

## Australian Academy of Science

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email to: innovationreview@innovation.gov.au

Professor Mary O'Kane Chair, CRC Program Review Department of Innovation, Industry, Science and Research Canberra

Dear Professor O'Kane,

The Australian Academy of Science welcomes the findings from this comprehensive review of the CRC Program. It confirms the importance of the program for building critical mass in key areas, and promoting collaboration between universities, other research organisations (particularly CSIRO) and industry.

However, the report also provides an insightful and valuable analysis of the changes in attitude (and associated decline in participation) that have arisen in these groupings as a consequence of both changes to the objectives and administration of the CRC program, and structural changes in the higher education system since its inception. In this context, the high level of consistency of issues that emerged from consultations, workshops and submissions are particularly noteworthy.

The Academy notes that a number of issues raised its submission to the National Innovation System Review were considered in some detail. These include

- a review of the intellectual property guidelines for concept development and commercialisation of research arising from CRCs; and
- increased scientific, commercial and financial flexibility so that overlapping but distinct criteria can operate for different situations.

Furthermore, the Academy is pleased to see that the Review endorsed the Government's proposition that public good should be reintroduced as a legitimate output from CRCs. The Academy also welcomes the following specific recommendations:

- increased flexibility in the lifespan, governance structures and intellectual property arrangements for CRCs;
- the refocusing of the program upon research quality and graduate education and training;
- the encouragement of SME participation, international involvement and the continuing requirement to involve at least one university in each CRC;
- while recognising the difficulties faced by universities in providing cash contributions, clarification and increased consistency of accounting rules;

- annual competitive processes in each of the 5 coming years employing a more rigorous selection process that is fairer as it will involve an integrated assessment system;
- more thorough evaluations and balancing the recognition that failures are to be expected with the provision of early assistance to address problems;
- close integration with the ARC Centres of Excellence Program; ARC Discovery and Linkage grants, the CSIRO Flagships and the NHMRC Partnerships Programs.

However, the Academy wishes to offer some additional comments on matters raised in the CRC Review:

- 1. While the Academy is supportive of the recommendation to include pre-applicative research to produce public goods and services as a component of the prime objective of the CRC program, it will also be important to achieve diversity amongst CRCs engaged in pre-competitive research. No-one can argue against CRC targets being outcomes-focused and aimed at end-users, but the identified challenges in Recommendation 2 may present difficulties in characterisation and differentiation from other funding schemes.
- 3. The performance of the CRC program deserves a significant increase in government funding on the basis of the achievements to-date, rather than the "modest increase in total funding" anticipated in the covering letter to the Minister. This is of particular importance when publicgood focussed CRCs are proposed because these are likely to be more dependent on government and non-industry funding.
- 4..Many of the proposals represent improvements that are overdue in a program which has been operating for 18 years, but there are inherent tensions between the Review's proposals for standardised performance measurement criteria and its recommended enhancements to operational flexibility. This could over time result in a re-emergence of the type of reporting requirements that were observed as 'excessive rather than robust'.
- 5. Minister Carr's media release of 5 August 2008 welcoming the release of the CRC Review comments that the CRCs "have also produced over 4,650 industry-ready postgraduates, including over 2,460 graduates with PhDs." These are very large outputs even if the research was only partly undertaken at a CRC. It would be useful to have more detailed information on where these graduates are now employed and an assessment of their contribution beyond the CRCs.

Yours sincerely,

Graham Farquhar