



INNOVATION AND BUSINESS SKILLS AUSTRALIA

**Submission to the Review of the National
Innovation System**

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SUBMISSION TO THE REVIEW OF THE NATIONAL INNOVATION SYSTEM

Declaration of interest

Innovation and Business Skills Australia (IBSA) is a declared Industry Skills Council (ISC) and as such receives core and project funding from the Commonwealth Department of Education, Employment and Workplace Relations (DEEWR) for core roles.

IBSA also raises commercial revenue through the operation of a bookshop which sells nationally endorsed Training Packages, training and assessment resources, learning materials and reports for the vocational education and training sector.

As an Industry Skills Council, IBSA is required to consult with and represent the interests of six significant sectors of Australian industry in relation to their workforce development needs.

The sectors are:

- business services
- cultural and creative industries
- education
- financial services
- information and communication technologies, and
- printing and graphic arts.

IBSA's interest in the National Review of the Innovation System is in relation to the skills and training needs of the Australian workforce. IBSA's expertise is in the field of vocational education and training (VET), and so the scope of this submission is primarily focussed on questions around educating and equipping a creative and innovative workforce.

Executive Summary

The skills and capabilities of the current and future workforce are central to the success of an innovation economy. There are critical points in Australia's systems for workforce development that the Review will need to tackle. Based on IBSA's work with stakeholders in industry and the VET system, a need can be seen for new approaches and solutions for equipping individuals and organisations with the capabilities required for success in an innovation economy.

The Review should make recommendations that will:

- Ensure that all Australians have the core skills (language, literacy and numeracy) on which to build their capability for innovation. There is a need for:
 - the development of a national adult literacy policy
 - expansion and enhancement of the Workplace English Language and Literacy program
 - Australia's participation in the OECD longitudinal study to assess adult competencies
- Equip all workforce participants with ICT skills and understanding.
- Develop education and training approaches for the development of group or community capability to support the collaboration and teamwork required by innovation.
- Build flexibility into the VET system so that it can effectively support skills development for existing workers. There is a need for:
 - funded training places to be available for existing workers to acquire skill sets that build innovative capacity
 - expansion and national roll out of successful pilots for the engagement of SMEs in formal training
 - cross-governmental approaches to develop creative incentives that encourage employers to build the skills of their existing workforce
- Support ongoing development for all VET professionals to build their capacity to train an innovative workforce.
- Communicate findings from the Review to all other government portfolios to promote the development of integrated and internally coherent policy across the whole of government.

Innovation can be considered from many perspectives and be advanced in a variety of ways. IBSA recognises that it has an important role to play as an enabler of innovation by contributing to workforce capability and capacity building. Actions that IBSA can take to support innovation through workforce development have been identified in IBSA's Blueprint for Action on Innovation (attached). In implementing the Blueprint IBSA aims to continue working with key players to advance Australia's national innovation system.

Background

Innovation and Business Skills Australia (IBSA) was established in 2004 bringing together five former national industry training advisory bodies. The six industries IBSA represents (business services, cultural and creative industries, financial services, education, information and communications technologies and printing and graphic arts) are united by important common themes. They have a prevalence of higher level cognitive, creative and problem solving skills, increasing reliance on new technologies and an emphasis on cross-sectoral support or enabling functions; and a key combining ingredient of innovation. These industries not only rely on innovation within them, they are also drivers of innovation within all other industries.

As a formally recognised Industry Skills Council, IBSA is responsible for the development and maintenance of nationally endorsed Training Packages that describe the skills and knowledge needed to perform effectively in the workplace. Linking between industry and the vocational education and training (VET) system, IBSA is in a position to build workforce development solutions that will support the expansion of Australia's innovative capacity.

The Australian Government funds eleven Industry Skills Councils for the specific purposes of:

- developing and maintaining training materials, and specifically nationally endorsed industry Training Packages
- provision of integrated industry advice to Skills Australia, the new Statutory Body, and enterprises
- engaging in and supporting enterprises in training and workforce development solutions
- working with enterprises, employment services providers, training providers and government to allocate the new productivity training places.

