

# Innovation and Creativity: Workforce for the New Economy

**A submission by the Office of the Australian Small Business Commissioner to the House of Representatives Standing Committee on Education and Employment:  
*Inquiry into Innovation and Creativity: Workforce for the New Economy.***

**9 March 2016**

## Introduction

This is a submission from the Office of the Australian Small Business Commissioner (ASBC)<sup>1</sup> to the House of Representatives Standing Committee on Education and Employment which is conducting an Inquiry into *Innovation and Creativity: Workforce for the New Economy*.

Our submission draws upon the ASBC's experience in dealing with small business and family enterprise over a number of years. The ASBC also sits on the board of the Small Enterprise Association of Australia and New Zealand (SEAANZ), where he has been a long standing advocate for closer relations between academia and the business community. The ASBC is in a strong position to appreciate both the business and academic perspectives on barriers to co-operation between the two sectors.

Small business is a vital part of our economy and plays an important role in the commercialisation of innovation. Small business comprises 97 per cent of all businesses; employs around 4.5 million people (43 per cent of total private sector employment);<sup>2</sup> generates 40 per cent of new jobs in the economy;<sup>3</sup> and is more active in innovation and exporting than large business.<sup>4</sup>

Small businesses are frequently at the leading edge of innovation. Creative ideas emerging from the tertiary system are often commercialised by small businesses founded by the researchers who developed the science or technology. Australia's future as an innovative nation will be characterised by more small businesses commercialising innovations springing from academic research.

## Source of ideas and information for innovation

An issue for the commercialisation of innovation is the limited transfer of ideas and information between universities and other higher education institutions and business. The Australian Bureau of Statistics (ABS) survey on Innovation in Australian Business<sup>5</sup> found that

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<sup>1</sup> The role of the ASBC is to provide information and assistance to small businesses, represent small business interests and concerns to the Australian Government, and work with industry and government to promote a consistent and coordinated approach to small business matters. The ASBC will transform into the Australian Small Business and Family Enterprise Ombudsman when the newly announced Ombudsman, Ms Kate Carnell AO, takes up the position on 11 March 2016.

The Ombudsman will be a:

- Commonwealth advocate for small businesses and family enterprises;
- Concierge for dispute resolution to allow businesses to resolve disputes without resorting to costly litigation;
- Contributor to the development of small business friendly Commonwealth laws and regulations.

<sup>2</sup> Commonwealth Treasury, *Small Business Data Card*, December 2014 with data current as at 2012-13 (<http://www.treasury.gov.au/PublicationsAndMedia/Publications/2012/sml-bus-data>)

<sup>3</sup> See Department of Industry, Office of the Chief Economist, Research Paper 4/2015, *The employment dynamics of Australian entrepreneurship*.

<sup>4</sup> See Department of Industry, Office of the Chief Economist, *Australian Innovation System Report 2014*, p 45.

<sup>5</sup> ABS: 8158.0 – Innovation in Australian Business, 2012-13.

only around three percent of Small to Medium Enterprises (SMEs) sourced ideas and information for innovation from the tertiary education sector (see Table 1). By contrast, SMEs were around ten times more likely to have sourced ideas from their competitors and other businesses in the same sector (also Table 1). A larger proportion of SMEs may also have sourced ideas indirectly from the tertiary education sector through, for example, journals and research papers. However, the figures strongly suggest that there is poor transference of ideas and information from the tertiary education sector to business.

We see a role for an advisory committee with representatives from industry and professional associations and academics to be established to break down communication barriers, to discuss and identify the key research needs in the business environment, and to better align business needs with research outputs. The advisory committee would benefit from diverse representation, including small business representatives. It could also play a role in identifying research institutes with particular expertise and linking the research needs of a particular business with the appropriate research institute. The ASBC believes there is scope for government to better align research funding with business and commercial outcomes and to make assessments based on potential real world impact.

