

29 January 2010

Standing Committee on Industry, Science and Innovation
House of Representatives
Parliament House
Canberra ACT 2600

Re: Submission for Inquiry into Australia's International Research Collaborations

To Whom It May Concern:

Thank you for the opportunity to comment on the Inquiry into Australia's International Research Collaborations.

As an English-speaking, OECD nation in the Asia-Pacific region that is heavily dependent on international trade, Australia is profoundly dependent on international knowledge exchange. International research collaborations are critical to ensuring that Australian researchers actively contribute to developing solutions to local and global problems.

As a "global university of technology", RMIT fosters research that is "designed for impact, and responds to demands across the world...and integrates us with the societies in which we are located". RMIT researchers engage in collaborations with many international partners and RMIT is developing a research profile at its Vietnam campuses.

A copy of RMIT University's response to the Inquiry into Australia's International Research Collaborations is attached to this letter. If you have any questions regarding the views expressed therein please feel free to contact me.

Yours sincerely



Professor Daine Alcorn
Pro Vice Chancellor
Research and Innovation

cc *Professor Margaret Gardner*
Dr Julie Eisenbise
Dr Lois Fitz-Gerald
Dr Julie Wells



RMIT University's Response to Inquiry into Australia's International Research Collaborations

The nature and extent of existing international research collaborations

RMIT's mission is to "create and disseminate knowledge to meet the needs of industry and community and to foster in students the skills and passion to contribute to and engage with the world". RMIT's strong connections with industry and community in a local and global context are critical to achieving this mission. RMIT's "research orientation" can be described as "engaged", "collaborative" and focused on finding solutions to "real world problems".

As a "global university of technology", RMIT encourages and supports research that has a global focus. RMIT is actively engaged with international partners in our region and beyond to produce high quality research outputs. RMIT's international research collaborations take a number of forms including research training and collaborative research projects.

Research Training

- RMIT and international partners collaborate to deliver research training programs to Higher Degree by Research (HDR) students. RMIT has an agreement with the Vietnam Ministry of Education and Training to deliver research training programs. These programs are delivered in partnership with a number of Vietnamese institutions including Nong Lam University, Hanoi University of Education and Hanoi and Ho Chi Minh City Universities of Technology. RMIT also has a joint PhD training program with the Indian Institute of Chemical Technology in the area of environmental science and technology.
- The RMIT International Industry Experience & Research Program (RIERP) uses state of the art research facilities of partner companies (including Audi, Bosch and Airbus) to provide research infrastructure for RMIT postgraduate students. The students are co-supervised by an RMIT researcher and an appropriate mentor at the partner organisation.

Collaborative Research Projects

- Researchers from RMIT collaborate with international partners from around the globe on research projects. Researchers from RMIT's Global Cities Research Institute are involved in research collaborations with partners in the Asia-Pacific region and beyond. The Institute's primary research sites include Vietnam, Malaysia, India and Papua New Guinea and its secondary research sites include China, Cuba, Indonesia, Japan, Mexico, Sri Lanka and the United States of America.
- Some examples of recent collaborations by RMIT researchers include:
 - Kuala Lumpur, Malaysia – RMIT researchers partnering with the University of Malaya, University Kebangsaan, Malaya and University Sains Malaysia are undertaking a longitudinal community-based study following the relocation of squatter settlement communities to new low-cost, high-rise housing commission complexes.
 - Galle, Sri Lanka – RMIT researchers collaborating with colleagues from the University of Colombo, the South Eastern University, the Foundation for Goodness and National Economic and Social Development Office (NESDO) have been investigating the resilience and adaptation of communities to crises such as the recent tsunami and the violence of civil war.
 - Ho Chi Minh City and Hanoi, Vietnam – RMIT has built a strong relationship with the Vietnamese Academy of Social Sciences (VASS). In 2008, RMIT hosted three senior researchers from VASS for three months who were developing a strategic framework that identified social science research priorities for climate change policy development in Vietnam.

International Research Networks

- RMIT has international research collaborations with universities and research institutions around the world. RMIT collaborates with over 15 organisations in Canada, France, Germany, Japan,

Jordan, Singapore, over 50 organisations in China, over 70 organisations in the United Kingdom and over 120 organisations in the United States.

- RMIT is an active member of several international research networks including the Global Universities of 8 and the ISTA nano-network.

The benefits to Australia from engaging in international research collaborations

There are many benefits from engaging in international research collaborations. As a large but sparsely populated nation, Australia has much to gain from collaborating with experts in other nations to solve local and global problems. The most important benefits to Australia from engaging in international research collaborations include:

- Knowledge exchange
- Contributing to regional understanding and co-operation
- Access to research infrastructure
- Development opportunities for Australian academics
- Increased international exposure through publications
- Increased market opportunities for research outputs
- Increased opportunities to gain an international perspective
- Increased access to new technology, methods, ideas and solutions to problems
- Increased access to international scholarly debates
- Increased international research profile for Australia

The key drivers of international research collaboration at the government, institutional and researcher levels

There are a number of drivers for international research collaboration for the government, universities and researchers.

