



Skills Report Position Paper 8: The Role of Innovation in Alleviating Labour Shortages

REPORT FINDINGS

The literature review for this project shows that the NSW Government's forecast is that 40% of today's jobs will not exist in 10 to 15 years, and 60% of the best jobs in the next 10 years are yet to be invented. The World Economic Forum predicts jobs growth in industries such as arts, engineering, artificial intelligence, robotics, nanotechnology, 3D printing, genetics and biotechnology. We can also build on our competitive strengths in quantum computing, big robotics, fintech and agtech.

To meet the future needs of industry we must ensure the right mix of talent, with skills in diverse fields such as critical and experimental thinking, creative problem solving, managed risk-taking, management and entrepreneurship, along with science, technology, engineering and mathematics (STEM). It is the region's challenge to work with industry, education providers, communities and the Australian Government to actively build the skills needed for future diverse high-value jobs; by growing and re-skilling talent, encouraging business opportunities and attracting the best and brightest talent internationally.

With greater innovation, we will in turn gain an economic boost through:

- higher productivity
- more attractive employment opportunities
- increased roles to make the region attractive for skilled migrants
- a reduction in the drain of young people who do not return to the region after gaining qualifications as they are drawn to more interesting roles in larger areas.

While technology is improving and the NBN Rollout aims to connect 90% to high speed internet, many in the region will continue to be connected to wireless and satellite services and poor access to reliable internet remains a significant obstacle.

During the 2017 survey processes, the 190 businesses and organisations that took part were asked to identify the factors likely to impact on their business in the next five years. The top three impacts by the respondents were:

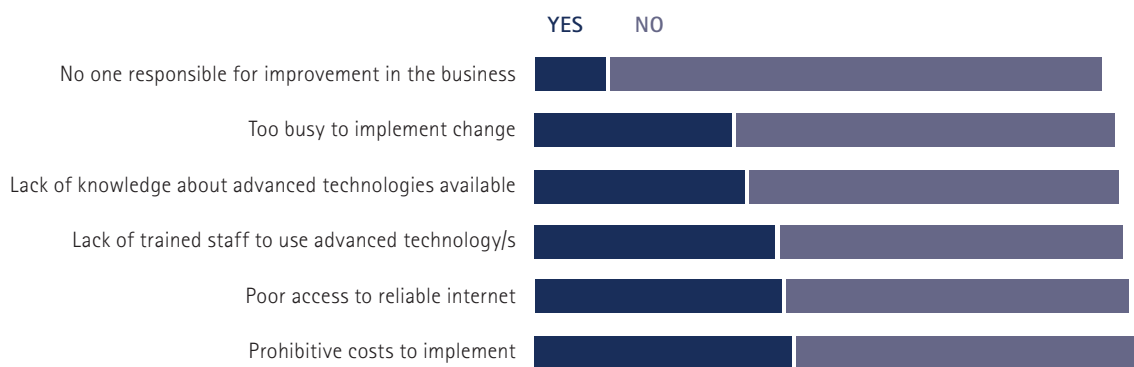
1. Having access to a suitably skilled workforce
2. Costs impacting on profitability
3. An ability to use technology effectively
4. Rising costs of compliance
5. An ability to innovate and be responsive to customers' needs.



While the willingness to adapt and be innovative exists, other factors are impacting on the capacity of businesses to grow and adapt.

Participants were also asked about the rule of technology and innovation in their business and what was preventing them from introducing new technologies. They identified these barriers:

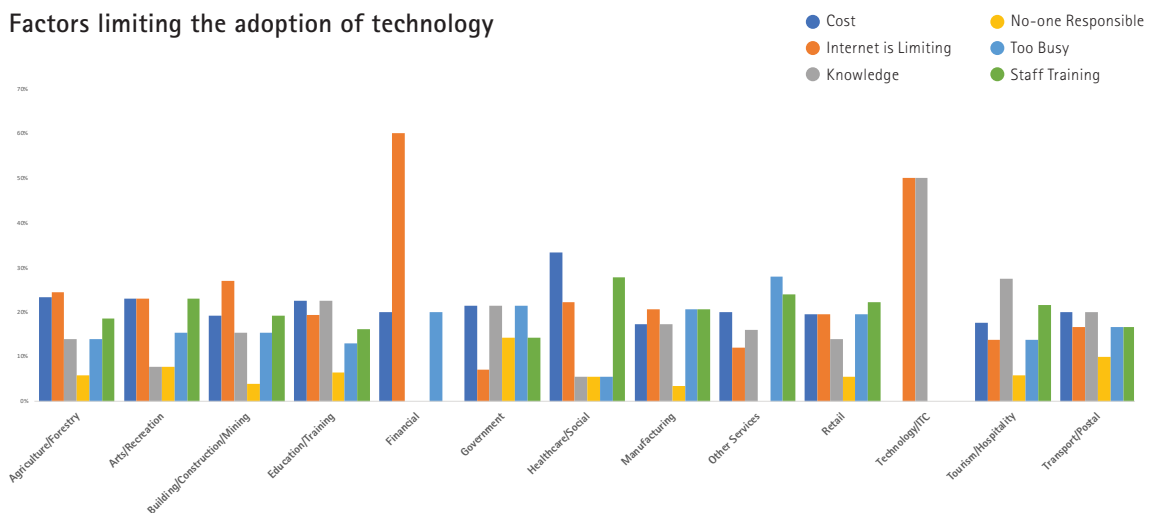
- high costs
- poor access to reliable internet
- lack of trained staff to use advanced technology
- lack of knowledge about technology available
- too busy to implement change
- nobody in business responsible for improvements.