**Table 1: Source of ideas and information for innovation, by employment size, 2012-13<sup>6</sup>**

	0-4 persons %	5-19 persons %	20-199 persons %
Within the business or related company	55.0	61.7	68.0
Clients, customers or buyers	42.2	36.8	46.0
Suppliers	25.1	26.8	35.5
Competitors and other businesses from the same industry	27.8	31.1	35.5
Consultants	15.6	20.6	29.4
Universities or other higher education institutions	3.1	2.8	2.7
Government agencies	2.8	2.1	5.4
Private non-profit research institutes	1.4	np	1.1
Commercial laboratories/research and development enterprises	1.0	0.9	1.3
Websites, journals, research papers, publications	31.5	27.7	28.5
Professional conferences, seminars, meetings, trade shows	20.7	25.3	26.7
Industry associations	16.5	15.9	24.0

np not available for publication but included in totals where applicable, unless otherwise indicated.

## Commercialising academic research

The ASBC is supportive of initiatives to build stronger linkages between academia and business. The ASBC believes that the current disconnect between research outcomes and business innovation could be addressed by improving communication between researchers and business and providing more business training for researchers.

<sup>6</sup> ABS: 8158.0 – Innovation in Australian Business, 2012-13.

The lack of business experience, education and training among researchers is a barrier to the commercialisation of innovation. University course structures do not routinely include business studies within degree courses in non-business fields, nor do they require business experience. The result is that academic researchers, who are pioneers in their fields of science, engineering or medicine, often lack the basic business skills needed to commercialise their breakthroughs.

Tertiary sector researchers can access business knowledge through entrepreneurship programs and business incubators but it can be more difficult to learn business skills later in life and to integrate them into the conduct of a profession. The ASBC believes that tertiary education institutions should offer business training within degree courses in science, engineering, medicine and other subjects likely to generate innovations that can be commercialised. Broader access to business management and innovation courses would help to attune Australia's academic researchers to the business opportunities that lie in the commercialisation of innovation.

Innovation 'boot camps' can help develop an innovation mindset within the tertiary education sector. These short intensive programs are aimed at helping teams move from having innovative ideas to developing a business plan and an executive pitch. They provide training in turning an innovative idea into a business proposal and attracting funding from investors. Innovation boot camps are already used by business advisers, some major corporations and universities to accelerate business growth and development.

In our view, the widespread availability of tertiary courses on business management and innovation boot camps would accelerate the commercialisation of innovations based on academic research.

## **Barriers to business innovation**

The October 2015 MYOB Business Monitor<sup>7</sup> found that small business nominated government regulation, lack of research and development funding, lack of marketing expertise, access to investment and lack of appropriate personnel as significant barriers to innovation (see Table 2). The MYOB survey also noted that medium-sized businesses perceived more barriers to innovation than small-sized businesses, with only 3% stating there were no perceived barriers to innovation. Medium-sized businesses were more likely to mention lack of R&D funding (31%), access to investment funding (25%) and lack of appropriate personnel (25%) as barriers to innovation.

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<sup>7</sup> MYOB Business Monitor, October 2015 Report: <http://files.myob.com.s3-ap-southeast-2.amazonaws.com/news/MYOB-AU-BUSINESS-MONITOR-NATIONAL-REPORT.pdf>. Of the 1024 businesses surveyed 61% were not employing businesses, 24% were micro businesses, 11% were small businesses, and 4% were medium businesses.

The lack of skilled people has also been identified as a barrier to innovation in other surveys. The 2012-13 ABS survey on Innovation in Australian Business<sup>8</sup> found that twenty three percent of innovation-active businesses considered that the lack of skilled people was a barrier to innovation. In contrast to the MYOB survey mentioned above micro, small and medium sized businesses considered that the lack of skilled persons was a bigger barrier (16-31%) than large businesses (19%).

The area of skills shortages affecting business was identified in the survey of Selected Characteristics of Australian Business.<sup>9</sup> That survey found significant skill shortages for IT professionals and IT support technicians, but shortages in engineering skills were less marked among SMEs than in large businesses. This might be addressed by more closely aligning the availability and content of tertiary education courses with the needs of business.

These barriers to innovation should form a focus for improvement. We set out various ways that these areas can be improved in the remaining part of this submission.

