

PRE-BUDGET SUBMISSION (2021-22 BUDGET)

29 January 2021

The Australian Technology Network of Universities (ATN), in collaboration with The University of Newcastle, welcomes the opportunity to constructively work with the Morrison Government on developing the 2021-22 Budget.

ATN is the peak body representing Australia's five most innovative and enterprising universities: Curtin University, Deakin University, RMIT University, The University of South Australia (UniSA), and The University of Technology Sydney (UTS). The University of Newcastle is also an important community institution in the Hunter Region. Together, we are home to over 300,000 university students.

Australia's university sector plays an important role in the economic and social development of our nation. We provide foundational qualifications that set up our graduates for a lifetime contributing to the workforce and the community, we up-skill and re-skill current workers to improve their productivity, and we work closely with businesses on research, innovation and commercialisation. We are also significant employers - ATN universities directly employ over 23,000 full and part-time staff and Australia's universities as a whole employ over 130,000 staff.

Universities have worked tirelessly throughout 2020 to adjust and adapt to the COVID-19 pandemic to maintain and improve our vital teaching of Australian and international students and keep our strong connections with businesses, particularly small-to-medium enterprises (SMEs). We are ready to play our part in the economic and social recovery from the health and economic crisis caused by the pandemic.

The Government and community response to the pandemic has put Australia in an enviable position. We now have the chance to make the most of this hard-earned opportunity and the lessons we have learned during the pandemic. Australia's future prosperity relies on providing opportunities across our whole society and sharing the benefits of this prosperity.

In context of the Budget, we are focusing on increasing access to opportunity, strengthening the integration of employment and education, and driving innovation and transformation to help universities, businesses and people in the COVID-19 recovery. The Government can help us to do this by furthering its Jobs-ready Graduates reforms, supporting workers and employers to engage with up-skilling and re-skilling, and creating a sustainable research ecosystem that aligns with investment in high-value industries.

We must also acknowledge the looming budgetary challenge for higher education due to the impact of COVID-19 on Australia's international education sector. Prior to the pandemic, international education was Australia's fourth largest export and its economic enabling effect for secondary industries like hospitality and tourism had long been recognised.

We will continue to work closely with Commonwealth and the National Cabinet to contribute to a plan to revitalise this important job creating sector, and effectively communicate this plan to the community, and existing and prospective international students.

During 2020, universities adapted by providing offshore international students with the opportunity to continue their studies online, but we still need a pathway to welcome students back to Australia (especially those that need to undertake lab work, fieldwork and ongoing research).

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The Government and universities have worked hard over the last three decades to build up a substantial international education system, that generates many economic, diplomatic, social and cultural benefits for Australia. It is important that we protect the position, desirability and competitiveness of Australia in the international student market.

ATN will also continue to work the Government on extending our community engagement. Universities are important anchor institutions in their communities. As part of our broader mission, we engage with community projects that have a real impact.

Strengthening our local communities by engaging with them, understanding the challenges they face, and developing innovative solutions is part of our DNA. Our reach and impact goes well beyond our students, researchers and other staff to share the benefits of our public institutions.

Our approach can be summarised into three focus areas with the following recommendations:

Access to opportunity

1. Closely monitor, evaluate and review the impact of the Job-ready Graduates Package to ensure that it is providing opportunities for all Australians.
2. Provide better access to Commonwealth support and more flexibility in the way universities can deliver this support.
3. Recognise the skilling needs of different regions within Australia, including extending demand driven access to all Aboriginal and Torres Strait Islander people and providing the Tertiary Access Payment for all students from regional and remote areas.

Integration of employment and education

4. Develop collaborative learning hubs that co-locate industry, education and training sector organisations.
5. Encourage enterprise-based learning – such as work-integrated learning, industry-linked research positions, and employer-driven apprenticeships, cadetships and internships.
6. As other supports are tapered, introduce targeted support or entitlements for the up-skilling and re-skilling of workers.

Driving innovation and transformation

7. Maintain a pipeline of research from discovery through to application and commercialisation.
8. Recognise innovations and high-value industries on a national and local level within a broader industry strategy.

Access to opportunity

Provide equitable access to opportunity by putting the strategy, funding, and partnerships in place that grow high-value jobs and industries, supported by innovative education models and production of a flexible, adaptive workforce

Recommendations

1. **Closely monitor, evaluate and review the impact of the Job-ready Graduates Package to ensure that it is providing opportunities for all Australians.**

Providing access to opportunity means ensuring that the funding system is enabling universities to continue providing world-class education to Australian students.

As the reforms to higher education are implemented over 2021-23, we need to assess whether they are achieving the Government's policy aims. A particular concern is whether students are responding to funding incentives that encourage participation in national priority areas and whether the total funding is meeting the cost of delivery.