IBSA's work to build the innovative capacity of the workforce

Following a successful national search conference in 2007, IBSA developed a Blueprint for Action on Innovation. The Blueprint outlines directions where IBSA can have a national impact on the innovative capacity of the Australian workforce. IBSA's implementation of the Blueprint involves work across a range of areas. Key activities that are underway are outlined below.

Development of high level innovation systems qualifications and skill sets

IBSA has completed a scoping project to identify industry requirements for qualifications and skill sets that equip people to manage, build and maintain an innovative workforce and working environment. Through this project skill requirements for many job roles within innovation systems were considered and gaps in the available range of recognised qualifications were identified.

IBSA is now starting work on the development of new skill sets and vocational qualifications, at Vocational Graduate Diploma, Advanced Diploma, Diploma and Certificate IV level, to fill these gaps. When complete the new skill sets and qualifications will form part of the Business Services Training Package, which comprises the nationally endorsed competency

standards, assessment guidelines and qualifications framework for recognised training and assessment in business. The creation of nationally recognised qualifications and skill sets provides employers and employees with consistent, portable statements of competence and the opportunity to identify career pathways and options for further skill development.

Development work will be overseen by IBSA's National Project Reference Group (NPRG) on Innovation, a high-level reference group with expertise in the field of innovation. This work will also be subject to National Quality Council (NQC) processes for the development and endorsement of Training Packages and will involve extensive consultation with industry and the training providers.

Development of a framework for innovative capability

In recognition of the fact that organisations need access to a wide range of approaches for capability development, IBSA is developing a framework that will help organisations to assess and build the capacity of their workforce for innovation. The framework will be a mechanism for identifying the skills, capabilities, attributes and behaviours required for innovation within an organisation. It will allow employers and individuals to consider their current capacity in relation to organisational requirements and identify opportunities for further development, ranging from formal accredited training to informal options for tacit learning.

It is intended that the final product will be freely available from IBSA, with much of the content available online. The framework development is planned for completion in December 2008. Work within this project is also being overseen by IBSA's NPRG on Innovation.

Engaging small and micro businesses in skills development

Small businesses make up more than 90% of the total number of businesses in Australia, employ approximately 40% of the workforce and produce one third of Australia's wealth. The ability to innovate is a key to success for many small businesses. Small and micro business operators look for swift solutions to their identified capability needs, but few of them engage with formal training.

IBSA is partnering with business advisory organisations to develop mechanisms for engaging small businesses with skill development. The project looks beyond formal skills to encompass the development of attributes and behaviours needed in business management.

The work will link with activity underway by other agencies such as Enterprise Connect and Small Business Solutions Queensland.

Collaborative project to build innovative practice in training and assessment

IBSA is the custodian of the Training and Assessment Training Package (TAA04) which contains the Certificate IV in Training and Assessment. This qualification is crucial to the VET sector because the Australian Quality Training Framework (AQTF) requires that it be held by all trainers and assessors delivering nationally accredited training. As a result the way in which the Certificate IV in Training and Assessment is delivered has the potential to affect the quality of training and assessment throughout the whole VET system.

IBSA aims to build the capacity of the VET workforce by supporting professional development for trainers and assessors delivering the Certificate IV in Training and Assessment. In 2008 IBSA is conducting a pilot project to test the effectiveness of wiki technology for encouraging VET professionals to share examples of innovative practice in the delivery and assessment of the Certificate IV in Training and Assessment. The wiki will be used to support collaboration between trainers and assessors and the creation of new shared resources to support their practice.

If successful the project could provide a model for building a professional focus on innovative practice in the delivery and assessment of other nationally accredited qualifications.

Issues the Review must address

The skills and capabilities of the current and future workforce are central to the success of an innovation economy. There are critical points in Australia's systems for workforce development that the Review will need to tackle. IBSA operates within the boundaries of the national VET system, however to drive innovation it is necessary to work creatively and flexibly to build workforce development solutions that meet the needs of industry.

