

Inquiry into Australia's International Research Collaborations

Submission from Victoria University

Victoria University (VU) would like to express thanks for the opportunity to make a submission to this inquiry.

Victoria University is a multi-sector university that offers educational programs to students from vocational and further education programs through to masters and doctoral research programs. Victoria University's educational programs and research and research training are structured around 11 industry clusters and have a strong focus on preparing graduates and contributing to research and development that will bring direct benefit to these industry clusters.

Victoria University has identified and supports nine areas of core research strength, centred on its Institutes and Research Centres. In addition, its three higher education faculties contribute to a wide range of research across disciplines that are prominent in the University's profile of industry clusters.

Following are the comments VU would like to make under each of the terms of reference:

1. The nature and extent of existing international research collaborations

Victoria University's international research collaborations can be mainly categorised into two forms of engagement:

1. Institutional engagements: these are the international research activities initiated and driven by the university senior management. These activities are initiated mainly due to their strategic nature and significance to the institution. Eg: participation in bilateral research scholarship programs, engagement in the Australian government awards programs, development of new research programs such as "cotutelle" research degrees, development of research mobility programs, and policy development on internationalisation of research.
2. Researcher level engagements: these are the activities initiated and driven by individual academics and researchers motivated purely by their individual or research group aspirations and specific collaborations and partnerships associated with shared research interests. Eg: international research conferences and workshops, joint academic publications, joint research projects, Higher degree by research (HDR) student participation in joint research projects, hosting international scholars, invited as visiting scholar at another institution.

VU would like to note that the bulk of international research activities are initiated at the grass roots level and emerge from contributions by individual researchers. In this context the role of the university senior management is limited and management acts predominantly as a facilitator to provide necessary support and encouragement to translate smaller research activities into larger and more complex projects involving: intellectual property, technology transfer, research training and commercialisation.

2. The benefits to Australia from engaging in international research collaborations.

- Higher Degree by Research (HDR) student recruitment and international links

International research students are an essential valued cohort within the Australian research community and they make a significant contribution to research and knowledge creation. After graduation international research students become the next generation of researchers and academics in their respective home countries and home institutions. As a result of a successful experience in Australia many of these students maintain their already established links, especially with their supervisors and other research counterparts. Often these links

translate into successful collaborative research projects. In this context; international research students are the conduit of international research collaboration. According to 2009 annual data, Victoria University has a total of 479 EFTSUL of higher degree by research students. One third of this student population is international students. From 2005 to 2009 VU experienced a gradual and consistent growth of its international HDR cohort with many of the students representing Asian/ South East Asian and Middle Eastern nations. Key factors for this consistent growth were the strategic approach of VU to recruiting the high quality international research students and the strength of existing established researcher reputation and links with overseas countries.

- Competitiveness and sustainability of Australia's research

Collaborative research activities of Australian institutions enhance their ability to expand the existing knowledge base. Partnerships formulated at both institutional and researcher level provide access to a number of essential resources for research such as: additional expert knowledge, knowledge of new disciplines, shared research costs, additional research funding and access to international research labour markets. Further, international research translates into additional inward streams of research funding, either as research investment or scholarship money to support research students or research scholars.

- Providing solutions to global and local issues through shared knowledge

International research provides the ability to share knowledge among researchers and academics of other countries. This includes finding solutions for the most pressing global issues as well as issues more relevant to Australia. Some of the researchers in VU are engaging in international collaborative research activities to find solutions to Australian issues such as water, environment sustainability and mining technology. No single Australian institution has the capacity and capability to cover all research possibilities related to a particular issue. In this context international expert knowledge is providing invaluable access to advanced technology, instruments and methodologies.

- Building bilateral and multilateral diplomatic links

Bilateral and multilateral research activities including research student recruitment are categorised as "soft diplomacy". Soft diplomacy provides a ripple benefit to Australia through building stronger inter-governmental links. Further, international HDR students are contributing to developing the next generation of Australian researchers through the choice of many to become skilled migrants to Australia. In addition, mutual international exchange of researchers and students helps to facilitate better understanding of different cultures and societies and build strong longer term links with future leaders of other nations.

3. The key drivers of international research collaboration at the government, institutional and researcher level.

Much of what is relevant to the second point in the terms of reference also supports this point, including:

- Access to new ideas and techniques and improved research quality and reputation

Having access to new ideas and techniques is vital to value-adding to existing and on-going research with an underlying focus on improving the overall quality of research. Therefore the advancement of knowledge is one of the primary drivers of international research. Also at the institutional level, prominent international collaborations increase the reputation and ranking of a specific research discipline.

- Access to new funding streams

International collaborations increase the opportunities for both researchers and institutions to tap in to external funding streams. These funding streams include: Australian bilateral research grants, overseas government grants and scholarship funds, international and local institutional grants, philanthropic funding by internationally focussed major philanthropic bodies and corporate sector funding.

- Financial contribution from international research students

DIISR research and research training funding formulas consider the annual enrolment load of all research students as well as all completions from research degrees. A report released by DEEWR in 2009 suggests international research students have a better timely completion record compared to domestic students. In this context it is financially beneficial to have international HDR students as a significant cohort of the overall student population. In addition, there are added funding benefits to institutions through full fee paying international HDR students.

- Cross cultural experience

At the researcher level there is considerable enthusiasm and intellectual stimulation when working across national boundaries. Such collaboration provides the experience of working with researchers who have different viewpoints and different research practices. Also working in the international context provides opportunities for researchers to demonstrate their own capabilities and debate their research outcomes with international counterparts.

