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# Boosting the Commercial Returns from Research

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Response from Victoria  
University



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## Introduction

Victoria University welcomes the opportunity to provide comment to the **BOOSTING THE COMMERCIAL RETURNS FROM RESEARCH** Discuss Paper. The aims of this review fit well with the our desire and long-held commitment and experience as a university renowned for its deep engagement with industry and community and for producing research that has an impact and makes a tangible difference to industry and to the lives of people.

The University wishes to call the review's attention to a number of matters that it considers require consideration to maximise the commercial returns arising from research. In broad terms, the aim is to promote greater links and interaction between industry, community and the research sector, by:

1. Differentiating between engagement and commercial outcomes
2. Addressing government policy barriers
3. Improving mobility and exchange
4. Applied and translational research and recognising discipline differences
5. Programs for exchange
6. Programs to foster collaboration
7. Tailoring programs to Australia's industry profile
8. Simplification of Intellectual Property

Each of these is briefly discussed below.

### Differentiating between engagement and commercial outcomes

The Discussion Paper often makes mention of collaboration and engagement, and implies that collaboration and engagement are interchangeable with a commercial research outcome. As the University has previously noted:

*Research Engagement: is defined as Research and related activities that are delivered, undertaken or performed with an external partner or partners, spanning the relationships spectrum from official/formalised partnerships through to informal interactions (e.g. running industry workshops for technology transfer, presentations at industry conferences, working with industry bodies, working with Cooperative Research Centres and Collaborative Research Networks, involvement in organisations such as Unigateway, conferences ).<sup>1</sup>*

The outcomes of such engagement and collaboration may or may not result in a commercial outcome. Therefore, if the aim is to produce programs to boost commercial research outcomes, consideration needs to be given to the difference between engagement and collaboration in the broader sense, and activities that result in research commercial outcomes.

Since engagement/collaboration and commercial outcomes are often different things, a related point is the need to apply different metrics to their measurement. Commercial metrics may often not be useful to measure engagement/collaboration; similarly engagement/collaboration metrics are not always useful as a measure of commercial outcomes. The University considers that any metrics that are used

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<sup>1</sup> Victoria University submission to "Assessing the wider benefits arising from university-based research" Discussion Paper (2013).

or developed, while not being overly cumbersome, should also be sophisticated and nuanced. Appropriate recognition should also be given to avoid potential negative or unintended consequences.

Any policies that are developed to promote engagement/collaboration and commercial outcomes in a broader sense should be cognisant of government's large role as a facilitator of engagement and commercial research outcomes, particularly through government promotion of partnerships and via government purchasing power and policies.

Finally, care should be taken to ensure that policies developed/implemented to promote engagement and commercial research outcomes avoid focusing solely on universities that already have well-developed capacity (often a product of decades of public investment) but be struck so as to enable the entire sector to effectively engage with industry/community and boost commercial research outcomes.

### **Addressing Government Policy Barriers**

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, the aims outlined in the Discussion Paper are to reward/recognise research activity performance that has a direct impact on industry, government and community clients, especially those that provide a commercial return. Often, the latter form of research engagement results in activities that do not achieve results in terms of ERA recognition, and indeed, ERA provides direct disincentives to such activities. The result is a disconnect between the aims of ERA and the aims of greater industry engagement and research commercialisation that requires resolution. The University considers that this must be addressed to achieve greater research commercialisation, in particular by excising those elements of ERA that provide a direct disincentive for undertaking collaborative/engagement activities with industry and community and thwarting any resultant commercial research opportunities.

### **Improving mobility and exchange**

A key mechanism for greater research commercialisation is to ensure greater exchange of ideas and interaction between university research, industry and community. The discussion paper notes that the presence of researchers in Australian industry is low by international standards.

The University considers that the Commonwealth should explore mechanisms to facilitate greater researcher and industry mobility. The programs or initiatives should explore ways to enable researchers to be embedded within industry settings and assist with problems encountered by industry. Similarly, programs should enable industry participants to be embedded within university environments to gain from the experience but also to provide university researchers with knowledge and expertise of industry. 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.

