

# Ai Group and ATN joint statement

MARCH 2022



# The next Government must bring together industry and universities to solve Australia's skills crisis

The national employer association Ai Group and the Australian Technology Network of Universities (ATN) have joined forces to urge the incoming government after the next election to take a tripartite approach to solving Australia's skills crisis.

Ai Group and ATN propose the establishment of a Skills Forum which will be a three-way partnership with industry, universities and government to drive the national skills agenda and decide the practical responses needed now and in the future.

## The Skills Forum will:



The first priority is to ensure our businesses have a strong supply of skilled workers, supplementing the strong pipeline of Australians getting the skills they need for the post-pandemic economic recovery. The Skills Forum will focus on the practical actions of industry, universities and the Government can take to achieve this.

The Skills Forum is needed to deliver better outcomes for industry, existing workers, students and the economy. Improving student outcomes would be a priority. This would be delivered by partnering on opportunities for rapid upskilling and reskilling, work-integrated learning, part-time work in industry.

The three-way partnership should also focus on priority areas such as engineering, technology and healthcare. We need adaptive and innovative solutions to fill skills gaps in these areas, such as short courses to upskill overseas qualified workers, recognition and portability of short courses to transfer existing workers into priority jobs, and preferential migration pathways.

Australia's skilled migration settings post-pandemic need to be guided by an integrated, pragmatic, and coherent migration policy - one that voices the characteristics and ideals that all Australians can support and one that

supports economic growth and skills transfer. The Skills Forum is important to reaching a consensus on these issues.

We are faced with the responsibility to secure Australia's skills future and the opportunity to realise Australia's potential. **This is a shared challenge and opportunity.**

The Australian Industry Group (Ai Group) and the Australian Technology Network of Universities (ATN) are joining together to call on the next Government to work with us to secure Australia's skills future and realise Australia's potential.

Together, we are home to over 300,000 students and 23,000 full and part-time university staff and represent the interests of more than 60,000 businesses employing more than one million staff.

Ai Group and ATN are driven by a commitment to quality across all levels of education, skills and training. This extends from the quality of education and training, to the quality of skills being translated to the workforce, and the quality of opportunities for skilled graduates to build and grow meaningful and secure careers.

Together with the Government we can address the challenges we face with coordinated and innovative solutions that serve the interests of all Australians.

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## We commit to championing:



- ▶ Opportunities for skilled graduates to build high quality careers
- ▶ Strong support for international graduates and migrants as part of a diverse skills mix
- ▶ Cultures of upskilling and reskilling through reward and recognition
- ▶ Work-integrated learning and further education opportunities in industry
- ▶ High-quality first degrees with graduate outcomes at their core
- ▶ High level education and support for international students and graduates onshore and offshore
- ▶ Shorter, flexible courses and other innovative quality education in partnership with industry
- ▶ Work-integrated learning experiences open and accessible for all students

# Shared challenges – four priority areas





## Engineering skills

### Short-term

- ▶ Domestic graduates alone will not meet Australia’s need for engineering skills, so we need better employment outcomes for overseas students graduating from Australian universities and pathways to rapidly upskill migrants with overseas qualifications.

### Long-term

- ▶ We need to ensure that engineering careers are attractive to women and that universities have sufficient resources to maintain world-class education and teaching infrastructure.

