
Inquiry into Australia's Future in Research and Innovation

Victoria University
Response



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1. Introduction

Victoria University has a long and proud history in research that spans the spectrum from fundamental or 'basic' research, to research that is applied and translational in nature. While fundamental research will always have a place within our research activities, our major focus is on applied and translational research. This focus is driven by our central mission and vision "to make the world a better place, through the creation, sharing and use of new knowledge", our desire to find "creative and evidence-based solutions to important contemporary challenges in Australia, Asia and globally", to be a University that makes a rich, lasting and positive impact on our stakeholders, the nation and the world.

Key to the achievement of these goals is a well-functioning national research and innovation system that supports excellence; facilitates collaboration and interaction between industry, community, university and researchers; draws from and takes advantage of diverse skill-sets and backgrounds; and is capable of transforming ideas and knowledge from the 'benchtop' to commercial, social and economic application.

Victoria University therefore welcomes the opportunity to provide input to the Inquiry into Australia's Future in Research and Innovation. The University wishes to draw attention to the following points, each of which is briefly elaborated upon below:

- i. Fostering Collaboration and Mobility
- ii. Innovation and revitalisation
- iii. Australian industry profile
- iv. Small to Medium Enterprises
- v. The reintroduction of a broadened Collaborative Research Networks programme

2. Fostering Collaboration and Mobility

Collaboration and exchange are a pivotal part of any research and innovation system, a point noted by the Cutler Review of Innovation. The University considers that the Commonwealth should do all it can to facilitate and support collaboration. This includes exploring possible new mechanisms to foster collaboration, as well as looking at barriers resulting from existing programmes, regulations or other such instruments.

As an example of the latter, the Commonwealth's ERA initiative 'rewards' research excellence by measuring it according to traditional academic metrics, including publication in top-ranking academic journals. On the other hand, activities that have a direct impact on industry, government and community clients, especially those that provide a commercial return, do not achieve results in terms of ERA recognition. As a consequence, in the pursuit of ERA recognition, researchers avoid many forms of industry collaboration, presenting implications for and coming at a cost to innovation.

A key mechanism for greater innovation is to ensure greater exchange of ideas and interaction between university research, industry and community. The University considers that the Commonwealth should explore mechanisms to facilitate greater mobility and exchange between university researchers, industry and the community. This would involve exploring programs or initiatives that enable university researchers to be embedded within industry and community settings to assist industry and community sectors with the problems

they encounter. Similarly, programmes should be developed that enable industry and community stakeholders to be embedded within university and other research environments, to gain from the experience but also to provide university researchers with knowledge and expertise possessed by industry and community partners. Related to this, the University encourages the government to support the continuance of the Cooperative Research Centres model as a vehicle for mobility, interaction and exchange.

3. Innovation and revitalisation

The role of innovation and research in the revitalisation of economically and socially lagging regions has long been recognised. Therefore, the University considers that the Commonwealth should explore and develop initiatives that recognise the pivotal role of research and innovation to the resuscitation and growth of such areas.

One such option would be to develop policies that recognise the role that universities and other research organisations can play in the economic revitalisation of a region, providing an anchor and focal point for knowledge exchange and innovation. The mechanisms for such benefits are at least two fold. Firstly, universities provide direct opportunities in the form of direct employment for highly-skilled, knowledge and research-based employment. Secondly, universities help to attract highly skilled labour to a region, stimulating indirect employment opportunities with ancillary employers whose activities intersect with or are positively affected by a university's presence. Consider, by way of example, how the research undertaken at Stanford University has, over time, helped transform northern California into today's Silicon Valley powerhouse. The increase in human capital and skills associated with that transformation has acted to raise that region's labour productivity, and provided regional economic and social benefits.

4. Australian Industry Profile

Australian firms tend to be adopters and users of technology and innovation as opposed to being the generators. This has implications for Australia's research and innovation system, especially for policies and procedures developed to encourage and facilitate innovation. It is therefore imperative that any discussion or analysis of Australia's research and innovation system recognise this reality.

Policies and initiatives that are developed would therefore be highly dependent on the aims or desired end. If the desired aim is to generate greater local innovation, then policies would need to be structured to change the current industry practice and support greater development of innovation and research at the local level. It is likely that such a policy would be longer-term in nature. However, if the intent is merely to ensure greater adoption and embrace of innovation, whether locally developed or otherwise, then policies should be developed in such a way as to support and facilitate the adoption by Australian industry of the most innovative tools, instruments and practices.

Finally, Australia's industry profile is such that many Australian companies are local arms or subsidiaries of multi-national corporations with bases overseas. As such, policies should have scope to enable collaboration and foster innovation across borders with parent companies in overseas locations.

5. Small to Medium-Sized Enterprises

The University considers that policies should take into account the needs of different firm sizes. The ability of small to medium-sized enterprises to engage with the research and innovation system is often hampered by a relative lack of resources, experience and knowledge of 'how to do innovation'. The University considers that the government should explore policies that would enable such firms to successfully engage with the research and innovation system. Some of these could include exchange and mobility programmes that are specifically aimed at and designed for those operating or employed in small to medium-sized enterprises.

Firm size should also be taken into account with respect to funding programs and initiatives to foster innovation and research collaboration. Generally, small to medium-sized firms are less able to take advantage of programmes to facilitate and provide incentives for innovation and research, such as the tax incentive schemes to support R&D. The University therefore considers that the Government should consider the development of grant programmes for small to medium-sized enterprises that are explicitly directed towards some research and innovation purpose or goal. Consideration should also be given to considering how current tax incentive schemes could be simplified or 'tweaked' to enable greater use by small and medium sized enterprises.

Further, many government research grant programmes that are designed to foster innovation and collaboration, such as the ARC Linkage programmes, would be considered beyond reach by many small to medium-sized enterprises, assuming they are aware of the programme's existence in the first place. Therefore, policies and initiatives should be developed that are aimed exclusively at small to medium sized enterprises. Such initiatives should be two-fold. Firstly, to raise awareness among small to medium sized enterprises of the innovation system and programmes for support; and further, to design programmes in a such a way so that they are compatible with, desirable to and feasible for adoption by such organisations.

6. The reintroduction of a broadened Collaborative Research Networks programme

The University considers that the Commonwealth should reintroduce the Collaborative Research Networks (CRN) programme. The programme served to raise the overall level of excellence of the national research and innovation system, and by its very nature was aligned with and supported the overwhelmingly accepted ideal of collaboration.

However, the University considers that such a programme be broadened and designed with greater flexibility regarding partnership requirements so that universities have greater scope for collaboration with suitable organisations from the private sector. Such a policy would recognise that innovation and research excellence is not limited to the confines of the public sector, that many private organisations have elements that represent the paragons of research and innovation in their field, representing and providing potential benefits to Australia's universities, the research sector and the national innovation system as a whole.