**Table 2: Barriers to business innovation for SME's, 2015<sup>10</sup>**

Factors mentioned	By % of surveyed businesses
Cost to develop or introduce innovation	28
Government regulation	23
Lack of R&D funding	14
Lack of marketing expertise	14
Access to investment	12
Lack of appropriate personnel	11
Lack of information	10
Lack of cooperation with other businesses	9
Lack of management resources	8
Access to intellectual property rights	7
Other (please specify)	3
No barriers affect my business when it comes to innovation	25
Don't know	8

Source: MYOB Business Monitor, October 2015 Report.

## Employee share schemes

Employee share schemes provide employees shares, or the opportunity to acquire shares, in the company for which they work. Employee share schemes help to align the interests of employees with those of their employers by giving employees an ongoing stake in the success of the business.

<sup>8</sup> ABS: 8158.0 – Innovation in Australian Business, 2012-13.

<sup>9</sup> ABS: 8167.0 – selected Characteristics of Australian Business, 2013-14.

<sup>10</sup> MYOB Business Monitor, October 2015 Report: <http://files.myob.com.s3-ap-southeast-2.amazonaws.com/news/MYOB-AU-BUSINESS-MONITOR-NATIONAL-REPORT.pdf>.

One approach to funding innovative start-ups (and other businesses) is to supplement other sources of funding by using employee share schemes to remunerate some employees. Using employee share schemes in this way has several advantages for innovative start-ups. It reduces the need for cash from other sources to fund wages while building a commitment by staff to the success of the venture. The opportunity to become a shareholder in a new venture, with the possibility of rapid growth in the value of the shares when the venture takes off, can be a significant incentive for people with an innovative mindset.

Employee share schemes can therefore be seen as an important recruitment tool and can play a significant role in attracting people whose academic qualifications and expertise will be essential to the rapid commercialisation of innovative ideas.

Employees' entitlements under employee share schemes are taken into account for tax purposes. In some cases the schemes are eligible for a reduction or tax deferral.<sup>11</sup> To access the concessions, employee share schemes must satisfy a number of preconditions including that the scheme offers shares to at least 75 per cent of the company's employees. Additionally, an employee may not hold more than ten per cent of the company's shares, or control more than ten per cent of the voting rights.

The requirement for employee share schemes to be non-discriminatory may limit the ability of small businesses and family enterprises to use these schemes to attract the key personnel required to ensure the efficient and effective transfer of technology to an innovative business. This requirement could be changed to facilitate access to the scheme for the key personnel of innovative small business and family enterprises.

The effect of Division 83A of the *Income Tax Assessment Act 1997*, which sets out the rules that determine the taxation arrangements for employees' entitlements, was considered in some detail during the inquiry by the Parliamentary Joint Committee on Corporations and Financial Services into Family Business in Australia in 2013.<sup>12</sup>

As part of the recently announced National Innovation and Science Agenda, the Government announced its intention to facilitate access to employee share schemes by startups by limiting the existing requirement for disclosure documents and consulting with industry on an option to make employee share schemes more user-friendly.

This Office supports the Government's proposed changes aimed at facilitating access to employee share schemes. We believe that further changes to employee share schemes to enable small business to use these schemes to attract key personnel while containing wage

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<sup>11</sup> Division 83A of the *Income Tax Assessment Act 1997* sets out the rules that determine the taxation arrangements for employees' entitlements.

<sup>12</sup> [http://www.aph.gov.au/Parliamentary\\_Business/Committees/Joint/Corporations\\_and\\_Financial\\_Services/Completed\\_inquiries/2010-13/fam\\_bus/index](http://www.aph.gov.au/Parliamentary_Business/Committees/Joint/Corporations_and_Financial_Services/Completed_inquiries/2010-13/fam_bus/index)

costs during the development phase of a startup would help to enhance technology transfer and rapid commercialisation by innovative businesses.

## Entrepreneurs' Programme

The Australian Small Business Commissioner supports the initiative to establish the Entrepreneurs' Programme. We commend the recognition of the varied needs of business and the need for the Programme to have strong connections with other key areas across government including other support measures for small business and family enterprises.

The ASBC sees potential for significant benefits for small businesses and family enterprises which participate in the Entrepreneurs' Programme. In this regard, it is important that these businesses are eligible for and have access to the Programme's initiatives. Small businesses, in particular, have less time and resources than larger businesses and would benefit greatly from the additional assistance, especially regarding improved business management skills.

