

The logo for the University of New England, featuring the lowercase letters 'une' in a stylized, light green font on a black square background.

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University of
New England

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Submission to
House of Representatives Industry, Science and Innovation
Standing Committee Inquiry into Australia's International
Research Engagement

March 2010

INTRODUCTORY COMMENTS

UNE would broadly endorse the 8 recommendations put forward in the Universities Australia submission (Feb 2010) to this inquiry (see Addendum below). However, we would like to take the opportunity to provide additional contextual material relevant to the five specific Terms of Reference for the Inquiry.

1. THE NATURE AND EXTENT OF EXISTING INTERNATIONAL RESEARCH COLLABORATIONS

For a small regional university like UNE, but one which has a significant research profile and agenda, international research collaborations are essential for extending the reach and relevance of its research as well as for drawing on complementary skills and contextual knowledge. UNE already has a number of significant international research collaborators and is actively growing this number. Additionally, UNE has embarked on a strategy of forming research relationships with selected overseas institutions to address common research needs and priorities. The Universities Australia submission drew attention to one of these areas in highlighting the *Toward Cancer Cures* project where UNE is collaborating with institutions on three continents.

UNE has established a strategic vision to “further engage in various aspects of internationalisation including ...conducting research with international collaborators to develop knowledge and to share UNE’s research expertise”. In conjunction with this vision, one of UNE’s strategic aims is to ‘create regional to global impact’. In this regard, we are building international collaborations with institutions in other countries where rural and regional issues and problems form a central research focus. The most recent example of this is a letter of intent formalising a research relationship between UNE and Pennsylvania State University where both institutions share a history of working with rural communities.

Demand from international research students wanting to do their research study at UNE increasing. In fact the increase is at such a rate that, institutionally, we lack the resources needed to provide attractive scholarships to bring them to UNE. **Enhanced government support for international HDR scholarships would go along way here.**

2. THE BENEFITS TO AUSTRALIA FROM ENGAGING IN INTERNATIONAL RESEARCH COLLABORATIONS

International research collaborations produce obvious benefits for research at the institutional level. Research projects gain contextual richness through the harnessing of diverse perspectives that international collaborations can yield. Staff visits and exchanges can provide fertile ground for building significant projects that are meaningful both within and between the collaborating institutions. Beyond the institutional level, Australia as a nation benefits through such enriched research. Australia is a small and geographically isolated nation. This can lead to tendencies to be inward-looking in its research and innovation/ commercialisation agendas. International research collaborations serve to combat these inward-looking tendencies and provide Australian researchers access to internationally accessible infrastructure, contexts of potential or actual application of research outcomes and research expertise as well as provide access to Australia’s unique contexts and perspectives to the collaborating institutions from overseas. Thus, two-way learning, knowledge transfer and synergies are facilitated, potential markets for commercialisation are exposed and expanded and Australia remains at the forefront of institutions willing and able to participate in international collaborative research that produces real outcomes that could not be achieved by the individual institutions on their own. In many cases, the ‘whole’ of the research produced exceeds the sum of the institutional parts because of the synergies that are produced. For

example, UNE has seen this occur in its behavioural genetics research on reading acquisition in twins, in collaboration with the University of Colorado and University of Linköping in Sweden.

In the context of international HDR students, there are clear two-way benefits to Australia enhancing opportunities for study in Australian universities. Australia benefits through knowledge creation enhanced by culturally diverse perspectives and problem spaces; the home countries of the students potentially benefit from the enhanced skills sets and knowledge that students return with. **There are opportunities to expand the focus on international HDR scholarships to encompass fee scholarships for part-time HDR students doing their research 'in country' on contextually relevant problems, with supervisors from both an Australian institution and an institution from the student's home country.** This is especially important for developing countries where the students may already be in full time employment and absence from their workplace for a 3-4 year period of PhD study in Australia would create a huge burden. However, there would be benefits to Australia to such a model: students would be supported do research on locally-relevant problems where Australian supervisors have significant opportunity to bring their expertise to bear on helping to shape the research as well as to learn about a more diverse range of research contexts - in short, a contribution to nation-building. Furthermore, more opportunities for international research collaborations could be opened up, simply because the student's research and their affiliation with an Australian institution is locally visible. UNE is currently exploring possible models to create such opportunities for international PhD students.

3. THE KEY DRIVERS OF INTERNATIONAL RESEARCH COLLABORATION AT THE GOVERNMENT, INSTITUTIONAL AND RESEARCHER LEVELS

From UNE's perspective, there are several key drivers for enhancing international research collaboration:

- Confronting problems that are shared across international boundaries and which may demand generalisable solutions, policy instruments, interventions and/or innovations; e.g., climate change and sustainability research; issues in rural and regional communities, education, businesses and governance; enhancing the productivity sustainability and of agricultural industries; engaging indigenous issues and perspectives **(this should be a driver of keen interest to the Commonwealth Government and may lead to enhanced commercialisation opportunities);**
- Increasing demand from international students to do their research in particular areas at UNE or with particular UNE supervisors;
- Enhancing UNE's (and, by association, Australia's) visibility and reputation on the world stage;
- Energising more systemic perspectives on research through drawing upon a more diverse ranges of perspectives, skills, contexts and expertise **(this should also be a driver of keen interest to the Commonwealth Government);**
- Enhancing opportunities for sharing access to key infrastructure **(another driver of keen interest to the Commonwealth Government);** and
- Reducing the research burden on isolated individual researchers.