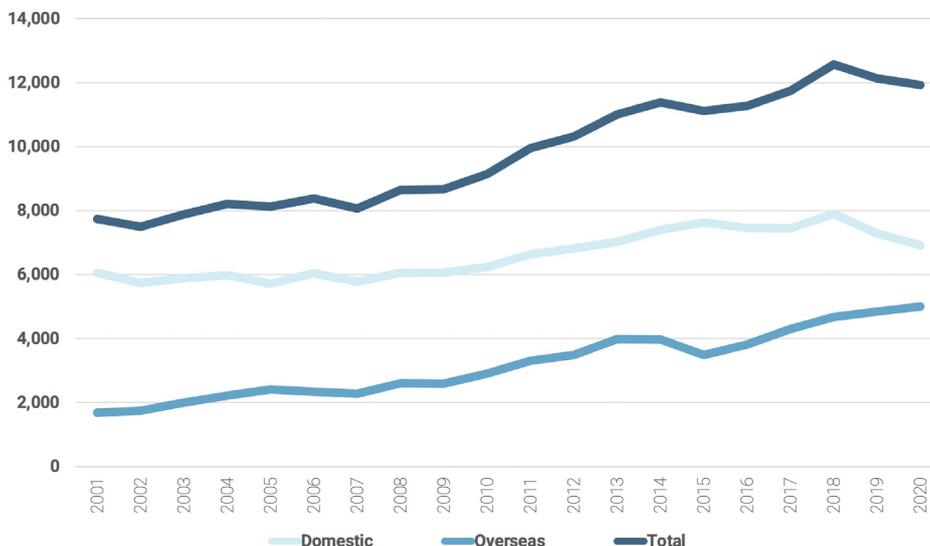
It is estimated that over the next few years Australia will need 11,000 new engineers annually which is around 2,400 more than the domestic undergraduate engineering completions each year. A portion of this shortfall could be filled by the more than 6,000 overseas undergraduate engineering students who graduate from Australian universities each year to allow us to meet these skills needs more quickly.

“Australia has an engineering skills shortage exacerbated by COVID-19, an engineering job vacancy rate that has

gone up 97 per cent in just 12 months, and an economic recovery hinging on major infrastructure projects,” said Engineers Australia CEO Dr Bronwyn Evans. “Productive employment of migrant engineers is vital to our national engineering capability and unless changes are made our future economic growth is at risk.”

Our solutions to these issues will require investment and cooperation from universities, industry and the Government as part of a multi-faceted approach. Domestic pipelines will not be enough.

Engineering undergraduate completions



<http://highereducationstatistics.education.gov.au>



# Tech skills

## Short-term

- ▶ The tech sector has already come together to plan how to meet the target of one million tech jobs by 2025 – this will require a combination of new graduates, existing workers upskilling and reskilling, and skilled migrants.

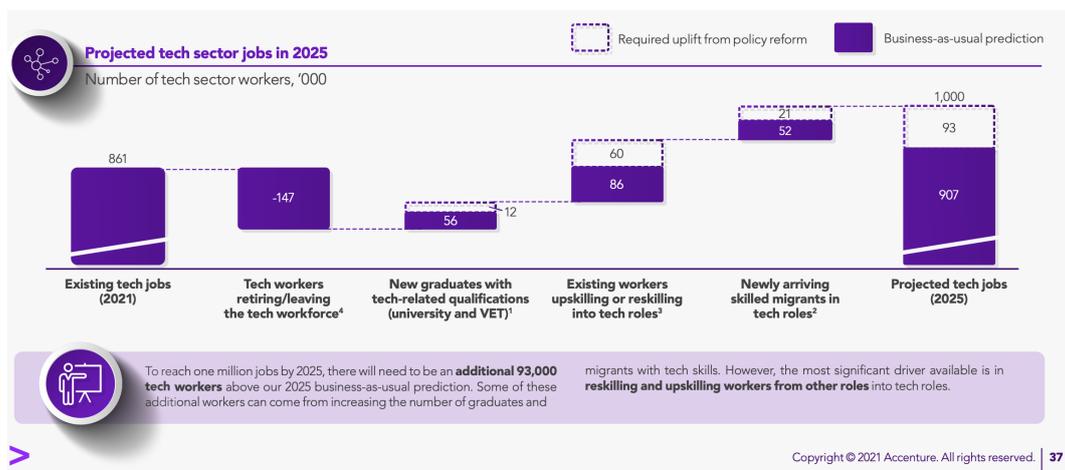
## Long-term

- ▶ Industry, universities and the Government need to plan for the future of the tech sector, especially given emerging technology and use cases and significant Government investment in technological and digital transformation.

Research released by the Tech Council of Australia shows we will need almost 300,000 new tech workers by 2025. Currently we are producing 7,000 Australian graduates and 18,000 overseas graduates in higher education each year – which means that we still have to develop and secure 160,000 new workers.

