

## **CMS response to EPSRC Mathematical Sciences Programme consultation on Reviewing the Doctoral Training Allocation Process**

We believe that the Doctoral Training Grant (DTG) remains the best way of allocating funding to University Departments for Ph.D. training in Mathematical Sciences. We strongly favour an allocation mechanism which relies on an element of peer review and takes account of factors other than simply the volume of EPSRC grant funding, in assessing the strength of a department's environment for Ph.D. research. Therefore, we are pleased to see that the consultation document preserves these aspects of the allocation process.

We have the following further comments on the document

1. We welcome the move towards a more transparent allocation process, and the working group have identified the important dimensions, together with some possible relevant indicators. We believe that the peer review panel will retain an important role in moderating the mapping between numerical indicators and DTG allocations.
2. The performance indicators suggested seem reasonable, but there remain many open questions. How will Monitoring and Breadth of Training be assessed, and on what scale? (We would expect EPSRC not to be too prescriptive over what constitutes good training.) Over what period are completion rates measured? How will Ph.D. numbers be measured?
3. It is difficult to judge the weightings allocated to each indicator, without any information on the scale on which each indicator is to be measured. For example, what scales will be used for grant income and RAE score, before they are combined using the proposed weightings?
4. We believe that the restriction of the component based on grant income to EPSRC grants is unnecessary. In particular, it treats cross-disciplinary research in an uneven way, giving full credit to Mathematicians who work in Engineering or the Physical Sciences, but at best partial credit to those who work in Biological, Environmental or Social Sciences. We consider that Mathematics or Statistics Departments whose cross-disciplinary work is focussed on areas outside Engineering or the Physical Sciences can provide very fertile environments for Ph.D. training in the Mathematical Sciences, and that the DTG remains the most appropriate way of funding this.
5. We feel that first degree awarded is a very crude indicator of student input quality. We also wonder whether it would be possible to include an indicator of student output quality, based on subsequent destination, or on research outputs arising from the Ph.D.
6. We welcome the proposal to move to a two-year cycle of DTG allocation. It would be helpful if the allocations could be made known earlier in the year than is presently the case.
7. One criticism of the previous system has been the lack of feedback. A more transparent mechanism for assessing performance indicators will partially address this, but we believe that it would be helpful if some thought could be given to providing departments with some informative feedback on their application.
8. We agree with the criticism that the previous mechanism was rather slow to adapt to changes, due to the large baseline carried forward from year to year. To some extent, this was necessary to moderate fluctuations in research grant income. The new indicators proposed should be much more stable over time (for a department in steady state). In particular, the RAE score will remain fixed for several years. In view of this, we question the need to maintain any kind of baseline, which merely has the effect of ossifying historical data.