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Professor Arun Sharma
Deputy Vice-Chancellor

29 January 2010

The Secretary
House Standing Committee on Industry, Science and Innovation.

Dear Sir/Madam

Please find attached a submission to the House of Representatives Industry, Science and Innovation Committee New Inquiry into International Research Collaboration, from the Queensland University of Technology.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Arun Sharma', with a long horizontal stroke extending to the right.

Professor Arun Sharma
Deputy Vice-Chancellor (Research & Commercialisation)
QUT

Inquiry into Australia's International Research Collaboration

Submission from the Queensland University of Technology

29 January 2010

1. *The nature and extent of existing research collaborations*

QUT's existing research collaborations are predicated on our existing research strengths, future strategic priorities at institutional, state and national levels and are shaped by the nature and source of funding available – without these external sources of funding, these collaborations would not be possible.

These funding sources can be grouped as follows:

- Large scale strategic government to government initiatives, such as the Australia-India Strategic Fund, under which QUT has attracted \$2.25 million from the Australian government for a project to investigate the protection of critical infrastructure from denial service attacks. The Indian government has also contributed \$3 million to Indian partners for this project
- Funding under the National and International Research Alliance Program (NIRAP) which has contributed to developments such as the Australian Prostate Cancer Research Centre – Qld; and the Syngenta Centre for Sugarcane Biofuel Development
- Funding based on strengthening research training and capacity building, for example China Scholarships Council funding for PhD students;
- International consultancy and training projects run on a commercial basis in most countries in the South-West Pacific and South-East Asia
- Country-specific capacity building programs in Africa, Malaysia, Vietnam, and the Philippines, Middle East; funded by philanthropic associations such as the Bill and Melinda Gates Foundation (Africa), The Atlantic Philanthropies (Vietnam)
- Corporate collaborations, such as those with Boeing (Airports of the Future project) and Microsoft (Microsoft e-Research Centre)
- Sugar Research Limited research consultancy activities in Brazil, India and China.

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

QUT derives significant direct and indirect benefits from engaging in international research collaborations, such as:

- The ability to be able to access funding that would not normally be available from Australian sources
- The ability to collaborate on end user problems on a global scale, which brings an additional dimension to the strength and quality of the research that is undertaken
- Increased access to internationally competitive expertise and infrastructure
- The ability to create large scale global teams to address research problems

- Enhanced mechanisms that enable QUT researchers to work overseas, and researchers from other countries to come to Australia
- The ability to build our brand globally, which results in greater capacity to attract talented students and staff
- Connectivity with elements of foreign affairs policy in which research links can lead to an increase in national positioning for Australia.

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

Given that Australia is responsible for a tiny fraction of the global research output, it needs to draw heavily on the vast amount of research conducted outside its borders in order to foster necessary innovation in addressing its economic, social and cultural needs. Some of the drivers of this at government, institutional and researcher level are outlined below:

Government level

- The incentive to be part of large scale programs with multilateral benefits
- The ability to position Australian research quality in the international sphere
- The ability to exert more influence in global challenges thus strengthening foreign policy leverage
- An increased capacity to attract investment into Australia
- Increased access to the global talent pool.

Institutional level

- Research teams learn from international approaches to collaboration
- The attraction of international funding is a critical revenue stream
- International collaboration provides a more international climate for research, research training and the undergraduate experience at Australian universities; also important in strengthening the quality of the research workforce
- Researchers should be able to benchmark activities internationally
- Collaborations assist with building an institutional brand in terms of international engagement and recruitment.

Researcher level

- The need to attract funding from a variety of sources
- Increased exposure to international expertise is beneficial to Australian researchers
- Collaboration on an international level can lead to the development of large scale partnerships
- Increased ability to attract international Post Docs, PhD students and staff
- Opportunity to experience different work cultures and environments.

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

- Limited dedicated funding support
- Major schemes still do not allow matching contributions to large scale international projects
- Timelines are often not aligned from country to country
- Review processes are often different in different countries, which creates difficulties in managing international initiatives – there needs to be an understanding that if partnerships are entered into with international agencies, there are efficiencies to be gained if one country was to accept/use the review outcomes of another
- Immigration issues, visa complexities cause problems
- IP provisions can differ from country to country
- Risk management strategies can differ from country to country – eg in terms of workplace health and safety, particularly around biosafety.
- e-research infrastructure still in early stage of development.

5. Principles and strategies for supporting international research engagement

- The main underpinning principle should be that of research quality and excellence
- Research should be undertaken in areas of strategic importance to Australia in terms of economic, environmental and cultural priorities
- There should be an additional emphasis on collaboration with countries which are going to be key strategic partners in economic terms
- Migration policies should facilitate research partnerships and exchange
- Other countries will provide the competitive expertise to enable Australia to scale up its own activities.