Many of these new tech workers will have existing skills and experience and do not need a traditional three-year undergraduate degree or two-year postgraduate course. Local businesses also cannot afford to wait that long in a competitive global environment where they can source talent from around the world. We will need to offer more flexible, adaptive and innovative education options.

The most significant source of additional tech workers is upskilling and reskilling workers from other roles



<https://techcouncil.com.au/wp-content/uploads/2021/10/2021-October-Roadmap-to-Deliver-One-Million-Jobs.pdf>



## Health and allied sector skills

### Short-term

- ▶ Responding to the pandemic, caring for Australia’s ageing population, and enabling people with disability to meet their aspirations will mean that the health and allied workforce will need to expand and upskill.

### Long-term

- ▶ Industry, universities and the Government will need to plan for advancements and changes in the nature of care so Australia cannot only maintain our high standards, but also export our discoveries, technology and expertise to the world.

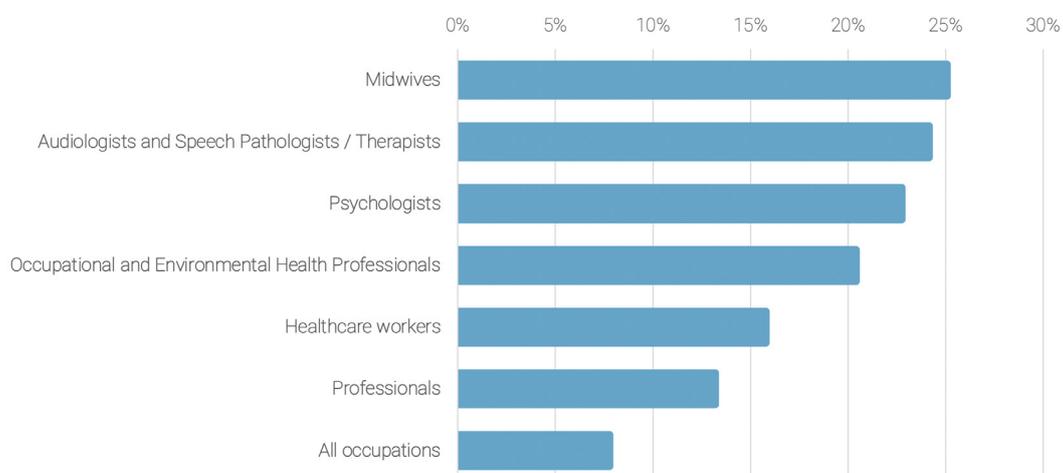
Health and aged care were already major growth sectors before the pandemic due to Australia’s ageing population, high quality standards, advancements in treatments and technology, and the growing demand for preventative and specialty care (especially in allied health). The stresses the pandemic has put on the health and caring sectors and its workforce has exacerbated these challenges.

Healthcare occupations (requiring an undergraduate degree level and above) are

projected to grow 16 per cent in the five years to 2025, outstripping overall growth and growth in professional occupations. Certain specialties like psychologists are projected to grow at an even faster rate.

To meet Australia’s health and care needs we must respond by preparing new graduates, upskilling and reskilling existing workers so they can switch areas or specialties, providing pathways for vocationally trained workers, and filling additional gaps with skilled migrants.

Growth in healthcare workers to 2025 (%)



<https://lmip.gov.au/default.aspx?LMIP/GainInsights/EmploymentProjections>



## Need for better data

### Short-term

- ▶ We need more timely data so that the Government, industry and universities can rapidly respond to urgent and priority needs.

### Long-term

- ▶ Collecting better and more comprehensive data will allow better analysis and modelling of trends, enabling us to plan well ahead for emerging and changing needs.

Our solutions to these skills challenges need to be underpinned by timely and comprehensive data across governments, industry and universities. We need to develop a coordinated map of the supply and demand for skills across all sectors so that we can work together to ensure we have the right mix of first degree education, upskilling and reskilling, and skilled migration to meet our skills needs now and in the future.

