

RCUK Efficiency and Effectiveness of Peer Review Project

Response from The Royal Academy of Engineering to the Research Councils

1. Introduction

The Royal Academy of Engineering is pleased to respond to the Research Councils' consultation on the options for change identified as part of the *Efficiency and Effectiveness of Peer Review Project*. This response has been compiled from a number of contributions from Fellows of the Academy, all of whom hold senior positions at higher education institutions or research centres. Many of the Fellows consulted were also part of a working group which was formed to provide a response to the DfES consultation on the reform of the Research Assessment Exercise.

2. The Academy is content for its input into this consultation to be made public and would be pleased to provide supplementary evidence if this would be helpful.

3. Consolidation of Research Grant Funding

This approach is welcomed in general and, to some extent, engineering is already moving in this direction with EPSRC's platform grants, portfolio partnerships and Innovative Manufacturing Research Centres, all of which have proved popular. However, while there are advantages to be gained from larger grants awarded to research groups there are also a number of potential pitfalls which must be avoided, as indicated below.

4. It is important that a certain amount of flexibility is built into the system to allow for growth within the period of the grant. New members joining a group will effectively lower the unit of resource available to each member of the group while the new member should not be expected to bid in responsive mode outside of the group as the current funding might have a negative effect on their application.
5. It should also be recognised that managing large institutional research grants internally is not straightforward and carries a significant administrative burden which is an extra overhead that must be accounted for. Continuity of funding is also important and it should be uncommon for a group to lose all their funding after any particular period as good researchers do not become bad researchers overnight.
6. Overall, this approach has merit provided the allocation method is open and peer reviewed, annual reviews are carried out which have real teeth and growth is built into the system.

7. Institutional-level Quotas

This approach is not supported as it is felt that too much emphasis would be placed on the institution's agenda and that potentially valuable research might not receive funding due to it being lower down on the institution's list of priorities.

8. Controlling Resubmissions/Recycled proposals

Resubmission of proposals is an issue which requires a degree of balance. There are situations where resubmissions should be allowed, for example, where a proposal receives especially positive comments from the referees but is turned down because of lack of available funds. In this case it would seem unnecessary for that proposal to be made to restart the process again from the beginning, however, given the large number of unfunded proposals this should be the exception rather than the rule with only particularly high calibre and timely proposals being allowed to resubmit.

9. Also, proposals which have previously been rejected should only be accepted for resubmission if the proposal is substantially rewritten and all issues raised have been addressed.

10. Greater Use of Outlines

There is general support for this system which is seen as a way of increasing the efficiency and effectiveness of the peer review process while reducing the work load of both the Research Councils and those applying for the funding.

11. It is important, however, that reducing the effort required to submit a proposal does not result in a large increase in the number of proposals submitted as this would defeat the objective. Careful management of the system by well-informed co-ordinators within the Research Councils and the universities is required to avoid this outcome.

12. Assessing potential economic impact

Assessing potential economic impact is difficult to do in any quantitative way. However it should be possible to outline how the results of the research might be applied, for example: by identifying which industrial sectors are likely to benefit; determining whether the research will improve an existing technology or lead to a new type of technology; or if the results will be transferred to an industrial organisation or a spin-out company.

13. Engineering, through EPSRC, already attempts to assess the impact of its research through the use of business/industry based peer reviewers, although there is some concern that these reviewers may not be sufficiently well versed in research to assess the academic value of a proposal. It is suggested that academic and business/industry reviewers use different criteria to judge a proposal, with the academic reviewers concentrating on potential research outcomes and the business/industry reviewers concentrating on the potential economic impact.

14. General Points Raised

The process of peer review, regardless of which option chosen, is fundamentally reliant on the quantity and quality of the reviewers. Too often, to avoid procrastination, cases are presented to a panel with too few referees' reports (often nominated referees) caused by the difficulty in finding willing and appropriate referees. This can result in inappropriate comments being made by reviewers who are not specialists in the relevant subject, a situation which should be brought to the attention of the panel. Greater use of outlines may reduce the overall workload and hence better utilise the services of the reviewers.

15. It is felt that the current system of assessing proposals is too narrow and that a numeric system should be introduced to assist peer review – a substantial scale of 1 to 10 on each agreed measure is suggested.

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