

## Collaborative Research Networks Program - Discussion Paper

### Introductory comments

The Australian Mathematical Sciences Institute (AMSI, see [www.amsi.org.au](http://www.amsi.org.au)) is a collaborative venture that has supported research in the mathematical sciences in both large and small universities. The responses to this CRN program are informed from that perspective rather than the specific questions asked.

From AMSI's perspective this could be a very valuable program. Disciplines such as the mathematical sciences are ideally placed for such a program as they are not tied to major requirements for equipment or space. In particular, this could be an ideal program for supporting the mathematical needs of smaller universities where mathematical tools are required in other discipline areas but not covered by the local mathematical research range.

AMSI supports the aims and rationale outlined in sections 1 and 2.

### Consultation Question 1 - Eligibility

AMSI believes that Australia needs a CRN program and would be disappointed if this program was discontinued if it was proving effective. In the USA the NSF is funding Institutes in the mathematical sciences that have many elements of the proposed CRN program. It has been stated that the NSF sees these institutes as a way of funding researchers who do not have grants to have some support. However, the NSF institutes are funded for 10 years with a single mid-term review. To date those reviews have led to increased funding.

### Eligibility criteria suggestions:

1. National priority areas eg statistics, operations research, geophysics, entomology. For example, all universities need a statistical consulting service in order to guarantee the integrity of quantitative research methods and a partnership could be used to put such a service in place at the lead university in addition to growing general capacity in statistics research.
2. Existing links between the participating researchers: growing current partnerships should improve the success rate.
3. Cross-disciplinary areas such as medical imaging so that existing groups at the lead university can complete the multi disciplinary circle with researchers from the larger partner.

A 'less-research-intensive institution' might be defined at the discipline level in national priority areas. An examination of research data will expose the relation between overall research performance and performance in areas of national priority.

### **Consultation Question 2 - Allocation Mechanism**

AMSI would support a competitive approach around some national priorities. The ERA will drive institutional approaches to support discipline areas that already have some base. This is an opportunity to encourage growth and development in newer areas that could be of great benefit to Australia. Nonetheless partial funding is a potential problem and it would be unacceptable if funding levels for successful applicants went as low as those in the ARC Discovery Project scheme, for example.

### **Consultation Question 3 - Scope of Program**

Government agencies and industry partners could be part of a CRN but only in the presence of both lead and partner universities. AMSI could be involved in this way to bring involvement from experts at third party institutions and agencies.

Outcome and performance indicators: publications, grant applications and success, increased postgraduate enrolments, increased patent applications, etc.

### **Consultation Question 4 - Lighthouse projects**

AMSI strongly supports this type of project and we are an example in our own right. AMSI acts as the lighthouse project in the mathematical sciences by providing funding for workshops, research visits, graduate & summer schools in the mathematical sciences, etc., which involve almost all Australia's mathematical sciences departments. The smaller mathematical sciences departments benefit from the involvement of the larger ones (the Go8 are all full members of AMSI). The network is linked, at least partially, by the AMSI Access Grid Network which delivers seminars, research collaboration and honours/postgraduate courses.

### **In summary**

Many of the ideas suggested have been core business for AMSI since it was established. This type of program is needed but it should be driven by national needs and serious consideration given to extending it well beyond the current funding period of three years.



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