In such a dynamic period for industry and the workforce in Australia, timely and accurate data on labour market changes

and occupational and skill shifts becomes a crucial tool for policy development. The work of the National Skills Commission (NSC) in examining current, emerging and future workforce needs has been an important addition over the last two years.

Improvements in the quality of data provided to decision makers may also allow better understanding of the skill challenges ahead and importantly, provide opportunities to make policy interventions that deliver better outcomes for Australians.

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## Conclusion – a shared opportunity

We now have an opportunity to address our shared challenge and realise Australia's potential. Universities, industry and the Government all have a role to play in achieving the right mix of new graduates, skilled migrants, and shorter, flexible courses.

What these actions make clear is that we need to establish the Skills Forum to help rebuild Australia's economy and ensure our businesses have a strong and high-quality supply of skilled workers. ATN Chair, Professor Iain Martin, recently advocated for this to rebuild our international education sector.

*A three-way partnership between universities, industry and government is a crucial part of the integration of international education, and delivering better outcomes for industry, students and the economy. Using this 'triple helix' approach, the focus on student outcomes would be sharpened to include opportunities for work integrated learning, part-time work and ultimately improved graduate outcomes.*

*This three-way partnership is absolutely vital for this approach to succeed –*

*importantly we are suggesting that this strategic approach to international student pathways would unashamedly give preference to agreed areas that are in the nation's wider interest. Pathways to permanent residency in priority areas need to be re-cast and Australia should embrace longer periods for post-study work rights for international students who as skilled graduates will contribute to the workforce that Australia so deeply needs.*

Universities and industry are ready to work in partnership with the Government to ensure we have high-quality, skilled migration pathways for students and graduates that are sustainable, adaptive and attuned to the needs of Australia's economy and society.

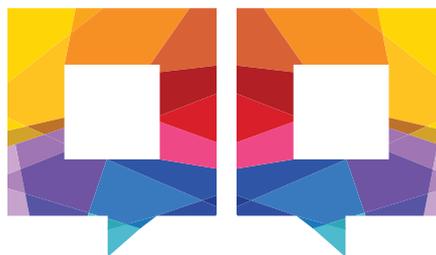
Innes Willox, Chief Executive of Ai Group believes that without a concerted effort to expand the supply of skills in targeted growth occupations, skill shortages will remain a significant break on the economy.

*Making stronger connections between industry, universities and the Government is critical to creating a sustainable skill pipeline that will enable Australian businesses to innovate and grow. With strong growth prospects for many sectors of the economy we need to act now to ensure that current skill shortages do not derail that relatively positive outlook.*

*In order to harness the positive momentum in the economy, it is essential that the education and training system can identify, then develop occupations in urgent need of skill development. It is equally important that employers can access the global skills market to plug skill gaps as needed.*

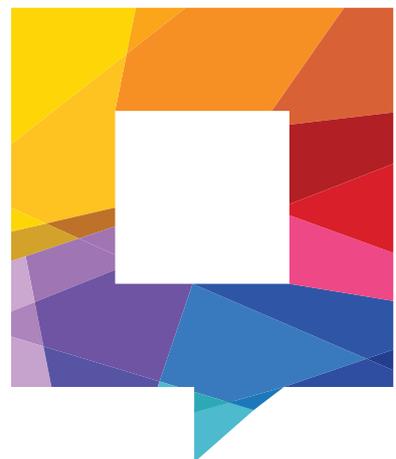
*We must pursue stronger connections between industry, universities, and the Government to ensure that local skills development can deliver in the interests of long-term growth in the Australian economy.*

This partnership can be extended to preparing new graduates, providing shorter, flexible courses for existing workers, and opportunities for work-integrated learning. Together with the Government, we can balance the needs of Australian workers, migrants, businesses, regions, and the workforce to create a system that is high-quality, targeted, measured and responsive.





# Case studies in priority areas





University of  
South Australia



## Innovation Academy in Digital Business

The University of South Australia and Accenture entered into a partnership to deliver a new Innovation Academy in Digital Business.