4. THE IMPEDIMENTS FACED BY AUSTRALIAN RESEARCHERS WHEN INITIATING AND PARTICIPATING IN INTERNATIONAL RESEARCH COLLABORATIONS AND PRACTICAL MEASURES FOR ADDRESSING THESE

From UNE's perspective, we see the following continuing impediments:

- Our location in northern inland NSW, which creates high cost impositions for travel to create and maintain international research relationships (with association detrimental implications for the environment). This one is not easy to overcome, but enhancements in eResearch capacity to enhance connectivity with international research, could help to offset this limitation. Here, we would strongly support Recommendation 6 in the Universities Australia submission but would argue that an explicit international dimension be built into the funding schemes.
- Limited resources to fund staff exchanges - currently, the best opportunity UNE can provide for researchers to do research internationally and create/maintain international research collaborations is via

its Special Studies Program. However, this is one-way traffic - UNE researchers go overseas. Resources to enhance capacity to bring international scholars to Australia would be very useful. Here, we would strongly support Recommendation 5 in the Universities Australia submission.

- Our capacity to offer scholarships to international HDR students cannot keep pace with demand, the current allocation of IPRS places is insufficient and UNE has limited financial slack to devote to enhancing such support. Here, we would strongly support Recommendation 4 in the Universities Australia submission. Further, we would argue that potential new models for offering scholarship support to students from developing nations doing their research 'in-country' be considered - Recommendation 7 in the Universities Australia submission flags an element of this, but UNE would argue the logic needs to be extended further.
- In some cases, perspectives on intellectual property (IP) may differ between Australian institutions and overseas institutions and this could potentially create impediments. There may be no easy solution here, as each institution has its own IP policies. However, Gray vs UWA may create ripple effects that every institution may have to deal with and we do not know what, if any, international implications this decision might have with respect to IP created in the course of international research collaborations. As another example, how Australia currently handles (or doesn't handle) indigenous IP is distinctly different from how Canada handles indigenous IP. This could adversely affect international research collaborations with Canadian institutions where indigenous research is the focus. Both of these issues need to be addressed at a level above individual institutions with a view to the evolving international landscape. Furthermore, there is a need to broaden the focus to encompass ethical and social responsibility issues across national borders, especially where provision of research data and commercialisation of research outcomes are concerned.

5. PRINCIPLES AND STRATEGIES FOR SUPPORTING INTERNATIONAL RESEARCH ENGAGEMENT

We would highlight some key general principles underpinning international research engagement as follows:

- International research engagement is an essential pathway to research and innovation that are systemically embedded within a more diverse range of perspectives and application/problem solving contexts.
- For smaller regional Australian universities that have a strong research track record and profile, international research collaborations form an essential component of overall research strategy.
- International research collaborations contribute to nation building and this is a role that Australia should continue to enact, within its immediate global context and beyond.
- International research collaborations are an essential strategy for organisational, discipline-based and multidisciplinary learning and for achieving a better balance between an inward and outward focus in research.
- International research students are an essential component of any strategy to enhance international research engagement, both for Australian institutions and for the home country of the student.

Following from these principles and our comments under each of the Terms of Reference for the Inquiry, we would suggest the following strategies for the Commonwealth Government to consider:

- Continue to enhance funding for eResearch infrastructure but with a distinct international connectivity focus in-built. The current ANDS and ARCS EIF programs and the NCRIS program seem to have a distinct focus on capacity and infrastructure building within Australia but without much of a dialog about the international dimension.
- Enhance funding for international HDR students and consider a more diversified range of funding models to allow study both on-shore and off-shore in-country. In the first instance, the focus here should be on students from developing countries.
- Research outcomes from international research collaborations should be given a distinct place within the ERA assessment framework and these outcomes should be broadened to include research impacts in the collaborating home countries.

- Serious attention needs to be given to the IP issues that may accompany international collaborative research (and this should encompass ethical and social responsibility principles and issues as well). This stands to be a serious matter for the future.
- The Government should consider ways in which it could provide enhanced support for researchers/institutions to create and maintain international collaborative research relationships (e.g., exchange programs, network building and knowledge sharing events), perhaps through the mechanism of the JRE research block funding. Alignment with national priorities, and, where possible, with international priorities (e.g., climate change, biosecurity) could be a useful way of gauging and supporting such work.

ADDENDUM (FOR REFERENCE ONLY)

The eight Recommendations put forward in the Universities Australia submission (Feb 2010, p. 2) are:

1. An increase in funding for basic (Australian Research Council) research of at least \$100 million per annum, to arrest the current decline in grant success rates and enable Australia to retain the fundamental research capacity on which international collaboration is based.
2. Introduction of an ongoing mechanism for facilitating funding of landmark (\$100 million dollar plus) international collaborative projects such as the Square Kilometre Array telescope.
3. Restoration of the priority in the skilled migration program given to international students graduating from higher degrees by research.
4. Expansion of the value and number of International Postgraduate Research Scholarships to enable universities to attract the best international research students.
5. A new grant program to support enhanced academic exchange by university faculty and shared supervision of higher degree by research students.
6. Creation of a second phase for the National Collaborative Research Infrastructure Scheme past its current 2011 funding date to ensure adequate infrastructure in key priority areas.
7. Establishment of a grants program within AusAID to promote organisational capacity building of collaborative research partners in developing countries in the Asia-Pacific region.
8. An early review of the funding adequacy and support model provided by the Commercialisation Australia initiative to ensure that potential commercial products developed through international collaboration have a clear path to market.