



TAFE Directors Australia Response to Government The Cutler Innovation Review

Key to Knowledge Economy is Innovation and Applied Learning

Introduction

Improved workforce productivity is fundamental to Australia's future economic growth and community well-being. This will require a much greater emphasis on innovation and improving and utilising the innovative capability of the whole Australian workforce and on the role of TAFE in achieving this.

Sources of Innovation

Innovation involves the introduction of something new to an existing workplace or community setting with the aim of improving the outcomes for that organisation. As defined by Innovation and Business Skills Australia (IBSA),

"Innovation is coming up with new ideas, or developing new uses for old ideas and translating this into competitive advantage or economic value."¹

Industry innovation may originate with new research and newly invented technology but, while important, this is only one source of innovation and usually has a long lead time. Given the relatively small Australian economy and the preponderance of small and medium enterprises, a relatively greater and more immediate innovative impact is likely to come from the adaptation of imported technology and from changes in work methods and practices.

The Productivity Commission has emphasised that, whatever its source, 'new knowledge' cannot be considered innovative until it is effectively transferred, adapted and integrated with productive activity in workplaces.²

¹ IBSA, 2007, Blueprint for Action on Innovation
<http://www.ibsa.org.au/content/latestnews/blueprint.html>

² Laplagne, P. and Bensted, L. 1999, *The Role of Training and Innovation in Workplace Performance*, Productivity Commission Staff Research Paper, AusInfo, Canberra, 2007

Productivity Commission research has also demonstrated the interdependence of training and innovation in maximising increases in productivity, especially in relatively efficient enterprises:

- “training and innovation are more prevalent in workplaces experiencing strong labour productivity growth;
- introducing innovation in isolation can promote labour productivity growth, but its returns are increased by the presence of training. Conversely, the evidence suggests that training has been of significant benefit to labour productivity growth only when combined with innovation.”³

Background

The need for knowledge-based economies to recognise and foster workplaces as sites of new knowledge production was clearly articulated by Michael Gibbons as early as 1994 who concluded that, in a knowledge economy, sustained growth in productivity is dependent on a workforce-wide capability to source and produce new knowledge in the workplace and on a workforce culture of continuous innovation.⁴

The productivity gains which flow from linking of workforce education and training with enterprise-based innovation continue to be demonstrated in international surveys of innovation.⁵

Historically, however, Australian innovation and education policies have reflected and encouraged a compartmentalised approach to new knowledge and its utilisation.

Australia’s national innovation system has tended to focus on university-based research and a top-down approach to its dissemination and applications. Consequently, while Australia’s university based ‘early stage’ research is internationally comparable, industry-based research, development and innovation falls considerably short of that undertaken by Australia’s major trading partners and OECD competitors.⁶

³ Laplagne, P. and Bensted, L. 1999, *The Role of Training and Innovation in Workplace Performance*, Productivity Commission Staff Research Paper, AusInfo, Canberra, 2007

⁴ Michael, et.al., 1994, *The New Production of Knowledge: The dynamics of science and research in contemporary societies*, Sage, London;

⁵ OECD Science, Technology and Industry Scoreboard 2007, Innovation and Performance in the Global Economy, www.oecd.org/sti/scoreboard

⁶ Cutler & Company Pty Ltd 2008, *Venturous Australia Report*, Melbourne, Australia, p.7, see also Annex 12.

Australian tertiary education more generally has also been characterised by a division between the role of universities as knowledge producers and that of TAFE in providing for 'knowledge users'.⁷

Thus, while Australian VET has become an international leader in establishing high quality industry-wide training standards and qualifications, at least at the system level, this has not extended to include an explicit role for VET in enterprise-based applied research and workforce innovation.

TDA endorses and actively supports many aspects of the national training system, its qualifications and quality criteria. In particular, the emphasis on flexible modes of delivery, new learning technologies and recognition of prior learning has provided a greatly increased number of workers with the access they need to skills and qualifications. However, there is strong evidence that some of the VET system parameters are unnecessarily rigid and severely limit the scope for enterprises, TAFE institutes and governments to harness the potential of TAFE as an important public investment in knowledge production and innovation in the workplace. Of particular concern to TDA member institutes is the limited scope for individual TAFE institutes to engage bilaterally in innovative partnerships with leading enterprises to collaboratively drive workforce development in emerging industries.