The Innovation Academy in Digital Business will transform business education in Australia by combining the best of Accenture's global practice and expertise with UniSA's proven leadership in transformative, industry-informed business education and research. The Innovation Academy will deliver bespoke innovative curriculum and training programs focused on real-world, industry learning experiences. This partnership will help solve current and emerging skills gaps and enhance productivity in Australia's strategic growth areas.

In mid-2022, two Innovation Academy offerings will be launched:

- ▶ **Bachelor in Digital Business** – Drawing on UniSA's expertise in online education and internationally-recognised business degree credentials, the

Bachelor of Digital Business combines business and technology content, as well as featuring real-world Accenture material, case studies and industry delivered webinars that will ensure industry relevant contextualisation of learning outcomes.

- ▶ **Professional Development** - a bespoke high value offering focused on upskilling and reskilling established workforces in leading-edge digital business practices with sought after skills and knowledge across an evolving and competitive business landscape. A practical, outcomes-focused approach to program development will ensure programs are tailored to meet clients' specific needs. Certification, accreditation and articulation to other course and degree options will be supported through UniSA's innovative Q-Credit system, enabling the completion of stackable micro-credentials which will allow people to build on their studies to gain recognised tertiary qualifications.



## Institute for Applied Technology for Digital Technology

The University of Technology Sydney, alongside Microsoft and Macquarie University, is joining forces with TAFE NSW to pilot NSW's first Institute of Applied Technology for Digital Technology, a new revolutionary education model.

The new Institute of Applied Technology (IAT) for Digital Technology, is under construction as part of the \$154 million Meadowbank Education Precinct. This innovative partnership will see students merge the knowledge gained through university study with the hands-on

technical skills acquired through vocational education.

Students who study at the IAT for Digital Technology can gain credentials at all academic levels of study they undertake, including a certificate, a diploma or bachelor's degree. The IAT will help address critical skills shortages in emerging digital technology skill areas, not only for jobs in digital technology but also for jobs across all sectors, where digital tools and new technologies are reshaping roles and the future of work.



## BAE SYSTEMS

### Innovative degree apprenticeship model

BAE Systems is a multinational security, aerospace and arms defence contractor that is headquartered in the United Kingdom. The company has pursued a degree apprenticeship model in the UK for some years. In 2020 it employed more than 200 degree apprentices across a range of disciplines.

BAE Systems Australia has been implementing similar arrangements, and since the start of 2021 it has been

working with Ai Group to develop a pilot group of degree apprentices in Victoria. Several companies are partnering in the arrangement, which will offer apprentices a Bachelor of Systems Engineering. The apprentices will be employed full-time under a contract of training. Much of the formal training will be online, however there will be some face-to-face training time to allow networking opportunities for the apprentices.



## Cultivating the next generation of innovators

Agilent is a global leader in the life sciences, diagnostics, and applied chemical markets, delivering insights and innovation that advance the quality of life. Established in Australia for more than 20 years, the company is committed to developing local talent in the community where it operates. To cultivate the next generation of innovators and business leaders, Agilent built a student scholarship program providing graduates and students the opportunity to make a difference from the start.

The 12-month program provides graduates and students with the opportunity to apply their knowledge and develop hands-on experience in a structured commercial environment. After the program, Agilent often employs participants on a part-time basis with a view to permanent employment after graduation.

The program delivers committed job-ready graduates that are immersed in the organisational culture, and productive from day one



## HunterWiSE for women and girls in STEM

HunterWiSE is a partnership initiative established in 2017 by a team of women researchers and educators at the University of Newcastle. HunterWiSE delivers two interlinked programs aimed at increasing the participation of women and girls in STEM.

The HunterWiSE Schools Outreach Program is a 10-week program that offers female Year 8 students from local schools the opportunity to learn alongside STEM academics and students from the University, and engage with industry sponsors to solve local community issues while developing their STEM skills.

The second program is the HunterWiSE Network: a community of women across the Hunter region from STEM industries and disciplines, coordinated by the HunterWiSE team. A series of targeted events held across the year provide opportunities for network members to build connections and foster collaboration.