An important part of providing access to opportunity is ensuring that equity-focused funding is helping those that need it. ATN looks forward to contributing to the development of the Indigenous, Regional and Low SES Attainment Fund (IRLSAF). We also want to ensure that there is continued access to proven pathways to university, such as enabling programs, for people who experience all forms of educational disadvantage. The Australians that need better access to opportunity are diverse and the assistance they need is similarly diverse.

2. **Provide better access to Commonwealth support and more flexibility in the way universities can deliver this support.**

The flexibility in the funding envelope introduced in the Jobs-ready Graduates Package was a significant reform. It has enabled universities to respond to student and community demand by offering places in the areas and levels that are needed.

The 50,000 new places in short courses announced in the 2020-21 Budget were welcomed by ATN. We will need to start building on this in 2021 in order to continue delivering the skills Australians need in the way they want them in 2022 and beyond.

The Government, in collaboration with universities, should design the future framework for short courses to continue the process of reform of the Australian Qualifications Framework (AQF). Being the first country to successfully implement a national system for the funding and recognition of short courses will deliver a substantial competitive edge, both locally and globally.

A crucial part of this will be by providing Commonwealth support on a subject-by-subject basis to people up-skilling and re-skilling. This would make short courses more accessible and attractive, while the short course framework would also provide a pathway for recognition and accreditation for those interested in pursuing their studies further.

3. **Recognise the skilling needs of different regions within Australia, including extending demand driven access to all Aboriginal and Torres Strait Islander people and providing the Tertiary Access Payment (TAP) for all students from regional and remote areas.**

While we have a national higher education system, there are persistent disparities in educational attainment across Australia (particularly in regional areas). The Government could continue to address this by extending the reforms of the Jobs-ready Graduates Package.

The Jobs-ready Graduates Package has provided demand-driven funding for eligible Indigenous persons, with the definition of such a person being restricted to someone whose permanent home address at the time of enrolment is in a regional or remote area. Over a third of Indigenous persons do not live in regional or remote areas and a high priority needs to be given to reducing the gap in further educational attainment for all Indigenous persons.

This initiative should be broadened to include all Indigenous persons. This would better align the reforms with the Government's recently announced approach to Closing the Gap and revised further education target.

Additionally, all regional and remote students should have access to the TAP regardless of the location of the institution at which they choose to study. This would meet the aims of improving the access and attainment of regional students in the Government's National Regional, Rural and Remote Education Strategy.

Integration of employment and education

Help maintain the momentum of the recovery by providing support for business to up-skill and re-skill staff and engage in research, innovation and commercialisation. This support should be targeted to small-to-medium enterprises (SMEs), in particular.

Recommendations

4. Develop collaborative learning hubs that co-locate industry, education and training sector organisations.

In December 2020, ATN released *Skills for Tomorrow*, a joint paper written in partnership with TAFE Directors Australia, the Australian Industry Group and AlpaBeta (now a part of Accenture). The paper recommended implementing strategies, funding and partnerships to grow high-value jobs and industries, and support them with innovative education and training models. Developing collaborative learning hubs is central to this. Collaborative learning hubs that physically co-locate industry and education and training organisations are critical to support new work integrated models of learning and innovation.

The Tonsley Innovation District in South Australia is an example where research institutions, businesses, start-ups, incubators, government and the wider community have come together in partnership. The facility will support employment and encourage a transition from traditional manufacturing to high-value advanced manufacturing.

Accenture's Adelaide Hub is another example where industry, government, and education and training providers are partnering to develop high-skilled jobs in high-value industries. The hub has the potential to generate up to 2,000 jobs over the next five years and inject up to \$1 billion into the South Australian economy. The move supports South Australia's push for establishing a high-tech community and a new, collaborative approach to business and technology. The hub will focus on growing sectors in South Australia, including aerospace, defence and cyber security. It adds to the network of organisations setting up in Adelaide such as the Australian Space Agency, the Australian Institute for Machine Learning, an MIT Living Lab and the Australian Cyber Collaboration Centre.

5. Encourage enterprise-based learning – such as work-integrated learning, industry-linked research positions, and employer-driven apprenticeships, cadetships and internships.

Enterprise-based learning will allow entry-level and existing cohorts of workers to be skilled, re-skilled and up-skilled.

This and other forms of work-integrated learning help ensure the relevance of learning and means skills can be immediately applied and reinforced. It helps build cohorts of learners within a single company, area or industry. It allows content to be more rapidly adapted to emerging trends and needs within industries. Work-integrated learning opportunities that foster connections with international companies and global industries also ensures Australia and Australian industries benefit from global innovations.

Collaboration between government, the education and training sector and industry will become increasingly important to equip workers with the necessary skills they need. RMIT University's Deputy Vice Chancellor Science, Engineering and Health and Vice President for Digital Innovation, Professor Aleksander Subic, reinforces this point when discussing growing areas such as systems design, industrial automation and robotics, and security, saying "we need to partner in ways we haven't done in the past. It's about co-design, co-investment and co-delivery of transformational programs for the changing industry environment and economy".

