recruits have not received training in field skills to the level that we can deploy them in geological terrains outside of their specialist field. Others may have dropped fieldwork during their postgraduate research and become ‘rusty’. We believe these field skills are essential both to our business needs and to the general employment prospects of postgraduate students, whether in industry or research. There is a real concern that geologists of the future will have had little field experience by the time they graduate and that the UK will lose its long-standing reputation of producing field geologists with excellent observational and interpretational skills. We have recently proposed to establish a School of Field Geology, a ‘centre of excellence’, to support the teaching of geoscience field mapping in universities.

Biography

After gaining a PhD in Sydney in 1972, David Falvey worked for Shell, and taught at The University of Sydney. He became marine Chief of the Australian Geological Survey in 1982. He headed the international Ocean Drilling Program from 1994, and became BGS Director in 1998. He has an honorary DSc from Nottingham Trent University and is a Companion of the Chartered Management Institute.