The health care industry is most impacted by cost, while 60% of financial services businesses and half the technology firms rated internet access as their biggest barrier. Knowledge was also a significant challenge for half of the technology-related businesses in the survey.

When it comes to creating innovation for themselves, the statistics uncovered in the survey were low, suggesting the region is a currently home of adaptors, not creators. Only 95 of the 190 survey participants (51%) indicated they had acquired or integrated advanced technologies (equipment or software) into their business to support new or improved functions.

Factors limiting the adoption of technology

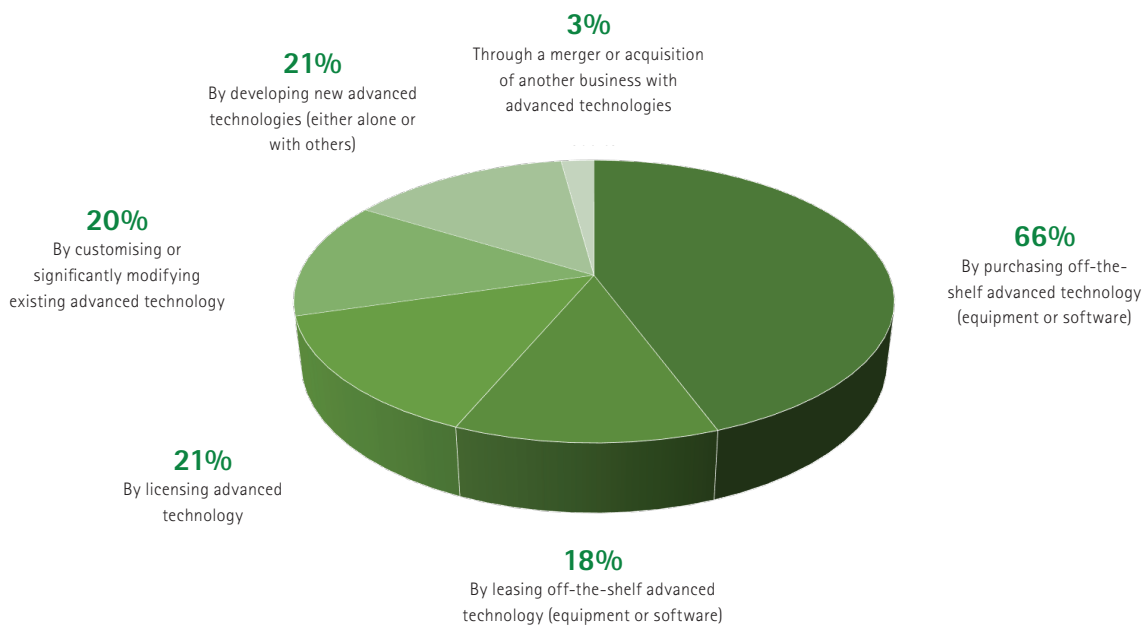


The financial, government and technology sectors were the industries that considered their use of advanced technologies the highest. Disappointingly, education and training recorded low uptake, while only half of the agricultural enterprises involved were adapting to new technology.

Sector	Yes	No	% Yes
Financial	5	0	100.0%
Government	8	2	80.0%
Technology/ITC	3	1	75.0%
Healthcare/Social	9	4	69.2%
Other Services	5	3	62.5%
Manufacturing	6	5	54.5%
Agriculture/Forestry	21	21	50.0%
Building/Construction/Mining	8	8	50.0%
Tourism/Hospitality	11	12	47.8%
Education/Training	8	10	44.4%
Retail	7	12	36.8%
Transport/Postal	3	6	33.3%
Arts/Recreation	0	5	00.0%
	94	89	51.4%

BUSINESSES INTRODUCING NEW TECHNOLOGY

When asked if they were creating innovation themselves, three per cent of survey participants answered that they had merged or acquired another business to advance their innovation. Another 21% said they had been developing new technologies themselves or with a partner, while 66% purchased and 18% leased off-the-shelf products.





SITUATIONAL REVIEW AND GAP ANALYSIS

Innovation may be one answer to growing our economy. Drivers of innovation include:

- profitability
- skills shortages
- cost of capital vs cost of labour
- changing market demands
- environmental pressures, such as water, chemical use, accreditation and effectiveness
- evolving consumer tastes
- growth of house brands sold by supermarkets
- new markets with different states and religious requirements, such as Asia and the Middle East.

Some of the barriers to address include:

- innovators employing staff from outside the industry and the region
- availability of information and consultants to provide specialist information
- willingness of innovators to share market sensitive information.

According to one of Australia’s most highly-regarded demographers, Bernard Salt of The Demographics Group, businesses should be on the lookout for candidates who are flexible, tech-savvy and come with well-developed soft skills for a successful future workforce.

This is one way we may be able to help stop the drain of families of young people out of our region. Salt is advocating for Australia to develop a culture of innovation. He has compared Australia’s leading companies – the likes of Telstra, Woolworths and BHP – who have been around since 1901, 1924 and 1885 respectively to some of the largest companies on earth, which originated in the United States. These include Apple, Google, Microsoft, Facebook and Johnson & Johnson – some of which didn’t even exist just over a decade ago and have experienced miraculous growth in a short period of time. “When you look at the biggest businesses on the Australian continent compared with America, we’ve got a long way to go in order to truly embrace the level of innovation that we see coming out of America,” says Salt.



RDA Orana Position

RDA Orana is committed to ensuring that innovation plays a role in developing the region’s economy through greater productivity and to growing its workforce by offering more attractive roles.



RECOMMENDATIONS

1. Develop a regional innovation strategy.
2. Advocate for tax breaks and incentives to support the implementation of innovation—beyond research and innovation—that grow adoption over creation.