Policies for building Australia's capacity for innovation must transcend boundaries between government departments, industries and jurisdictions. To deliver the benefits of a national innovation system Australia will need truly integrated and internally coherent policy across the whole of government.

Recognising the importance of core skills

In 2006 the Australian Bureau of Statistics (ABS) conducted the Australian Literacy and Lifeskills Survey (ALLS) as part of an internationally comparative assessment of adult literacy, numeracy and problem solving skills. Results of the survey confirmed what Industry Skills Councils and many employers and training providers already knew. Large proportions of the Australian workforce do not have adequate literacy, numeracy or problem solving skills and could not be expected to cope with the demands of work or learning in a knowledge economy.

The survey revealed that:

- 46% of Australian adults (more than 7 million people) have poor or very poor literacy skills and could have difficulty reading written instructions, communicating via email, filling in forms or interpreting simple graphs
- 53% of Australian adults (almost 8 million people) have poor or very poor numeracy skills and could have difficulty completing time sheets, recording accurate measurements or calculating correct change
- 70% of Australian adults (more than 10 million people) have below average problem solving skills and could have difficulty working independently, following non-routine directions or finding workable solutions for new challenges

The large proportion of adult Australians with poor or very poor literacy and numeracy skills has grave implications for the skilling of existing workers. Adequate literacy skills are needed to effectively participate in structured learning and training (generally identified as level 3 on a five point scale – very poor and poor skills represent levels 1 and 2). If programs to lift the

skills of existing workers, such as DEEWR's Productivity Places Program, ignore the essential underpinning skills of participants then these programs will be doomed to fail.

Little impact has been made on levels of literacy and numeracy skill since the previous ABS survey was conducted in 1996, and during this time Australia has not had a national policy on adult literacy. In fact the Australian and Language Literacy Council, under the National Board of Employment Education and Training, was abolished in 1996 and there has not been a replacement policy, or strategy to redress the national survey results, implemented at the national level.

However, there have been examples of success in the development of workforce literacy skills, most notably the Department of Education, Employment and Workplace Relations (DEEWR) long-running Workplace English Language and Literacy (WELL) program. This program has been implemented in a flexible manner allowing enterprises to develop training programs that are customised to the specific needs of their business. The program has been conducted in a way that recognises the enabling quality of language, literacy and numeracy skills. Outcomes from WELL training for participating enterprises have included:

- Increased productivity and reduced wastage
- Better communication, teamwork and collaboration
- Increased morale and the establishment of a learning culture
- Improved customer relations and quality processes
- Safer workplaces and better compliance with legislation

The WELL program was evaluated in 2006 and found to be an overwhelming success with more than 90% of participating employers reporting that the training benefited their business. Despite the program's success and increasing demand for WELL training from employers, the WELL program budget has only increased marginally. With an expanded program budget, there would be scope to consider strategies for enabling the program to directly support the development of innovative capacity in a wide range of organisations.

IBSA has had the opportunity to gather feedback about the WELL program, and workforce literacy needs, from employers and training providers through ongoing WELL awareness-raising activities conducted in collaboration with other ISCs. This dialogue suggests a number of new strategies that could be used to increase the impact of WELL on workforce capability:

- A funded role for industry training advisors to assist organisations with conducting a training needs analysis and choosing a training provider prior to developing an application for training funding
- Active development of models that allow small business to cluster together to access WELL training – piloting a variety of approaches designed to lift the administrative load from organisations that are too small to have dedicated training or HR personnel to supervise and implement the program
- Extension of the program to allow the development of the higher level literacy and numeracy skills that would support innovative teams – currently the program is restricted to the development of literacy and numeracy skills at lower levels (1-3 on a 5 level scale) while this is hugely beneficial for participating organisations, allowing

organisations to extend the skills of employees will support the development of the collaborative and high performing teams required for innovative activity

Note: the WELL program has two components – WELL training for enterprises and WELL resource developments. IBSA is urging expansion of funding available for the training component of the program.

