



Victorian TAFE
Association



The Education and Employment Committee inquiry into matters that ensure,
**Australia's tertiary system can meet the needs of a future labour force focused
on innovation and creativity**

This submission is made by the Victorian TAFE Association (VTA). The VTA is the peak body for Victoria's public vocational education and training (VET) providers. VTA members include four dual sector Universities and twelve stand-alone public TAFE Institutes. Services provided by VTA to members include public policy advocacy, workforce relations advice, education projects, research, government liaison and representation, and professional development.

VTA members offer a diverse range of programs and services delivering and supporting Vocational Education and Training (VET), and have close relationships with industry - including large, medium and small enterprises. In addition, its members comprise four technologically oriented dual sector universities: RMIT University, Swinburne University of Technology, Victoria University and Federation University Australia. Five Victorian TAFE Institutes deliver their own higher education qualifications and all have close working relationships with universities.

The VTA welcomes the opportunity to respond to the parliamentary inquiry into innovation and creativity to ensure Australia's tertiary system can meet the country's future labour force requirements. The inquiry is focussed on

1. The extent to which students are graduating with the skills needed for the jobs of today and of the future.
2. Matters relating to laws and regulations that may act as a barrier to education providers being able to offer qualifications that meet the needs of the new economy and fastest growing sectors.
3. Factors that discourage closer partnerships between industry: in particular small and medium enterprises; the research sector and education providers; including but not limited to: intellectual property; technology transfer; and rapid commercialisation.
4. Relationships between tertiary education entrepreneurship programs and private incubator and accelerators.



VTA Submission: Inquiry into Innovation and Creativity

The focus of this submission is that the inquiry has the opportunity to look beyond the university sector as the predominant and even sole site of ‘innovation and creativity’ for the purpose of research and partnering with industry within the broader perspective of innovation and the associated incentives to innovate, commercialise and disseminate that innovation. We argue that public VET providers can play a much greater and central role in this process. TAFE, in particular, is a missing link.

Governments at both state and Commonwealth levels acknowledge the vital contributions of small to medium enterprises (SMEs) to the ‘social and economic health of our local and regional communities’ (Billson 2014 p.4). SMEs are also recognised as ‘dynamic, easily adaptable and flexible’ essential ingredients for the global economy (Petkovska 2015 p.1). While large companies, often foreign controlled, can afford to commission research with universities, for SMEs it is more about the ‘D’ in Research & Development. Thus, SMEs do not tend to have strong relationships with university research programs. Instead, they link in with their local public VET provider. Toner and Dalitz (2012, p.1) argue in their paper “[Vocational Education and Training: the ‘terra incognita’ of Australian Innovation Policy](#)” that:

- *the innovation studies literature has established the central role of the VET system and VET trained workers in technology generation, diffusion and incremental innovation, and*
- *the pattern of innovation in Australia makes firms more reliant on VET skills to implement innovation compared to many other OECD nations.*

Despite this, they suggest, the VET system is largely excluded from government innovation policy and programs in Australia. They note that:

Empirical data for this contention is drawn from a textual analysis of Federal government innovation policy statements, government sponsored reviews of the Australian innovation system and charting the membership of key government innovation policy advisory structures.

However, VET trained staff and public VET providers have the capacity, and are, contributing to significant research and development. Examples of existing research and innovative capacity of public VET providers involving partnerships with industry are appended to this submission. These cover advanced manufacturing, sustainable energy and technologies and water management.

Whittingham, Ferrier and Trood (2003) noted that the VET sector is not involved to the extent it should be in the national innovation system as represented by Australia’s co-operative research centres. Inspection of the lists of participating organisations suggests that this persists, although two Victorian dual sector institutions (Swinburne University of Technology and RMIT University) are participants in a number of CRCs.

