Absences of chair and declaration of interests

1. A deputy chair has been elected from the outset, to cover any planned or unforeseen absences of the chair of Main Panel E. The boundaries of the deputy chair’s role are to replace the main panel chair in the event of their absence from the main panel, and to assume the chair during a meeting where the main panel chair is asked to withdraw due to a conflict of interest.

2. Where the chair and any members of the main panel declare a current or recent major interest in an institution, they will withdraw from discussions. The formal note of discussion provided by the secretary shall be the only part of those discussions to which they are party.

3. The main panel will declare minor interests, to the secretariat, in line with guidance provided in Annex 4, and the chair will determine appropriate methods for handling any conflicts of interest arising.

How the main panel will work with its sub-panels

4. The main panel expects a collaborative working relationship with and between its sub-panels to facilitate an iterative process. The main panel will:

   a. Provide leadership and guidance to its sub-panels on their approaches to the assessment process and establishment of their criteria and working methods.

   b. Ensure that assessment is completed within given timescales and in accordance with the funding bodies’ policy and operational framework.

   c. Work with sub-panels during the criteria-setting and assessment phases to ensure consistency, and adherence to, equal opportunities guidance.

   d. Endorse the criteria for assessment and working methods of sub-panels, and ensure that sub-panels complete their assessments in accordance with their published criteria and working methods.

   e. Based on the work of the sub-panels, endorse quality profiles for all submissions.
5. Where sub-panels raise questions or issues of general interest to the subjects within Main Panel E or more widely, these will be communicated to the chairs of the other sub-panels (and to other main panels where appropriate). The main panel will oversee the handling of any such common issues.

6. The main panel will receive the minutes of all sub-panel meetings. Sub-panels will receive reports on the meetings of the main panel.

7. The chair of the main panel may attend some meetings of Sub-panels 17, 18 and 19 during the assessment phase.

Consistency of quality levels

8. Consistency between the sub-panels in applying quality levels will be assured by dialogue at main panel level at appropriate times throughout the RAE2008 process.

9. The following differential weightings of the components of the assessment will be applied by the sub-panels under Main Panel E:

Sub-panel 17:
- research outputs 65%
- research environment 20%
- esteem indicators 15%.

Sub-panels 18 and 19:
- research outputs 60%
- research environment 20%
- esteem indicators 20%.

10. Taking prescribed minimum weightings into account and given the primacy of expert review in the process, a significant weighting for research outputs is deemed appropriate by the main panel, while giving reasonable weighting to environment and esteem so as not to be overly retrospective. UOA 17 has significant common ground with UOA 32 (Geography and Environmental Studies) and Main Panel E has agreed that the weightings for the three components of the assessment should also reflect the interactions between these two UOAs.

Research environment

11. Data on research students, studentships and research income will be assessed under the component of research environment, and this will be applied consistently across the disciplines of Earth Systems and Environmental Sciences, Chemistry and Physics. Research income (as per the definition of research income in RAE 03/2005 ‘Guidance on submissions’) will be regarded as a measure of peer judgement in relation to previous achievements and promise. The use of funds to improve physical infrastructure and facilities (eg, the Joint Infrastructure Fund, Science Research Investment Fund) will also be considered by sub-panels.

12. Sub-panels specify the measures of quality of the environment in their criteria and working methods. Sub-panels expect submissions to include information on structures which are coherent for their discipline.

Research esteem

13. The research esteem component of the quality profile will be used by sub-panels to assess the esteem of individuals submitted, particularly taking account of the relative career stage of staff submitted. The esteem of a department will be assessed under the environment component of the profile. Sub-panels specify in their criteria and working methods the measures of esteem appropriate to their discipline.

Elements of variation in the criteria statements

14. The development of the criteria and working methods of the sub-panels has been undertaken in consultation with the main panel. The main panel expects that the criteria adopted by its sub-panels will reflect broadly the degree of similarity in their approaches to research. Any variations in the criteria statements and working methods of sub-panels have been considered by the main panel to ensure that they are in keeping with the extent to which research approaches and methods vary between the
disciplines covered. The key elements of variation in the criteria statements are:

a. The extent to which external advice will be used, according to the breadth of the discipline and the ability of the sub-panel to assess appropriately all outputs submitted to it.

b. The weighting given to research outputs and esteem indicators, as specified at paragraph 9.

c. The assessment of outputs and esteem by research group (Physics) or by individual (Earth Systems and Environmental Sciences, Chemistry), as the most appropriate methodology in line with institutional structures of research.

d. The working methods for agreeing a quality profile for outputs, and the use to be made of the ‘Other relevant details’ field in RA2.

e. The acceptability of co-authored or multi-authored outputs from the same department, in line with the extent to which such outputs are common within the discipline.

f. The structure by which departments should submit their measures of esteem.

g. The indicators for esteem and environment which will be taken into account, in line with the specifics of the different disciplines.

