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CMS response to EPSRC action plan on International Review of Mathematical Sciences 2010

R1. We welcome EPSRC's undertaking that funding applications (including those for any future platform grants) will be opened up to multi-institutional bids. This is a necessary pre-requisite to implementing the IRMS essential recommendation for *flexible funding structures that support excellent researchers wherever they are located*, and the action plan should be strengthened to include a commitment from EPSRC to work with the community in designing such funding structures. The key word here is 'flexible', indicating the desirability of a variety of funding models.

CMS would be pleased to help EPSRC to move forward on this recommendation.

R2. The suggested action simply describes the current situation, with a somewhat vague commitment to open up the operation of the SAT. As such it is a wholly inadequate response to this IRMS recommendation. It is clear that current structures are not working, and what has been proposed so far fails to address this.

We welcome the setting up of the cross-council Task Force on statistics and the involvement of the RSS in this initiative, but fail to see why such developments have been restricted to statistics.

R3. We urge EPSRC explicitly to support opportunities for collaboration, particularly through workshops, by making available smaller-scale grants for such purposes. Once again we recall the watchwords from the IRM report: "flexible funding structures" and "diversity".

R4. We agree that the short length of UK postgraduate training is not only a concern in the mathematical sciences. However, the Action proposed here, referring as it does to "broader consideration", "wider context", "range of stakeholders" is too vague to inspire any real confidence of any specific developments. We are certain that the IRMS panel had in mind here the whole pathway, from Integrated Masters or stand-alone MSc (in particular for statistics), to PhD, and beyond to Postdoctoral Fellowship. Problems with any one of these components have an extremely damaging effect on the whole package.

In particular, we emphasise again that UK mathematical sciences PhD graduates are at a far greater disadvantage than those from other STEM disciplines because of the extremely low number of postdoctoral positions that are available to them. The lack of early career research opportunities means that UK mathematical sciences PhDs do not have the opportunity to secure the same level of research experience as their peers from N America or continental Europe (where PhD graduates are typically several years older than those from the UK), and this is the reason that they are not *competitive on the international academic job market* [IRMS Finding F6]. We deeply regret the continued failure to extend Postdoctoral Fellowships beyond statistics and applied probability, and repeat our request that this be rectified in the very near future.

We welcome the recent announcement of an extended "PhD plus" scheme, but remain very concerned about how it will be funded, and about the details of how it will be implemented. CMS would be pleased to help with these aspects.

R5. We endorse the RSS view that, in view of the typically limited statistics content of many degree courses, it is now the norm to expect aspiring statistics PhD students to complete a Masters degree prior to PhD study, so that we seek a more explicit commitment from EPSRC to expand funding for such 4-year schemes than provided in the Action plan.

R8. We note with disappointment that the IRMS recommendation for separate review panels has not been accepted.

R9. We welcome the establishment of a cross-council task force to coordinate support for statistics, and look forward to increased communication and progress on implementing the action points raised under R9, to *enhance the ability of small [statistics] departments to compete on the international level for new faculty.*

R10. We accept that this recommendation is addressed primarily to the universities. Nevertheless, EPSRC funding decisions and initiatives have a strong impact on the viability of small mathematical science departments generally, and on the geographical diversity of statistics research and teaching in particular.

R11. We agree that support for female researchers is an important issue across EPSRC's entire remit, and welcome the fact that discussions are taking place. We do feel however that this response needs to be strengthened to include a commitment from EPSRC to review its funding mechanisms, to allow more flexibility for researchers funded by grants.