Business management skills are a major challenge for small business. This is supported by an Australian Securities and Investments Commission (ASIC) study of 9,788 business failures in 2012-13 which cited poor strategic management as the most common cause of business failure.<sup>13</sup> It is in the early stage of business operation that businesses most need assistance to improve management skills and develop effective business plans. It is highly likely that improving management skills and capabilities in this early phase of business operation will improve the number of successful innovative businesses.

The ASBC supports the principles behind the Programme's Business Management stream of encouraging business owners and managers to take time out from working *in* their business to work *on* it, and the role of effective business planning.

The ASBC sees potential for significant benefits to the overall business operating environment in Australia through the Business Management and Innovation Connection Programmes. However, we are concerned that these benefits will not be fully realised due to the eligibility requirements which render businesses with less than three years operating experience or without sufficient revenue turnover levels ineligible to access assistance.

The ASBC believes that the assistance available to businesses through the Business Management and Innovation Connection streams should be open to all businesses, including small businesses and businesses which have been operating for less than three years. This is a critical time for businesses and a time within which many innovative businesses fail.

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<sup>13</sup> Australian Securities and Investment Commission, *Insolvency statistics: External administrators' reports (July 2012 to June 2013)*, Report 372. <http://download.asic.gov.au/media/1344428/rep372-published-17-October-2013.pdf>

## Intellectual property rights

The ASBC recently made an extensive submission to the ongoing Productivity Commission inquiry into Intellectual Property Arrangements.<sup>14</sup> In its submission, the ASBC indicated its broad support for ensuring that an appropriate balance exists between incentives for innovation and investment, and access to ideas and products. Some of the issues that the ASBC raised in that submission are also relevant to this inquiry and are outlined below.

The ASBC believes that any changes to Australia’s intellectual property system need to cater appropriately for the majority of businesses that are affected by the system – small businesses and family enterprises. Individuals using the intellectual property system (if not already businesses) should also be regarded as tomorrow’s small businesses as they move from developing intellectual property to commercialising their innovation.

### *Streamlined processes*

The ASBC considers that the greatest gains for small business and family enterprises will come from efforts to streamline processes across all forms of intellectual property, as was foreshadowed in the IP Australia proposals put forward earlier in 2015. The ASBC recommended that the Productivity Commission examine proposals for individual forms of intellectual property with a view to the ‘bigger picture’ and the navigability of the system as a whole.

### *Innovation patents*

Innovation patents provide a second-tier patent protection system at a lower cost and with easier access than standard patents. They were introduced with the intention of stimulating innovation by Australian SMEs. The abolition of the Innovation Patent system is currently under consideration, following a recommendation by the Advisory Council on Intellectual Property (ACIP).

Underutilisation of the Innovation Patent system in the context of an ill-informed SME community leads our office to have reservations about the suggested abolition of the system. The ASBC considers that the system should be evaluated with regard to its *potential* to contribute to economic gain. This may be improved by providing further information and education to the SME community about the system and by modifying, rather than abolishing, the system. We also note the presence of “second-tier” patent models in approximately 59 other countries, and multiple submissions to IP Australia’s most recent consultation process arguing against the abolition of the system.

The ASBC recommended that the Productivity Commission consider the Innovation Patent system with a view to its potential contribution to the economy and SME sector, including the

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<sup>14</sup> [http://www.pc.gov.au/data/assets/pdf\\_file/0010/194860/sub101-intellectual-property.pdf](http://www.pc.gov.au/data/assets/pdf_file/0010/194860/sub101-intellectual-property.pdf).



contribution it may be able to make if it is modified and there is greater effort to inform the SME community about the benefits of the system.

#### *Easier enforcement of rights*

Small businesses may be damaged by having their intellectual property infringed. The ASBC is aware of small businesses that allege their ideas and designs have been copied by large businesses. Small businesses in this position have reported that the effort and expense involved in taking on a large business is too great. Accordingly, for a small business in this position, intellectual property rights may be too hard to enforce. The ASBC has proposed that SMEs should not need to register intellectual property rights before making a claim, that courts should consider lowering the costs for SMEs registering claims, and lowering the burden of proof required to establish an infringement.