Methods for ensuring consistency

15. The main panel expects sub-panels to set criteria and working methods with the principles of equity and consistency uppermost in mind. Sub-panels will have a common conception of the standard defined by each quality level (as set out below at paragraphs 20-24), and their methods will take account of all the components of a submission and a range of indicators.

16. Where sub-panels have generic issues, these will be communicated to the chairs of the other sub-panels under Main Panel E (and those under other main panels if appropriate). The main panel will oversee the handling of any such common issues.

17. The main panel will convene prior to the consideration of submissions in 2008 to ensure correct interpretation of criteria that are common across sub-disciplines, thereby avoiding undue variation. The chair of the main panel may request that the sub-panels under Main Panel E discuss, at the start of the assessment phase, the methodology for consideration of outputs which are to be cross-referred, with appropriate members of sub-panels handling cognate disciplines. This is to ensure common practices are adopted.

18. The main panel will receive the minutes of all meetings of its sub-panels.

Range of indicators of excellence

19. The assessment of the quality of research will be based upon the main panel and its sub-panels’ professionally formed judgement, expertise and knowledge of the associated subject areas, and informed by all the information presented in each submission. In determining the range of indicators of excellence to be used by sub-panels in making assessments, the quality of research is to be used as the primary criterion. Sub-panels will consider:

a. The quality of research as judged by research outputs, with no discrimination between forms of output.

b. The extent of research and its quality, as indicated by the activity of research students, research assistants, post-doctoral workers, visiting academic and industrial researchers, and others who are deemed to add value to the research output.

c. Evidence of support from external funders, as indicated by research income from Research Councils, industry, charities, international agencies and other funding sources.

d. Evidence of the vitality of a school or department, as demonstrated by its research strategy, supporting environment, and achievements over the assessment period.

e. Evidence of national and international peer recognition.

Research outputs

20. In assessing work as being 4*, ie, ‘world-leading in terms of originality, significance and rigour’, the sub-panels will expect to see evidence of some of the following characteristics:

• agenda setting

• research that is leading or at the forefront of the research area
• great novelty in developing new thinking, new techniques or novel results
• major influence on a research theme or field
• developing new paradigms or new concepts for research
• major changes in policy or practice with respect to applied research.

21. In assessing research as being 3* the sub-panels will expect to see evidence of some of the following characteristics:
• makes important contributions to the field at an international level
• contributes important knowledge, ideas and techniques which are likely to have a lasting impact, but are not developing new paradigms or leading to fundamental new concepts
• for applied work, a contribution is judged to have led to significant change to policies or practices.

22. In assessing research as being 2* the sub-panels will expect to see evidence of some of the following characteristics:
• provides useful knowledge to the field, but lacks the potential for lasting impact
• involves incremental advances which might include new knowledge or model calculations, using established techniques or approaches, which conform with existing ideas and paradigms
• has influence outside the UK
• for applied work, has influenced policy or practice.

23. In assessing research as being 1* the sub-panels will expect to see evidence of some of the following characteristics:
• useful but unlikely to have more than a minor impact in the field
• influential at a national level
• minor influence on policy or practice.

24. Research will be assessed as Unclassified if it is considered to fall below the quality levels described above or does not meet the definition of research used for the RAE.

25. Sub-panels will state which types of research outputs they anticipate receiving (this should not be regarded as an exhaustive list), and will make it clear that all forms are assessed on an equal basis. All sub-panels will expect to receive a maximum of four outputs per individual. However as the RAE concerns quality not volume, and takes into account equal opportunities legislation, it is accepted that the maximum and normal expectation of four outputs may not be possible in all circumstances. Sub-panels will state how they will assess research outputs and what proportion will be considered in detail. It is anticipated that this will vary across disciplines.

26. Sub-panels will provide guidance to departments on how they might use the 'Other relevant details' field in RA2 to provide useful, additional information on outputs. The criteria of sub-panels will not ask for citation data or journal impact factors to be provided for all submitted outputs.