The systemic constraints about which concern is most frequently expressed include the insistence on national uniformity and compliance, rather than an enterprising training culture, the extremely lengthy process of establishing industry wide consensus as a prerequisite for updating the content of national qualifications and government funding arrangements that are increasingly predicated on presumptions of minimum cost and minimum time requirements for the achievement of standardised qualifications.

The current focus of governments on the low cost delivery of a larger quantum of workers trained to existing, rather than future, job requirements is reflected in the Australian Government's recent *Skilling Australia* program.

This government perspective on Australia's national VET system is underpinned by an increasingly rigid 'market' ideology which, in contrast to most of Australia's OECD comparator economies, excludes a distinguishing role for TAFE as the public provider of non-university tertiary education. While training to meet existing skill needs is an essential role for TAFE, its impact on productivity growth will be relatively short term unless it is supplemented by a clearer charter for

⁷ According to the 'Kangan' report of 1974, TAFE was for 'knowledge users, not knowledge producers'. (see Para 2.2 of the 1974 ACOTAFE Report).

TAFE Institutes' engagement in more strategic workforce development, applied research and innovation.

Recommended Action 1:

There is an urgent need for COAG to adopt and promulgate an explicit charter for the public provision of non-university tertiary education by TAFE institutes, this charter to include a role for TAFE in applied research and innovation in partnership with leading enterprises and emerging industry sectors.

Recent Developments - the Cutler and Bradley Reviews

The recent report of the National Innovation System Review acknowledges the need for greater support and facilitation of industry-based research. It also recognises the role of the VET-trained workforce in implementing innovative technology, noting that "the role of crafts and trades in innovation has been massively neglected, particularly in the important areas of continuing incremental innovation in the workplace"⁸.

TDA welcomes this recognition but regrets that the Report's recommendations do not include any specific measures for rectifying this neglect and for better harnessing the innovative capacity of the VET-trained workforce as knowledge producers and drivers of innovation. It is possible that work-based innovation could be encouraged and supported by a number of the measures already recommended in Chapters 7, 8 and 9 of the Report. However, given Australia's top-down innovation culture, these measures are unlikely to be extended to include VET-workforce based innovation unless express provision is made for this.

The recent '**Bradley Report**' on Australian Higher Education offers a vision for a broader, more dynamic and integrated tertiary education sector. This will demand from governments a much clearer articulation of the role of TAFE as the non-university public provider. However, the Report's specific discussion of innovation is largely limited to the research function of public universities and this now needs to be extended to a detailed consideration of the ways in which TAFE, as part of this 'new' tertiary sector, can become more directly and creatively involved with innovative economic activity.

⁸ Cutler & Company Pty Ltd 2008, *Venturous Australia Report*, Melbourne, Australia, Ch.5, p.48.

Current policies on innovation and post-school education fail to recognise that the majority of the workforce on which successful innovation depends will be TAFE trained. They underestimate the current and potential contribution of TAFE and TAFE-trained workers to the economy, especially in terms of their roles in skill formation and knowledge transfer.

If governments, industry and individuals are to realise the full benefit of their investment in knowledge production and its application, there is a need for systemic reform which gives greater weight and recognition to the innovative and knowledge-producing skills and practices of the TAFE-trained workforce. The Australian Government's responsibility to encourage innovation across all tertiary education has been acknowledged to some extent by the 2008 budget decision to establish the Educational Infrastructure Fund (EIF).

TDA welcomes this initiative. The EIF arrangements now need to be matched with direct federal support for the recurrent costs of TAFE-industry collaboration in applied research and innovation. TDA envisages that this support would be accessed through a grant application process similar to that which applies for some components of ARC and NMHRC funding and that, as with the EIF, priority would be given to those projects in which the TAFE and industry partners were also willing to invest. TDA is of the view that the National Centre for Research in Vocational Education (NCVER) would be the most suitable national body to advise government on appropriate arrangements for the fund's operation.

Recommended Action 2:

- i) The Australian Government establish a Vocational Innovation Fund to structure and facilitate TAFE-business partnership investments in the research and development of innovative practices and technologies in workplaces.**
- ii) The funds available be commensurate with TAFE's proportionate contribution to a skilled and innovative skilled workforce.**
- iii) NCVER be requested to advise on the appropriate arrangements for the establishment and initial administration of the Fund.**

The TDA Position

Recent TDA research shows a strong commitment to innovative practice and the development of an innovative culture with the great majority of TAFE institutes individually or jointly engaged in one or more specific innovative initiatives. In the great majority of cases these projects originate with individual TAFE Institute-enterprise partnerships rather than with governments. They include several examples of TAFE collaboration across state boundaries to form national centres of excellence which provide a new source of applied research and development for particular industry sectors. With appropriate federal support and funding, these national centres have the potential to work with the CRCs to develop the technician level workforce on whom the implementation of CRC research results will depend.

