### **Research Assessment Exercise 2014**

## <u>Panel 07 – Built Environment</u> <u>Specific Criteria and Working Methods</u>

(February 2014)

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## **Introduction**

- 1. Panels of the Research Assessment Exercise (RAE) 2014 have formulated panel-specific guidelines to provide advice on the criteria and working methods in assessing submissions to the RAE 2014. This document sets out the specific criteria and working methods that the Built Environment Panel will apply. It should be read alongside the General Panel Guidelines. In areas where the panel-specific criteria do not provide further information, this is because the provisions in the General Panel Guidelines prevail and apply to the Panel without further elaboration or amplification.
- 2. The panel-specific guidelines may also assist institutions and staff members with the process of arranging submissions for assessment. These guidelines do not replace or supersede the requirements for submissions that are set out in the Guidance Notes for the RAE 2014.
- 3. The RAE 2014 is an expert review exercise. Panel members will exercise their knowledge, judgement and expertise to reach a collective view on the quality profile of research.

### **Section A: Submissions**

#### **Cost Centres under the Panel**

- 4. The Built Environment Panel acknowledges the mapping of cost centres in Appendix B of the General Panel Guidelines, also in Appendix F of the Guidance Notes. The Panel covers the following cost centres:
  - 25 civil engineering (incl. construction engineering & management)
  - 27 architecture
  - 28 building technology
  - 29 planning
  - 30 surveying, land
  - 31 surveying, other

### Weighting the Elements of the Assessment

- 5. The Panel will attach the default weighting to the three elements of the assessment as follows when determining the overall quality profile for each cost centre:
  - Research outputs: 80%
  - External competitive peer-reviewed research grants: 10%
  - Esteem measures: 10%

## **Research Strategy Statements**

- 6. Following paragraphs 2.15, 2.16 and 3.2 of the Guidance Notes and paragraph 15 of the General Panel Guidelines, Research Strategy Statements submitted by each institution and individual cost centres of each institution will provide contextual information for the Panel when assessing the submissions.
- 7. The Panel would like to emphasize that it recognizes the range of research from theoretical to applied.

# **Output Types**

8. The Built Environment Panel will consider the eligibility of research outputs as described in paragraph 18 of the General Panel Guidelines and paragraphs 5.8 to 5.12 of the Guidance Notes.

- 9. The Panel will assess the quality of each eligible item on its own merits and not in terms of its publication category, medium or language of publication. The Panel will study each item in detail and will not assess outputs mechanistically according to the medium of publication. The Panel recognises that there can be work of the highest quality in various output forms, and no distinction will be made between types of output submitted nor whether the output has been made available electronically or in a physical form.
- 10. Forms of research outputs that are admissible and specifically relevant to the Built Environment Panel include the following examples. This should not be regarded as an exhaustive list. Equally, there is no implication of priority or importance in the ordering of examples in this list:
  - books, book chapters and research monographs
  - published conference papers
  - new materials, devices, products and processes
  - patents awarded
  - published papers in peer-reviewed journals
  - software, computer code and algorithms
  - standards documents
  - portfolio of design, buildings and other built-environment and practice-based output. Provisionally, built environment portfolio submissions should consist of an explanatory presentation of the building, design, or intervention, in an easily handled digital form, sufficient to allow an expert assessor to understand the output and to make a judgment of its research contribution
  - technical reports
- 11. Research outputs will be assessed for the quality of original research they include. The Panel will accept the submission of review articles only where they contain a significant component of unpublished research or new insight. Such outputs will be judged only on their original research or novelty of insight.

## **Co-authored/Co-produced Outputs**

12. The Panel confirms the principles on assessing co-authored/co-produced research outputs as set out in paragraphs 31 to 33 of the General Panel Guidelines.

### **Double-weighted Outputs**

13. Paragraphs 29 and 30 of the General Panel Guidelines and paragraphs 5.13 to 5.14 of the Guidance Notes indicate that in exceptional cases an academic may request that outputs of extended scale and scope be double-weighted in the assessment. This Panel recognizes that there may be items of such scale and scope and will consider items submitted for double weighting in line with the General Panel Guidelines.

### **Section B: Assessment Criteria: Research Outputs**

### **Criteria and Quality Levels**

- 14. Panel members will use their professional judgement with reference to international standards in assessing research outputs.
- 15. In assessing outputs, the Panel will look for evidence of originality, significance and rigour, and will grade each item into one of the five categories of quality level as set out in paragraph 19 of the General Panel Guidelines. The Panel will use the generic description of the quality levels as set out in paragraph 20 of the General Panel Guidelines.

## **Additional Information on Outputs**

16. Other than the data as specified in the Guidance Notes, and unless specifically required by the Panel, no other information should be provided, and the Panel will take no account of any such information if submitted.