- Demand for international exposure from research students, postdoctoral fellows and researchers

Factors such as increasing levels of ethnic diversity of researchers and students in Australia along with international mobility and easy access to information have motivated students, postdoctoral fellows and researchers to request international experience as part of their research career. This demand has pushed institutions to initiate a number of schemes and activities such as international travel grants, exchange programs, thesis supervision panels with international participation and SEED funding programs for international research.

4. Impediments faced by Australian researchers when initiating and participating in international research collaborations and practical measures for addressing these.

- Inadequate funding and inequitable access to funding

Currently there are only a small number of international research funding schemes; these schemes are primarily functioning under bilateral agreements with a nominated country. Considering the importance, necessity and the enthusiasm to build more international research links, many researchers find the financial support available is very limited. Furthermore, the support that is currently available has become more centred in a small number of institutions and in large generally high technology focussed projects. VU would like to suggest that: the Australian government take the necessary steps to ensure a pool of funding is available, without limiting that funding to only a small number of designated partner countries and institutions.

- Lack of SEED funding to initiate collaborations at the researcher level

Most of the initiation and success of international research projects relies on the interest and enthusiasm of individual researchers, and their intellectual and interpersonal synergies. Also many of the projects commence at a very grass roots level through small research projects, joint publications, international conferences and research student supervision. Therefore it is vital to foster these grass roots level activities to develop international research capacity into much larger and more complex projects. Currently, there is a lack of funding for such activities. Therefore, the availability of SEED funding which can be accessed by both researchers and institutions would significantly help to cement ongoing relationships as well as become a feeding mechanism for larger activities in the future.

- Australian award schemes only centred on certain countries

Many Australian researchers have strong links with Europe and/or North America. This is due partly to their previous studies and/ or residence in these regions. However the quality of research being conducted in these regions (as evidence by the rankings of universities) make opportunities for researcher mobility to a high priority for further building Australia's research and development profile. Currently, Australia's leading scholarship programs for researchers do not encourage or provide support for researchers to undertake research in Europe and /or North America. As an example, the Endeavour Awards program does not support Australians from visiting these regions. This hinders our ability to strengthen links and also to learn from advanced research techniques available in those countries. VU would like to acknowledge the importance of forging links with Asia but at the same time it is vital we preserve and develop our historical links with Europe and North America. Therefore VU would like to suggest that the Endeavour Awards program (outgoing) be open for Europe and North America or that a dedicated new scheme be introduced.

- Australian visa restrictions and delays

International research collaboration is not simply about Australian students and researchers travelling overseas, it also involves researchers and students from abroad taking part in research at Australian institutions. As mentioned, the benefits of collaboration are well understood, but onerous and inflexible visa provisions affect the ability of many international researchers and students from taking up positions in Australia. The existing administrative and bureaucratic barriers to obtaining visas by overseas students and researchers hinder Australia's ability to enhance its international research activities. Therefore VU would like to suggest that simplified and less bureaucratic visa processing mechanisms be implemented for research related studies and visits with better communication and coordination between federal departments responsible for visa management and related issues.

- Capacity building programs for researchers on how to be successful in international research

Working across national boundaries brings a number of challenges and differences including: communication, work practices, ethical and moral issues, business protocols, geographical barriers, institutional governance, political ideologies, socio- economic issues and intellectual property. Various tools supported by information technology have either eliminated or reduced many of these challenges. Nevertheless there is still considerable work to be done, in multiple dimensions, to enhance the skill levels of our researchers in dealing with these challenges. Therefore VU would like to suggest that the government supports to build a set of capacity enhancement mechanisms such as international research expert panels, panel discussions and case studies for the Australian research community.

5. Principles and strategies for supporting international research engagements

- Cross-institutional networks for international research

The importance of international research means it is timely to have a better conversation and understanding among Australian institutions about their international research activities and challenges. This conversation must happen among the senior managers and academics involved in executing institutional level research collaborations. In 2009 the International Education Association Australia (IEAA) initiated the “IEAA research roundtable” to commence discussion and increase networking among professionals. It is important that these types of initiatives are encouraged and supported by the government to address issues surrounding international research.

- Cohesive promotional strategy to showcase Australia’s research strengths

Australian universities have been successful in promoting education and in recruiting international students. However, with the emergence of new trends in international research, it is vital for Australian universities to showcase their research strengths rather than merely focusing on recruiting international HDR students for their programs. Many sponsorship agencies and overseas governments are interested to hear what research capacity Australia and Australian institutions have and how they can strategically reap benefits from our expertise. In this context, the Australian government in collaboration with states and territories should consider developing a cohesive promotional strategy to showcase our capabilities and strengths.

- Schemes to support research consortiums

Many Australian institutions have complementary research disciplines and some institutions are stronger than others. Australia can increase its bargaining power in the global context if our institutions act cohesively rather than competitively when forging research networks locally and then extending them internationally. Therefore strategic government support or the establishment of research pooling initiative being adopted by Scotland to enhance international competitiveness or collaborative research consortiums similar to the UK’s Doctoral Training Consortia would be beneficial to: a) pool Australia’s research capacity b) increase academic collegiality and enhance the overall research capability of our institutions. If this type of a concept is to be successful there should be opportunities for participation and access to a support across the range of universities: large, medium, small and regional.