Recommended Action 3:

Federal funding for TAFE–industry innovation through the proposed Vocational Innovation Fund should give particular encouragement to the formation of multi-institute TAFE national centres of excellence with the capacity to drive workforce innovation in strategic industry sectors.

More broadly, the diversity of TAFE innovative projects is a reflection of the diversity of TAFE clients, environments and enterprise technology and capabilities. Thus, the way in which innovation is interpreted and realised in practice is necessarily situation-specific.⁹

But, while this diversity means that there is no generalised and universally appropriate 'best practice' model for innovation in TAFE, it is possible to discern, from the TDA research, a number of principles which underpin the success or otherwise of TAFE's innovative practice. These include:

1. *Successful workplace innovation invariably depends on direct and ongoing collaboration with specific clients and stakeholders.*
 - Direct TAFE-enterprise partnerships at the local level need to be actively encouraged. Real increases in the productivity of individual enterprises will come from a greater focus on collaboration between individual TAFE Institutes and the businesses and community organisations of their regions.

⁹ TAFE Directors Australia, *TAFE Australia – Driving an Innovation Agenda*, A snapshot report, 17 April 2008

- The industry-led national training system provides a useful reference framework of industry-wide standards. But innovative projects require much more direct and localised engagement with industry, including access to more specific industry advisory arrangements often extending to formal partnership arrangements.
- The NSW Department of Education and Training (DET) has also recently completed a study which shows how this directly collaborative approach to workforce productivity benefits the business bottom line.¹⁰
- By definition this involves some new and unfamiliar content and applications and requires both a degree of risk tolerance and a capacity to build on the results.
- These initiatives have a high probability of success providing they are project managed through a process of continuous consultation, review and adjustment.

2. *Generic skills are the building blocks for innovative thinking.*

Current national training packages require that literacy, numeracy and information technology skills be acquired only to the level required for specific jobs in the current economy. This often limits adult learners to a level below the Year 9 benchmark that the ACER has identified as the key predictor of effective workforce participation in a knowledge economy. Australia noticeably lags its major OECD comparator countries in this regard.¹¹

Recommended Action 4:

The COAG targets should be revised to include system-wide minimum standards for, and standardised assessment of, adult literacy, numeracy and information technology competence for all graduates of national VET qualifications with a requirement for the introduction and funded delivery of these target standards from 2010.

3. *Several systemic constraints and anomalies are seriously limiting the ability of TAFE institutes to respond to the knowledge production needs of their individual and organisational clients. These include:*

¹⁰Mitchell, J. 2008. *Improving the bottom line - why industry values partnerships with TAFE NSW*. NSW Department of Education and Training. A summary of the report can be found at:

https://www.tafensw.edu.au/employerservices/national/docs/The_Bottom_Line_Why_Industry_Values_TAFE_NSW.pdf

¹¹ For a useful summary of this problem see Roberts, Anita, 'An age-old problem' in *Campus Review*, 3 June 2008, p.11.

- *Some aspects of the national training system.* Individual competency standards and the quality principles of the AQTF-07 are helpful in ensuring relevance and national consistency. However a very long lead time is required for changes in the content of national training qualifications. This inhibits successful innovative practice which, for employers, is often motivated by the competitive edge to be gained from new and differentiated knowledge and skills rather than those which are based on nationally uniform standards. These national processes can thus seriously retard the introduction of new technology where this requires the introduction of new, and often still evolving, competencies and/or the discarding of competencies which have become obsolete or incompatible with current technology, production processes and work practices. This is a particularly pressing problem in the area of skills for sustainability where unnecessary delays may compromise the achievement of governments' other economic and social objectives. (One example is in automotive engineering training where most apprentices are still being graduated with little or no knowledge of green car technology.)

Recommended Action 5:

The National Quality Council should expedite the introduction of more flexible course and qualification accreditation arrangements for new qualifications with the aim of facilitating the timely delivery of innovative content, skills and aptitudes on an enterprise and regionally specific basis.