27. Sub-panels will specify whether they generally expect to receive different items of research output for each researcher submitted.

28. Sub-panels will specify how they will judge the contribution of new entrants to higher education research and early career researchers. Submissions containing new entrants and early career researchers will not be disadvantaged, and their presence should be highlighted by departments.

29. All sub-panels wish to be informed by departments of other UOAs to which they have submitted.

Research environment

30. Sub-panels will request forward-looking strategies for a six-year period from 2008.

Research esteem

31. Measures of esteem will be considered as appropriate to an individual’s career stage.
Multidisciplinary and interdisciplinary research

32. The main panel recognises the diverse nature of the disciplines it covers, and regards many aspects of research in those areas as naturally interdisciplinary or multidisciplinary. The main panel and sub-panels welcome interdisciplinary and multidisciplinary submissions.

33. Sub-panels may seek specialist advice or cross-refer research to other UOAs as appropriate to assess interdisciplinary or multidisciplinary research at the boundaries of their UOA, or where they need to supplement their expertise. Departments may also request cross-referral within the terms laid down in RAE 03/2005 ‘Guidance on submissions’.

34. The general standards of excellence defined for the RAE by the quality levels will be expected to be applied equally to research in new interdisciplinary areas and established disciplines.

Applied research and practice-based research

35. In the assessment of applied research, the main panel expects sub-panels to request departments to provide an explanation in the ‘Other relevant details’ field in RA2 of significant use or application of the research submitted for assessment.

36. In the assessment of esteem and environment, sub-panels will consider the extent to which staff interact with bodies external to the HE sector.

37. Research on the teaching of any of the disciplines covered by Main Panel E will be considered initially by the relevant sub-panel then cross-referred to UOA 45 (Education) where necessary, with a request for a judgement to be returned to the relevant sub-panel. The final assessment will lie with the sub-panel which originally received the submission.

38. All sub-panels will augment their expertise by consulting with external specialist advisers where appropriate. In UOA 17, Earth Systems and Environmental Sciences, this will be in the majority of areas. In all cases, the advisers’ judgements will inform the sub-panel’s overall assessment of research outputs.

Individual staff circumstances

39. In assessing submissions, the main and sub-panels will normally expect the number of outputs listed for staff to be proportionate to the time they have had available for research. While the panels will consider each case on its own terms, they will normally accept a reduction in the number of submitted outputs to take account of the circumstances described in paragraph 39 of the generic statement.

40. In addition to the circumstances described in the generic statement, the main and sub-panels would also wish to take account of the following circumstances:

a. Difficulties in undertaking field work due to particular circumstances (UOA 17).

b. Limitations on travel or other such factors, due to personal circumstances (UOAs 18 and 19).

c. As described above, all specific circumstances will be considered on a case by case basis, but the panels note that given publication patterns in these disciplines it is anticipated that the vast majority of early career staff will be able to submit four outputs for assessment.

41. Sub-panels’ criteria and working methods provide information on how submitted staff who have faced or are facing such circumstances during the assessment period will be handled. In all cases, sub-panel processes take appropriate account of the work of researchers whose volume of research output may have been limited for reasons covered by equal opportunities legislation and other personal circumstances. Sub-panels will take account of requirements for laboratory-based research where health and safety restrictions are imposed on pregnant and nursing women which may have prevented them from undertaking some types of research during the assessment period.

42. Departments are encouraged to use section RA5b (which will be treated confidentially) to provide supporting information on the impact of
specific circumstances on an individual’s research. Detailed personal histories will not be required by sub-panels, but commentary on the recovery of scientific momentum, and information on the approach taken by the department in such circumstances, will be considered by sub-panels in the assessment of research environment.

43. In making assessments, sub-panels will consider only the information provided to them in the submissions they receive.

Panel observers

44. Research Councils UK (RCUK) observers will attend main panel meetings, and may be invited to attend meetings of sub-panels on the agreement of the main panel chair and the appropriate sub-panel chair. RCUK will be represented by named individuals from the Engineering & Physical Sciences Research Council and the Natural Environment Research Council; requests for input from other Research Councils will be sent, via the main panel chair, to the RAE team. The main panel may ask observers to provide advice on matters such as the dual-support system of funding. The role of an observer will be passive and distinct from that of a panel member.