### **Applied and translational research and recognising discipline differences**

Research is often conceived as operating along a spectrum, with fundamental or basic research at one end, and applied and translational at the other. Boosting the commercial activities of research implies greater activity at the applied and translation end of the spectrum. This is because applied and translational research is envisaged as that which is '*motivated*' to create and demonstrate practical use of fundamental knowledge. In the case of translational research, it goes further than '*demonstration*' towards *adoption* and/or *change* in institutional and/or social structures and in human practice and

custom. This may be in an industry setting such as through the adoption of a new and improved production process, but similarly it could apply through the adoption of new clinical practice in health or social policy settings.

It is easily seen that the kind of applied and translational research outcome will be different for different disciplines. Improved production processes for discreet products would be more likely to arise from research activity in the engineering, health and science disciplines, while the humanities and social sciences would likely have outcomes that have less tangible and less easily measured benefits in commercial terms. However, in a broader context, each could be shown to provide economic benefits. The difference would be in terms of whether those benefits are direct or indirect, easily measured or less tangible.

The University considers that both types of outcome should be accounted for within any program designed to boost the commercial outcomes associated with research.

### **Programs for Exchange**

Victoria University currently has a website that showcases various technologies produced by its researchers. The aim of this website is to advertise commercial opportunities arising from Victoria University research to industry. No doubt, other universities have similar websites and programs.

The University considers that such a program could be further developed to be sector-wide. It would involve the creation of a website or similar platform where universities and research organisations can advise potential industry and community partners of their research 'wares', but similarly, the website could be used by industry and community to advertise requirements or to express a desire for research collaboration. The benefits of a sectoral-wide program are that it provides a 'one-stop shop', an easily located central location for interaction and exchange. Consideration should also be given to international exchanges. Indeed, the Government should explore whether such an international exchange currently exists, and determine if it is a suitable platform for Australian industry, community and researchers.

### **Tailoring programs to Australia's industry profile**

As the discussion paper notes, Australian industry tends to be adopters and users of technology and innovation as opposed to being the generators. The University considers that policies and procedures that are developed to encourage greater commercial research outcomes must be structured to recognise this reality, and where possible, designed so as to encourage and support new and emerging technologies, systems and industries. Given that many Australian companies are local arms of multi-national corporations with bases overseas, policies should have scope to enable collaboration with parent companies in overseas locations.

### **Small and Medium Sized Enterprises**

The University considers that policies should take into account the needs of different firm sizes. The ability for small to medium sized enterprises to engage with university research is often hampered by a relative lack of resources, or a lack of experience and knowledge of how to optimally engage with the research sector. The University considers that the government should explore policies that would enable each firm type to successfully engage with the research community.

Firm size should also be taken into account with respect to funding programs. Generally, smaller firms have less ability to take advantage of existing programs to facilitate and provide incentives for collaborations, such as the tax incentive schemes. Such firms would instead be better served by grant programs that inject funds directly towards some purpose or goal. The University considers that the Government should consider various grant options to enable greater collaboration and boost research commercial activities. 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.

### **Simplification of Intellectual Property**

The University considers that greater international and research commercial outcomes would be facilitated by simplifying the requirements and regulations around intellectual property and broadening the definition of benefits. As an example, the University considers an approach worth exploring is that taken by the Defence Science Technology Organisation, which provides its intellectual property to industry in order to enhance defence capability while also seeking to generate national wealth creation, sometimes at the expense of its own revenue creation.

### **Problems of Confidentiality**

Greater interaction and collaboration with the hope for greater commercial outcomes will often entail greater confidentiality with respect to research activities. Often, the result is that research outcomes cannot be released, and the ability to apply research outcomes to others is limited, meaning that the potential benefits arising from a publicly funded university research are limited. The impact may also be more direct, in the limited ability for university researchers to report or publish outcomes arising from the research interaction, with implications for the university's performance in other government programs (such as ERA). Care must be given to ensure that this is addressed in the design of any program or initiative to encourage greater commercial outcomes in research.