- *Public sector regulatory frameworks can limit the flexibility and responsiveness of TAFE institutes.* This is a particular concern with respect to restrictive employment arrangements which can seriously curtail the scope for interaction between TAFE teaching staff and client workplaces. Other restrictive public sector practices such as communications protocols and rules governing overseas and national travel requirements can also limit the ability of TAFE institutes to be both globally informed and businesslike in their relations with the business world.

Recommended Action 6

That the federal structural adjustment funds

currently available to public universities be extended to TAFE institutes to enable them to rapidly improve their governance arrangements, organisational flexibility and competitive efficiency.

- *The prevalence of 'once-only' government funding for new and innovative approaches to training.* New initiatives are often funded by governments for political or other relatively short-term purposes and TAFE institutes are unable to evaluate, refine, modify and replicate successful innovative practices. At times, sudden cessation of funding has forced institutes to exit incomplete projects.

Recommended Action 7:

The proposed federal Vocational Innovation Fund make adequate provision for appropriate post-implementation trials, modification and evaluation of approved innovation projects.

- *The lack of Institute-based triennial capital planning and funding.* The uncertainty which surrounds TAFE capital funding limits the ability of TAFE institutes to commit to industry partnerships which require a significant equipment/facility input from TAFE.

Combined with the 'once-only' approach to government funding of institute-specific initiatives, the uncertainty of future capital funding is particularly limiting in regional and rural Australia where the TAFE institute often has better facilities than many of its industry clients.

The use of these facilities for pilot and demonstration projects can be a highly cost-effective way of testing innovative techniques and methods and disseminating them to those small and medium enterprises which usually cannot afford, and are not exposed to, the research and development strategies in which universities and very large companies engage.

Recommended Action 8:

The introduction, by January 2010, of integrated State/Commonwealth triennial capital planning on a TAFE institute specific basis.

Summary of Recommendations to Government

TDA recommends:

1. COAG's adoption and promulgation of a clear charter for the public provision of non-university tertiary education by TAFE institutes, this charter to include a role for TAFE in applied research and innovation in partnership with leading enterprises and emerging industry sectors.
2. The establishment of a federal Vocational Innovation Fund to support TAFE-business partnership investments in innovative practices and technologies in workplaces, at a level of funding commensurate with TAFE's proportionate contribution to a skilled and innovative workforce and with NCVET invited to advise government on appropriate governance and initial operational arrangements for the fund.
3. Federal funding for TAFE-industry innovation through the proposed Vocational Innovation Fund should give particular encouragement to the formation of multi-institute TAFE national centres of excellence with the capacity to drive workforce innovation in strategic industry sectors.
4. The introduction and funded delivery, by 2010, of VET-wide minimum standards and standardised assessment of adult literacy, numeracy and information technology competence for all graduates of national VET qualifications.
5. The expedited introduction of more flexible national course and qualification accreditation arrangements which enable the timely delivery of innovative content and aptitudes on an enterprise and/or regionally specific basis.

6. That the federal structural adjustment funds currently available to public universities be extended to TAFE institutes to enable them to rapidly improve their governance arrangements, organisational flexibility and competitive efficiency.
7. The proposed federal Vocational Innovation Fund make adequate provision for appropriate post-implementation trials, modification and evaluation of approved innovation projects.
8. The introduction, by January 2010, of integrated State/Commonwealth triennial capital planning on a TAFE Institute specific basis.

OUR MEMBERSHIP

TAFE Directors Australia has membership of 59 TAFE Institutes, across all states and territories, and the Australian Pacific Technical College, in which enrolments of public VET students total some 1.4M a year, with another 500,000 students in various non accredited or industry-funded training courses. Internationally, TAFE institutes are operating in over 80 countries around the world. Our members are leading innovative and sustainable international programs that bring economic, cultural and social returns to institutions, communities and industry.

Australia's Technical and Further Education (TAFE) network remains unique: in its continued quality leadership across a 75% market share for a nation's basic skills, infrastructure and resource across geography of cities, suburbs, regional centres and remote communities, and in some cases 'dual sector' TAFE and universities combined institutions (Charles Darwin University, RMIT, Swinburne University of Technology, Victoria University, University of Ballarat).

This marketplace provides perspective for TAFE Directors Australia to articulate its vision of the Australian tertiary sector, and the role of VET, and the public provider TAFE Institute network.

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