

## **RAE Consultation – Response by Committee of Heads of University Geoscience Departments (CHUGD)**

### **Panel configuration**

CHUGD was pleased to see that the Earth Sciences sub-panel has been grouped with Physics, Chemistry and Metallurgy and Materials (panel E). We feel this recognises that the research earth scientists undertake is firmly rooted within the physical sciences. It also presents a threat, since the average research income per earth scientist is significantly smaller than that of the other researchers with which we have been grouped. The Chief Executive of NERC noted that earth scientists request and are awarded on average smaller research grants, but make much heavier use than other groups of centrally-provided services and facilities. It is essential that this difference in the way our research is funded is recognised by the panel. An analogy might be the difference in funding levels of pure and applied mathematics.

A major change is not only, as noted in the consultation document, the splitting of Earth and Environmental Sciences into two sub-panels, but the placing of these two sub-panels in different main panels. This generated considerable discussion at CHUGD's recent meeting at which the consultation document was discussed. Our conclusion was that Environmental Sciences belonged in panel E with Earth Sciences, but that a separate Environmental Studies Unit of Assessment concerning predominantly social science research methodologies could usefully be added to panel H. Environmental Sciences includes meteorology and climate studies, oceanography, ecology, low temperature geochemistry and biogeochemistry, volcanology, and natural hazards. It shares many research approaches with Earth Sciences, and is broadly cognate with it, Physics and Chemistry (though also with some branches of the Biological Sciences). The research methods and results of most environmental scientists should be understandable by one of the other sub-panels in panel E, but almost certainly not by those in panel H. CHUGD feels both the Earth and Environmental Sciences communities would be at a disadvantage if the two sub-panels were reporting to different main panels (paragraph 14) – these panels need to share deliberations and information. In particular, both groups are so broad that they will need large colleges of assessors (paragraph 29), which could usefully share some members – perhaps even to the extent that a single college could serve both sub-panels. It would then be nonsensical for them to be responsible to different main panels. Environmental Studies, on the other hand, is usefully grouped with the other sub-panels in panel H, sharing research approaches with them.

Whilst CHUGD recognises the rationale of using essentially discipline-based units of assessment (paragraph 9), RAE2008 needs to be aware of the breadth covered by both Earth and Environmental Sciences. The emphasis of government and the NERC (the main, but by no means only, research council funding research in these areas) has been on ‘joined-up’ research tackling problems of societal relevance, such as climate change. Many HEIs have responded to this by restructuring to bring together academics in related disciplines into groups able to tackle these problems. The necessity of disentangling these new groups to submit to many sub-panels in different main panels, especially where the unit of resource differs between them, is likely to stifle the innovation generated, and will make it difficult to put the research such groups do into context when preparing submissions (the equivalents of RAs 5 and 6 for RAE2008).

The issue of cross-disciplinary work and how that is to be assessed is thus crucial for Earth and Environmental Sciences. This was clear from the 2001 RAE for which panels 20 and 21

had a very large number of Specialist Advisors. For RAE2008 it will be vital that the colleges of assessors (paragraph 29) include sufficient experts for all work submitted to the sub-panels to be considered fairly. The procedures and work schedule for the RAE must be such that those individuals, groups or submissions that need to be assessed either by other sub-panels or by the college of assessors are identified from the start of the process, in order for sufficient informed responses to be received by the sub-panels when they start to consider gradings. We appreciate that this is not a matter that is open for this consultation, but would like the matter to be noted as we consider that the operation of the assessment of cross-disciplinary work is crucial for the proper operation of the Earth and Environmental Sciences sub-panels.

We were asked (paragraph 12) to comment on the proposal that there be a single education sub-panel. Those researching into Earth Sciences HE form too small a group to justify a sub-panel in their own right; we suspect the same is true for many other disciplines. The extra nuances due to Earth Sciences making extensive use of fieldwork for teaching (with knock-on implications from Health and Safety, Disabilities etc legislation) has convinced them they would be better submitting to the Earth Sciences sub-panel rather than an Education sub-panel. Unfortunately, they are probably at a disadvantage whatever they choose. CHUGD is unable to offer a solution to this problem.

### **Amendments to list of nominating bodies**

Please note that our correct title is Committee of Heads of University Geoscience Departments; ‘University’ is missing in Annex B.

We understand the Geological Society of London was inadvertently omitted as a nominating body, having been on the list for the past RAE, and that this has been rectified. They are a Learned Society covering a significant part of the scope of panels 18 and 31. Other relevant Learned/Professional Societies are the Institution of Quarrying, the Institute of Petroleum, and the Institute of Materials, Minerals and Mining (their scope also includes panel 27).

We also propose that the British Geological Survey be added. They conduct research independently, in collaboration with the HE sector, and are ‘consumers’ of HE research. They also employ a significant number of HE graduates. They fall within the Natural Environment Research Council’s remit. We don’t understand why they have been omitted when much smaller bodies like NERC’s Plymouth Marine Laboratory are included. With similar interests to the Plymouth Marine Laboratory, we suggest the Scottish Association for Marine Science be added.

Members of the Petroleum Exploration Society of Great Britain (PESGB) also ‘consume’ and fund HE research, and employ HE graduates. CHUGD proposes they be added to the list.

Government agencies that should have been listed as nominating bodies include the Environment Agency, the Countryside Council for Wales, Scottish Natural Heritage, and English Nature. Again, they undertake, utilise and apply, and fund research.

### **Addresses of additional bodies to be consulted**

Institution of Quarrying, 7 Regent Street, Nottingham NG1 5BS  
Institute of Petroleum, 61 New Cavendish Street, LONDON W1M 8AR

Institute of Materials, Minerals and Mining, 1 Carlton House Terrace, London SW1Y 5DB  
British Geological Survey, Kingsley Dunham Centre, Keyworth, Nottingham NG12 5GG  
PESGB, 2nd Floor, 41-48 Kent House, 87 Regent Street, London, W1B 4EH  
Scottish Association for Marine Science, Dunstaffnage Marine Laboratory, Oban, Argyll,  
PA37 1QA  
Environment Agency. No address available from website, but contactable through  
<http://www.environment-agency.gov.uk/>  
Countryside Council for Wales, Maes-y-Ffynnon, Penrhosgarnedd, Bangor, Gwynedd LL57  
2DW  
Scottish Natural Heritage, 12 Hope Terrace, Edinburgh EH9 2AS  
English Nature, Northminster House, Peterborough PE1 1UA