For government, the key drivers include:

- To build and “expand Australia’s overall innovation capacity” (see *Powering Ideas*, Page 64)
- To attract global industry by offering world-class but locally based research
- To improve the quality of Australian research
- To build research capacity through improved access to funding (e.g. leveraging funding from international schemes)
- To promote Australian research internationally
- To find solutions to local and global problems
- To strengthen Australia’s position in the international education market
- To support and strengthen trade networks

For RMIT, the key drivers include:

- To enhance research performance
- To produce high quality/impact research outputs
- To enhance teaching and learning programs, i.e. through internationalised curriculum and pedagogy, enhanced opportunities for international experience etc
- To develop and strengthen strategic partnerships and networks
- To create opportunities for staff and students
- To strengthen the research culture of RMIT
- To grow the number of high caliber academics at RMIT

- To build capability and inspire/engage early career researchers
- To enhance and strengthen the RMIT brand

For researchers, the key drivers include:

- To work with leading international scholars to investigate/solve a particular problem
- To produce high quality/impact research outputs
- To work on research questions that aim to address real world problems
- To enable access to critical research infrastructure
- To enhance knowledge
- To provide a network for academics and post-doctoral students

The impediments faced by Australian researchers when initiating and participating in international research collaborations and practical measures for addressing these

Over the past decade advances in telecommunications have made international research collaborations more feasible. Researchers have access to many different forms of communication to build and maintain relationships with international partners. Despite the relative ease of communication, successful collaborations often require face-to-face meetings. There are a number of impediments that Australian researchers face when initiating and participating in international research collaborations. These impediments and some practical measure to overcome them are outlined below.

Impediment - Inadequate funding

- In Australia funding generally assists small, one-off projects rather than long term collaborations with international partners.
- Project funding does not often take into account additional costs associated with international research collaborations such as travel and housing support etc.
- It is quite costly for students to "live abroad" and there are limited funding opportunities for international students and post-doctoral fellows.

Practical measures to overcome impediment

- Allow greater flexibility in funding arrangements to support international collaborations, including allowing researchers who are based overseas but plan to work at Australian universities the opportunity to apply for Australian funding schemes to ensure that they maintain a continuous research program.
- Introduce schemes to support international students to undertake higher degrees by research and post-doctoral fellowships (similar to those schemes found in Germany, China and the USA). These schemes would help to attract high caliber post-doctoral students to undertake a research program in Australia for 2-3 years and then return home.
- Provide funds to facilitate visits from international researchers.
- Provide incentives to Australian businesses to support international research collaborations.

Impediment - Poorly articulated research strengths

- Australia's research strengths are not well identified at an institutional or national level and many potential international partners do not have a clear sense of what Australian researchers can offer.

Practical measures to overcome impediment

- Use the Excellence for Research in Australia (ERA) to identify research strengths at an institutional and a national level. Use ERA results to prepare capability statements and other communications.
- Identify and develop mechanisms to develop well-structured research collaborations (e.g. through treaties and agreements).

Impediment – Lack of professional development support

- There is little professional development support to underpin developing the skills required for successful international collaborations, including networking skills.

Practical measures to overcome impediment

- Introduce mentoring programs to support professional development for early career researchers
- Introduce specific goals to engage with international universities, particularly targeted to countries and regions with funding to support collaborative activities (e.g. China and India)

Impediment - Inadequate infrastructure

- In some countries where Australian researchers collaborate there is sometimes inadequate infrastructure to support research activities and a shortage of technical support staff.
- Australia's research infrastructure is not always as sophisticated as the infrastructure in other countries.

Practical measures to overcome impediment

- Investigate whether Australian embassies could support Researcher in Residence programs and provide facilities and other support to researchers.
- Identify areas where Australia's research infrastructure is particularly sophisticated and promote/support international collaborations in these areas.

Impediment – Support for Visiting Researchers

- Processes relating to immigration, including timeliness of visa approvals, can be a barrier to international research collaborations. These barriers may be in Australia or in countries where research partners are located.
- Australia is often regarded as a very bureaucratic nation and this can discourage would-be collaborators.

Practical measures to overcome impediment

- Take steps to ensure that Australia's immigration policies and laws support researchers and their families to come to Australia to participate in research collaborations.
- Take steps to ensure that researchers and institutions can easily navigate Australia's bureaucratic processes.
- Introduce schemes to encourage and support visiting researchers and their families, for example by promoting the benefits of "Wintering in Australia".

Impediment - Cultural and language barriers

- Although language is sometimes a barrier, it is often cultural barriers that impede research collaborations. These barriers may include the need to develop relationships over several years before collaborations can commence.

Practical measures to overcome impediment

- Promote greater flexibility in funding schemes to nurture long term partnerships (see also above).
- Provide greater language support for working with collaborators, particularly in Asian countries

Principles and strategies for supporting international research engagement

The sixth National Innovation Priority states that "Australian researchers and business are involved in more international collaborations on research and development". As noted above, many of RMIT's

research collaborations transcend disciplinary and international borders with researchers working closely with peers and partners in other institutions and countries. However the new funding schemes implemented to support research collaboration are focused firmly on collaboration within Australia. RMIT would like to see more attention paid to increasing and supporting international research collaborations.

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