One example of this type of partnership is the collaboration between UTS and Telstra Corporation. In 2019, UTS worked closely with the Telstra Corporation to up-skill employees in areas including big data, machine learning and artificial intelligence. With a shortfall of up to 60,000 information and communication technology workers in Australia over the next five years, Telstra identified a range of skills gaps in its workforce strategy and worked with UTS to retrain employees while accessing the UTS' research capability and excellence.

Better blends of working and learning are an opportunity to provide more flexible, engaging learning experiences. It is timely therefore that we work together to enable modern forms of qualifications such as advanced apprenticeships or cadetships. This will also involve creating bite-sized learning opportunities in which industry, universities and the economy can do things differently for everyone's benefit.

One of the important reforms of the Job-ready Graduates Package was extending Commonwealth support for work experience in industry units. This will enable universities to offer more opportunities for students to get industry experience, test and develop their skills, and boost their employment opportunities.

However we know that, more than ever, students are managing the demands of part-time work and part-time (or even full-time) study. Work placements and internships often mean these students to scale back or cease their paid employment to focus on their studies. To expand access to these work experience opportunities, the Government should provide support for students who need financial assistance.

This would continue and extend the work that has begun with the introduction of the National Priorities and Industry Linkage Fund (NPILF).

6. As other supports are tapered, introduce targeted support or entitlements for the up-skilling and re-skilling of workers.

As emergency economic supports such as JobKeeper and the JobSeeker COVID-19 supplement are tapered and phased out, there is an opportunity to introduce new support designed economic recovery, productivity improvements and jobs growth.

While there is financial support for initial study and foundational learning (e.g. HELP loans), there are more financial barriers and costs for workers who are seeking to take postgraduate study or top-up training.

As recommended in ATN's *Skills for Tomorrow* paper, direct supports for workers seeking to up-skill and re-skill and their employers along with other incentives for investment in workforce skills and productivity would help address this gap. Enterprise-led approaches, where the employer helps their workforce to identify the right opportunities, could also be used to facilitate further learning in relevant skill areas.

This will ensure that workers and employers are better equipped to take on innovation and risk and able to take advantage of the creative and entrepreneurial opportunities that are available.

For example, the response to the pandemic has been remarkable in that many companies (and universities) have accelerated the digitisation of their operations such as customer and supply chain interactions by three to four years.

To maintain this momentum, we need to support the rapid up-skilling and re-skilling of the workforce so we are prepared for closer collaboration between people and smart machines, willing to innovate, and supported by an agile environment.

Driving innovation and transformation

Align investment in research and innovation to high-value industries and high-value jobs, ensuring that the public and private sectors are working in partnership.

Recommendations

7. Maintain a pipeline of research from discovery through to application and commercialisation.

Australia needs a both a pipeline of research talent and opportunities, and a pipeline of research from discovery through to commercialisation. It is important that we continue to support our cohort of researchers to ensure they stay in their field and stay attached to their institutions.

The once-off \$1 billion boost for the Research Support Program introduced in the 2020-21 Budget was welcomed by ATN and vital for us to continue our research programs. However, given the alignment of Commonwealth support for teaching with the average cost of delivery and the revenue loss from restrictions to international education, universities will require more direct support and other support to explore and maximise new opportunities.

One way of providing this support would be to encourage more businesses to employ research graduates, PhD students and embrace innovation. The capacity and productivity of the Australian workforce should be increased by encouraging more businesses to do this. These graduates and PhD students bring with them the ability to transform these businesses with their connection to cutting-edge research and ability to undertake research and development into new fields.

Universities are already deeply committed to industry precincts, start-up incubators and other hubs, such as UTS Startups, UniSA Ventures, SPARK Deakin, RMIT Activator, Newcastle's Integrated Innovation Network and Curtin Accelerate. To encourage and increase this activity, the Government should support and incentivise investment across the spectrum of early investment stages – from pre-angel through to venture capital.

Universities would also benefit from support for the research-teaching-commercialisation nexus. Universities can take continue to develop a three-way nexus where commercialisation and industry engagement works in concert with both teaching and research. This will ensure students graduate with the ability to engage with both research and industry.

8. Recognise innovations and high-value industries on a national and local level within a broader industry strategy.

The strategy should identify key strategic industries where Australia has (or can develop) a competitive edge globally and the support needed to drive these industries – including through capacity building partnerships with local universities and support for international collaboration which is crucial to bringing the best of the world's knowledge back into Australia, to Australia's advantage.

This would include building on the Modern Manufacturing Strategy with a comprehensive plan for workforce development. As the Government begins consulting on and implementing the new Strategy, it is important that universities are included in these plans.

Universities can help businesses bridge the technology and capability gap in developing Industry 4.0 initiatives. Universities play a crucial role in preparing the new workforce, up-skilling and re-skilling the existing workforce, and generating the innovations that will give Australia a competitive edge globally.

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