IBSA is aware that the OECD is developing a program to assess adult competencies with a focus on cognitive and workplace skills for today's working environment – it will include ability to use ICT and general levels of literacy and numeracy. A field trial is planned for 2010 with the first test to take place in 2011. The data collection program will be ongoing, similar to the PISA educational attainment comparisons for 15 year olds, and participation is open to all OECD countries. IBSA is keen for Australia to participate in the data collection program and see potential for this type of information to be used in constructing benchmarks for innovative capacity.

Based on IBSA's work in the area of core skills that underpin successful participation in work and training it can be seen that there is a need for:

- The development of a national adult literacy policy with a focus on ensuring that Australian adults have the underpinning skills required to contribute to a knowledge economy
- Expansion and enhancement of the WELL program to provide support for the development of literacy and numeracy skills in the workplace for a wider range of employers, including small businesses, and for the development of higher level literacy and numeracy skills
- Australia's participation (via the ABS) in the OECD longitudinal study to assess adult competencies and consideration of the potential for using the data gathered to construct benchmarks for innovative capacity

Enabling with ICT skills

There is a need to increase the supply of people with skills to deploy and support ICT across industry. While industry demand for skilled ICT professionals is well-documented and easily understood, there is also a need for a greater general grasp of ICT applications and possibilities by the whole workforce.

DEEWR's WELL program has demonstrated that literacy problems and lack of experience and confidence with computers among general staff can be a major obstacle to the introduction of new reporting systems, quality processes and new technologies. Greater effort needs to be put into ensuring that existing workers are supported in the development of ICT skills, knowledge and experience.

Collaboration in a world of individual competence

The focus of Australia's education systems, and particularly the VET system with its use of units of competency, is on the development and recognition of individual competence. However, innovation demands collaboration, networking and building highly performing

teams. In these cases team or network capability may be seen as more than the sum of its parts.

Web 2.0 applications, enabling online collaboration, open source development and crowd-sourcing, are diffusing concepts of individual contribution and ownership. With its focus on the individual, the VET system has no way to recognise concepts of group competence but an attempt to do so would enable new approaches to learning and skills development that might be more compatible with the increasingly networked work environment, and could help organisations to develop their collective capacity for innovation.

The development and recognition of group capabilities is not an area in which IBSA has expertise. This concept has certainly been explored by others in non-accredited training and particularly in Indigenous communities where, for cultural and practical reasons, community competence and responsibility is sometimes more relevant than individual competence.

In attempting to equip organisations with the capabilities required for innovation there may be benefits in exploring ways in which the VET system could develop and assess group competence.

Boosting take-up of training options

All workers have the potential to contribute to innovation in their workplaces. For Australia to develop a truly innovative economy, all workers will need to be equipped with the skills and capabilities required for innovation. These skills include: thinking laterally and across disciplines; knowledge sharing, networking and making connections; problem solving, improvising and dealing with ambiguity; communicating, team building and mentoring; a global mindset, business acumen, resilience and a willingness to take risks; effective use of ICT and deep specialist knowledge.

Opportunities abound to build workforce skill through the VET system. Approximately 1.7 million people per year access publicly funded VET and many more VET programs are delivered in-house or on a commercial basis. The VET sector has the capacity to reach a large proportion of Australia's workforce providing portable, nationally recognised and consistent qualifications that are aligned to industry standards for competence in the workplace. VET qualifications, skill sets and units of competency are developed in close consultation with industry ensuring that they reflect genuine workforce requirements.

With its focus on workplace delivery, VET is a powerful tool for organisational learning and transformation. However, data from the National Centre for Vocational Education Research (NCVER) shows declining enrolments in VET, high attrition rates from full qualifications and slow take up of publicly-funded training places for existing workers. For employers and employees to benefit from the wealth of skill specification that has been developed by Industry Skills Councils the VET system needs to be allowed to deliver more flexible forms of learning and development for existing workers.

Current funding models for the provision of nationally accredited training are premised on the fact that full qualifications will be delivered. This model is at odds with demand from industry for not only full qualifications, but also a range of shorter, sharper learning and training options that provide existing workers with top-up training or new skills on an as-needed

basis. The full qualification funding model is also contrary to the concept of organisational learning and capability development as a continuous improvement necessity.