#### **Metrics**

17. While the Panel will study each item in detail for the assessment, the Panel may informally use citation data to inform its consideration of individual items. However, such data will not be used in any algorithmic or deterministic way for the evaluation of research quality. The Panel is aware of the limitations of citation data, in particular their variability within as well as between disciplines, and the need to consider that some excellent work takes time to achieve its full impact.

## <u>Section C: Assessment Criteria: External Competitive Peer-reviewed</u> Research Grants

18. This Panel will review the completed proforma on external competitive peer-reviewed grants and the listing of the competitive peer-

reviewed grants as described in paragraphs 7.2 to 7.4 of the Guidance Notes.

- 19. Pursuant to paragraphs 45 to 47 of the General Panel Guidelines, factors relevant to the Panel's evaluation of the submitted data are as follows:
  - a. The value of research grant for staff member as an important indicator.
  - b. That no source of income will be regarded as having higher weighting than another.
  - c. The overall balance of funding sources.
  - d. The trajectory of funding (relative growth or decline through the period) as an important demonstration of vitality.
  - e. The total number of grants as well as the total value of grants.
  - f. That some areas of research within its remit are less resource-intensive than others.
  - g. That other types of non-competitive non-peer-reviewed external incomes (e.g. Government tenders, industrial funding, etc.), which are potentially significant as a source of funding for applied research in the Built Environment area, would be included in the "Esteem Measures" instead.

## **Section D: Assessment Criteria: Esteem Measures**

- 20. This Panel will assess esteem measures according to the generic criteria in paragraphs 7.5 and 7.6 of the Guidance Notes. Esteem measures should be recognition conferred by an external body. They may include, but are not limited to, editorship of academic journals, research-based awards, honours or prizes, significant grants or donations for research, government consultancy awarded through tender process which are not competitive or peer-reviewed (e.g. industry research grants), fellowships, keynotes, etc.
- 21. The following might be supplementary for Built Environment portfolio outputs:
  - Design awards
  - Critical appraisals/reviews
  - Professional research awards
  - Competition success, etc.

- 22. The Panel would particularly welcome the following research group or cost centre level esteem indicators:
  - Exemplars of collaborations with industry or other end-users of research, including in particular long-standing partnerships and knowledge transfer
  - Exemplars of commercialisation activity in terms of patents awarded, creation of spin-outs or other forms of wealth creation
  - Exemplars of the impact of research activity on policy, practice and the quality of life.
  - Industrial and government funding for applied research that is not otherwise reported in "External Competitive Peerreviewed research Grants"
- 23. This Panel will make an overall judgement about the indicators of esteem relating to individual academics and groups according to paragraphs 48 to 50 of the General Panel Guidelines.

### **Section E : Working Methods**

#### **Allocation of work**

24. The Convenor, consulting the Deputy Convenor and other panel members as appropriate, will allocate work to members and if necessary external reviewers in light of their expertise and workload, and taking into account any potential conflicts of interest. All panel members will take account of the requirements of the General Panel Guidelines to ensure that the exercise is conducted fairly and transparently.

## **Use of Sub-Groups**

25. The Built Environment Panel does not intend to establish subgroups.

#### **Assessment Process**

26. Panel members will examine the submitted outputs in detail, and put forward a recommendation to the panel for a collective decision on the final grading. To ensure fairness and consistency, each research output will be assessed in detail by at least two members, one of whom should be a non-local member to the extent possible. Similarly, for those cost centres which are only housed at one or two local institutions, submissions should

be assigned to at least one non-local member in order to ensure fair and impartial assessment.

27. Subject to conflicts of interest, the assessment of external peerreviewed research grant and esteem measures will be undertaken by each member of the Panel and grading will be a collective decision of the Panel.

#### **External Reviewers**

28. This Panel will follow the procedure in paragraph 42 of the General Panel Guidelines when referral to external reviewers becomes necessary for panel assessment. External reviews may be sought for foreign language outputs and niche research work where the panel needs further expertise.

#### **Cross Referral**

- 29. This Panel will follow the process described in paragraphs 37 to 41 of the General Panel Guidelines when initiating and assessing cross-referrals by another panel or by cost centre(s) within the Panel.
- 30. Generally, research on pedagogy and education issues submitted to this Panel will be assessed by panel members or external reviewers with expertise in pedagogy. Exceptionally, such work may be cross-referred to Panel 13, Education.
- 31. Cross-panel referral is envisaged in areas such as: environmental engineering (to Panel 06 Engineering Panel) and architectural design (to Panel 12 Creative Arts, Performing Arts & Design).

#### Trial Assessment

32. Following paragraphs 67 and 68 of the General Panel Guidelines, the Panel will conduct a trial assessment of a sample size intending to be 12 outputs carefully selected across the cost centres of the Panel and output types, to reflect the full range of perceived quality. These will be assessed by all panel members and discussed to calibrate the procedures. The trial assessment will also cover the general principles for evaluating external competitive peer-reviewed research grants and esteem measures.