HunterWiSE delivers these initiatives in partnership with the University of Newcastle and industry sponsors, including Glencore, BHP, Newcastle Coal Infrastructure Group, Bradken, GHD, Hunter Water, Quarry Mining, Impervium Solutions, NIER, Jacobs, and the NSW Government.





## Higher Apprenticeships Pilot Project

A series of Royal Commissions into family violence, mental health, disability services and aged care have shown there is community consensus that we can and must do better to support vulnerable people and communities.

RMIT is developing innovative new qualifications in the social services sectors and providing new learning pathways and career opportunities to respond to these challenges and to support Australia's fastest growing workforces.

These up-skilling qualifications also ensure that female-dominated industries are able to access the same kinds of training opportunities as male-dominated industries, such as trades and construction.

Through the Workforce Innovation and Development Institute (WIDI), RMIT is leading the development of Higher

Apprenticeship models for Victoria's social service sector. RMIT is working closely with industry partners to ensure that the models being developed support industry needs and respond to industry challenges – specifically the need to grow the sector's leadership and management capacity and capability. It also meets the needs of workers and leaders in the sector, developing a model which integrates recognition of prior learning, best practice work-integrated-learning and blended pedagogy.

RMIT's Higher Apprenticeships program was piloted in 2019 and 2020 with excellent results and is on a scaling track that will welcome more 1,000 students through 2022 and beyond, providing on-the-job up-skilling for new recruits and a leadership and credentialing pathway for team leaders and supervisors in the rapidly expanding and required social services sectors.



## New Education and Training Model (NETM) pilot

### Industry engagement and micro-credentials for rapid upskilling

The Western Parkland City Authority in New South Wales is undertaking a four-year funded pilot focussed on the needs of emerging industries in Western Sydney. Ai Group is involved in the pilot which is leveraging co-design in the development of education and training packages through direct engagement with employers and education providers. The innovative approach is delivering targeted training that develops growing demand for skills in the area.

Along with the emphasis on collaboration with industry partners, the NETM is also including the use and development of a range of micro-credentials that can be completed in around 40 hours – leading to rapid upskilling and immediate workplace outcomes. It is focusing on key emerging industries in the Western Parkland City, including advanced manufacturing, transport and logistics, defence, aerospace and agribusiness.



## FreelancingHUB - pivoting from on campus to a cloud co-working space

The FreelancingHUB offers internships at scale within a cross-disciplinary, cross-cultural co-working hub developing a solution for a not-for-profit or community organisation supervised and mentored by experienced industry project managers.

When COVID restrictions came into effect the team moved swiftly to create a Cloud co-working hub leveraging the digital communication and collaboration tools already in use. An unplanned but very welcome added benefit was the opportunity for our Cloud-based students and on-campus students to work side-by-side and expand their peer networks.

Over the last two years and while Covid-19 restrictions were in force throughout Victoria, 574 students have completed internships working across 79 not-for-profit organisations and government agencies including food banks, aged-care

facilities, police and ambulance agencies, mental health support, road safety groups, sporting/arts groups and sustainability/environmental causes. Pleasingly, the Cloud Co-working space enabled interns to experience working with international organisations based in Malaysia and India and gain an understanding of different business practices while developing cross-culture competencies.





## Design Your Curtin Experience

Targeted at first year undergraduate students, this intensive program will help students craft a more fulfilling and tailored university experience, aligned to their goals and interests. By using design thinking methodology and positive psychology principles, students expand the way they think about their time at university and get more out of their university experience.

Designing your career and your life is a process, and when designing anything you need tools, strategies and skills. Design Your Curtin Experience gives students the chance to develop these skills, apply tools and strategies to designing their university experience, so they can then apply them to their life more broadly.

Curtin was the first Australian university to be accepted and trained by Stanford University in their world-famous Life Design Lab. Curtin is now using its experience to partner with ATN to roll out a program based on Stanford's Life Design principles to all ATN universities.

This Australian-first program will be an online micro-credential that will help Australian workers map out and strengthen the skills they need to remain relevant and successful in their careers. It will be open to all Australians at different stages of their careers.

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