IBSA has developed units of competency and skills sets for innovation that can be delivered through the VET system. The units and skill sets are not limited to specific occupational or job outcomes and so have the potential to provide individuals with additional skills required for innovation in a wide range of organisational settings. However the current VET funding model limits access to these non-qualification skill development options for organisations and individuals.

IBSA's work on industry engagement with the VET system and capabilities required for innovation suggest that:

- Funded training places should be made available for existing workers to acquire skill sets that build innovative capacity, including through DEEWR's Productivity Places Program
- Successful pilots for the engagement of SMEs in formal training should be expanded and rolled out nationally in partnership with small business advisory bodies
- Cross-governmental approaches should be used to develop creative incentives to encourage employers to build the skills of their existing workforce e.g. skill development opportunities could be packaged as part of other funded programs for enterprises – receive R&D grant funding/subsidy and also be expected to demonstrate that employee skills have been developed as part of the program

Skilling the VET workforce

The effectiveness of the VET workforce impacts on the quality of all training provided by the VET system. If the broader Australian workforce is to develop greater capacity for innovation, VET practitioners must be capable of developing and delivering training programs to build that capacity.

The qualification requirement for VET trainers and assessors is IBSA's Certificate IV in Training and Assessment. There is no requirement for trainers and assessors to participate in ongoing professional development and for the large proportion of trainers and assessors working on a contractual basis professional development funding and opportunities are limited.

Many professional development programs available to the VET workforce focus on processes, e.g. the use of e-learning technology, compliance with quality regulations, using Training Packages to develop programs. While this type of professional development is important, trainers and assessors also need opportunities to consider outcomes from the training and assessment process and reflect on the implications they have for future practice. For example:

- Opportunities to hear from/talk to employers and past learners about their experiences with training in relation to what has been most useful for them in the workplace, how the skills acquired have been used, what skills were not adequately developed through training

- Developing networks across disciplines, particularly with creative industries, as a means of thinking more actively about the approaches to problem solving and creativity embedded in training programs
- Exploration of the ways in which the incorporation of employability skills can be used as a mechanism to build skills required for innovation – team skills, critical thinking and analysis

As the ISC responsible for the vocational education and training needs of the education sector, IBSA can see the need for a wide range of professional development approaches and services to increase the capacity of the VET workforce to skill people for innovation. However, IBSA has no specific responsibility or funding for the delivery of professional development programs for the sector.

IBSA's work with VET providers on the development and implementation of national training products suggests there is a need for:

- The creation of a member association for accredited trainers and assessors with responsibility and funding to provide ongoing professional development opportunities for VET professionals with a particular focus on building their capacity to train an innovative workforce
- Australian and State governments to work together with relevant peak bodies (TDA, ACPET, ERTOA) to develop approaches that will ensure that VET professionals employed on a contractual basis have access to ongoing professional development

Bringing everyone along

Innovation is important for everyone. It provides the new ideas, products, services and solutions that will overcome future challenges for industry and the community. It needs to be recognised that the outcomes from this Review are not only relevant to the Department of Innovation, Industry, Science and Research.

Findings from the Review will need to be communicated to all other government portfolios. The Review has the potential to kindle a genuine whole-of-government approach by emphasising the importance of united action and the avoidance of contradictory approaches.

In the case of education and training, the Review should identify obstacles to delivering on skills for innovation and send a clear message that these obstacles must be addressed for the future benefit of Australian society.

IBSA Contacts

- Author:
Prepared by Anita Roberts, on behalf of the CEO
- Name of organisation:
Innovation and Business Skills Australia
- Type of organisation:
Not for profit, government-funded – for further detail refer page 1
- Address:
Level 2, 192B Burwood Road
Hawthorn Victoria 3122
- State or Territory (or country if not Australia):
National
- Email and phone contact:
Sharon Coates, Chief Executive Officer (until 31/5/08)
Cherry Cole, General Manager (1/6/08 on-going)
John Vines, Chair
Phone (+61) 03 9815 7000
Fax (+61) 03 9815 7001
- Declaration of Interest – refer page 1