In a similar vein, the ASBC is aware of instances of small businesses being reluctant to tender for government contracts out of a concern, or mistrust, that innovative ideas proposed may not be protected. A particular concern is that the ideas of small businesses and family enterprises may be passed on to the successful tenderer or taken up for use by the tendering government agency without awarding the tender contract. Outcomes of this nature have an undesirable chilling effect on small business innovation.

#### *Potential approaches*

The ASBC considers that the protection of intellectual property rights is very important to innovative small businesses. In our submission to the Productivity Commission inquiry into intellectual property, the ASBC suggest that the following steps might be taken to improve intellectual property protection for small business:

- Streamline processes across all forms of intellectual property.
- Review the Innovation Patent system to improve its contribution to the economy and SME sector, including the contribution it may be able to make if it is modified and there is greater effort to inform the SME community about the benefits of the system.
- Give consideration to the use of alternative dispute resolution (ADR) processes instead of court-based processes for dispute resolution. The use of ADR should be a mandatory first step when a small business is involved in the dispute.
- Consider adopting longer timeframes for patent renewal with the aim of reducing the regulatory burden on small business.
- Lowering the costs for SMEs registering claims and lowering the burden of proof required to establish an infringement.

## **Science, Technology, Engineering and Mathematics (STEM)**

Australia's future workforce will need higher skills in subject areas of greatest value to the industries of the new economy – Science, Technology, Engineering and Mathematics (STEM). New industries are emerging to take the place of the resource-based industries as the main drivers of growth and prosperity in the Australian economy. These industries are knowledge-based and depend upon the commercialisation of science and technological developments. To be globally competitive in the new economy, Australia needs a workforce that is proficient in the skills required by knowledge based industries. As many countries are recognising, these skills are grounded in tertiary sector training in STEM subjects.

Knowledge-based industries derive a large part of their competitive advantage from Research and Development (R&D). For many decades, governments both here and overseas, have supported R&D in recognition of the public benefits it brings to society, through higher growth and productivity, and the competitive advantages that firms performing R&D enjoy. STEM skills are critical to the conduct and management of R&D projects. Australia must increase its R&D efforts to remain competitive in knowledge based industries. Accordingly, the supply of skilled personnel capable of performing, managing and capturing the benefits of R&D should be increased. This will require a greater STEM focus in tertiary education. Figuring out how to accomplish this should be the focus of further investigation.

## **Vocational Education and Training (VET)**

The Vocational Education and Training (VET) system is as important to producing a highly skilled and creative workforce as the university system. Each year, around a quarter of all working age Australians undertake a VET course. There is a substantial national investment in the VET system and it is important that we get good value for money. A priority reform for government is to lift the quality of the VET system by eliminating fraudulent or substandard VET providers and ensuring that VET courses are aligned with industry needs. The ASBC applauds the Government's determination to lift quality standards in the VET sector.

In addition to maintaining VET quality standards, the Government should ensure that VET courses are relevant to the needs of industry. The VET system aims to produce highly skilled workers who can find employment with existing firms or create their own small businesses. Their skills must be relevant to the needs of the market. To accomplish this, business should have greater say in the design and content of VET courses. Funding should be better aligned with industry needs. The voice of small businesses and family enterprises should be heeded when setting VET priorities. To some extent, large industries can cater to their own training requirements. Small business, on the other hand, is far more reliant on the government VET systems to produce workers with the skills they require. The Australian Industry Skills Committee (AISC) should ensure that small business concerns are taken into consideration when advising governments on VET course design and funding priorities. In this regard, the Australian Chamber of Commerce and Industry represents the interests of small business on the AISC.

## **Conclusion**

The ASBC encourages consideration of the following measures to develop a more innovative and creative workforce suitable for the new economy:

- Offering training to students and researchers in the tertiary education sector on how to establish and run a small business, to help them convert academic research into commercial products;
- Establishing advisory committees of academics and business people for each university to assist in the transmission of ideas between academia and business;
- Facilitating access to employee share schemes to help small businesses and family enterprises attract key personnel, while containing wage costs during the business start-up phase;
- Reducing the costs of protecting intellectual property for small businesses and family enterprises;
- Increasing emphasis on STEM in the tertiary education sector; and
- Strengthening the focus on quality and on business needs in the VET sector.