In addition, Herrmann and Peine (2012) argue that the interaction between scientists and non-science employees in a pharmaceutical firm seemed to be a vital source of ideas for incremental or even radical product innovations and the combination of these employees’ skills and scientific



VTA Submission: Inquiry into Innovation and Creativity

knowledge seems to multiply rather than just add to innovative practice. Thus, even such major R & D involves input from VET trained staff as well as the conventional research and commercialisation roles ascribed to scientists, at least within innovative companies.

Moreover, in a range of other countries admired for their abilities to commercialise innovation, such as Finland, Germany and the United States, public vocational colleges are an important part of national innovation policies. They include in their activities a broad range of consultancy, technology demonstration and applied research and development functions. Canada's publicly supported colleges, institutes and polytechnics contribute to the research and innovation cycle in Canada through applied research and partnerships with companies. 80% of colleges and institutes had a policy on intellectual property and 85% of respondents reported partnerships with universities. The contribution of Canadian colleges and institutes to this cycle of innovation and research is seen as crucial to their knowledge-based economy (Colleges and Institutes Canada 2014). A recent (2015) LH Martin (University of Melbourne) study mission to Canada explored this applied research and innovation program in greater detail (see Schubert 2016). VTA contends that such contributions to innovation should be part of a public provider's mission in Australia as well, and should be explored further.

Finally, and as Guthrie and Dawe (2004, p.18) noted:

Australian Government policy needs to move from this 'scientific discovery' notion of innovation to one which sees it as a continuous learning process. This is the way innovation occurs in the major industries on which Australia's economy rests. These industries are indirect users of research and development, and innovation is largely based on re-combining or adapting knowledge. It is in this area that the VET sector has played, and will continue to play, an important role.

In summary, the Victorian TAFE Association urges the Commonwealth Government to incorporate Australia's public VET providers into a structured program of innovation, research and development.

The Commonwealth of Australia (2016) National Innovation and Science Agenda for the ideas boom supports research that works to find solutions to 'real world problems' through 'partnerships with industry'. TAFEs are well positioned to play a vital role as it has well established relationships with industry: businesses, TAFEs. Students and business can derive important benefits from projects that create innovative solutions to contemporary issues. Crucial returns on investments for this type of research will be realised more directly in the economy, sooner.

The VTA looks forward to discussing this proposition with you further.

References cited

Billson, B 2014 - Address to the G20 Agenda for Growth: Opportunities for small and medium enterprises conference, Melbourne viewed 6th March, 2015 at <http://bfb.ministers.treasury.gov.au/speech/015-2014/>

VTA Submission: Inquiry into Innovation and Creativity



Colleges and Institutes Canada 2014, College and Institute Applied Research – Accelerating business and community innovation: Environmental scan 2013-14, Ontario, Colleges and Institutes Canada

Commonwealth of Australia 2016, National Innovation and Science Agenda viewed on 7th March, 2016 <http://www.innovation.gov.au/>

Guthrie, H & Dawe, S 2004, Overview. In Dawe, S (Ed.), *Vocational education and training and innovation; Research readings*, NCVET, Adelaide.

Herrmann, A and Peine A 2011, When ‘national innovation system’ meet ‘varieties of capitalism’ arguments on labour qualifications: On the skill types and scientific knowledge needed for radical and incremental product innovations, *Research Policy*, 40, 687–701

Petkovska, T 2015, The role and importance of innovation in business of small and medium enterprises, *Economic Development*, 17, 1/2, 55-74

Schubert R, 2016, From beer to aerospace, *Campus Review*, January 19th, 2016

Toner, P & Dalitz, R 2012, Vocational Education and Training: the ‘terra incognita’ of Australian Innovation Policy, *International Joseph A. Schumpeter Society*

Whittingham, K, Ferrier, F & Trood, C 2003, *Going boldly into the future: VET and the National Innovation System*, NCVET, Adelaide.

Key Contact

Andrew Williamson
Executive Director
Victorian TAFE Association
T 03 9639 8100

10 March 2016