UNSW Submission – Universities Accord

UNSW Sydney welcomes the opportunity to respond to the Australian Universities Accord discussion paper. The Accord is an important opportunity to review policy and funding settings for the higher education sector to ensure that the Australian sector is well prepared for the future.

Australian universities are public institutions, whose focus and purpose is to support the sustainability, security, prosperity, and social and economic wellbeing of Australian society. We face as a society a period of increased uncertainty and dynamism against a global backdrop of recently widening socioeconomic disparity.

This submission does not aim to answer all the questions in the discussion paper but outlines a number of recommendations and options which aspire to ensure the Australian higher education system is fit for future challenges and opportunities and not shackled by current or past practice.

Following are the key points of the UNSW submission to the Australian Universities Accord:

1) **A holistic, integrated, higher education sector** – National skills requirements will best be met through a truly holistic and integrated higher education system comprising universities, TAFE/ VET, private providers and industry, each playing their critical but complementary roles. Specific recommendations include:
   - Supporting people through their lives with the funding of lifelong learning opportunities, whether through HECS-HELP type loans or through employer support (Recommendations 22 and 23)
   - Ensuring equitable access to lifetime learning (Recommendation 21)
   - Promoting Australia as a magnet for international talent, including through creative visas (Recommendation 11)

2) **Access, Opportunity and Success** – For Australian society to prosper in the future it needs to draw upon the skills, talents and perspectives of our entire population. Ensuring access to a university education for all students at the university of their choice, irrespective of their background, will greatly benefit Australia. At least as important as accessibility, students from low-socioeconomic and other disadvantaged backgrounds should be supported to succeed at university through a range of measures, including changes to funding their education and covering cost-of-living expenses. Specific recommendations include:
   - Supporting low-socioeconomic and other equity cohorts of students to attend the university of their choice, while also being supported to succeed at university (Recommendation 6)

3) **Student experience** – Positive student experience is central to our missions as public purpose institutions. In these dynamic times with the changing nature of work, international competition for talent, shifting student expectations and a nadir in funding support for domestic university students, Australian universities need support and funding certainty to provide appropriate student experiences into the future. Specific recommendations include:

- Re-establishing a dedicated fund for investment in university infrastructure (Recommendation 10)
- Better supporting students to meet cost-of-living challenges (Recommendation 8)
- Improved connection with industry and employers (Recommendation 4)

4) **A sustainable research system** – Research undertaken at Australian universities is critical to the nation's future, bringing both economic prosperity and improving the quality of lives. We recommend changing to a funding model whereby the full economic costs of research are funded, thereby rewarding excellence, giving all institutions a chance to be awarded funding, and setting a standard for other funders of research to meet. Key recommendations include:
   - Funding the full economic cost of research through granting agencies (Recommendations 12 and 15)
   - Supporting the development of Australia's research workforce through greater industry linkages for PhD students, and changes to migration settings to better attract and retain international PhD students and postdoctoral researchers (Recommendations 16 and 17)

   Funding the full costs of research would reduce the burden universities currently face in subsidising research costs, to enable them to:

   i) Address the significant education infrastructure deficit since the conclusion of the Education Infrastructure Fund (EIF).
   ii) Keep pace with the true costs of world-leading research infrastructure.
   iii) Improve pathways for and the success of research impact, which requires considerable additional time and investment.

Our submission to this review covers the role Australia's university system should play and the challenges it is already facing, including those that extend over the medium to longer term. It discusses changing trends and important issues to address in teaching and learning, research and ensuring access to university is equitable and provides a pathway for students to success, and suggests possible solutions to these emerging challenges.

Summary of recommendations:

The future of Australia's university system

Recommendation 1: Decisions around long-term policy settings should not assume that current conditions will continue to exist over the longer term.

Recommendation 2: One large, reliable, funding source is preferable to lots of little funding schemes. Reliability of funding should be the key feature of any funding model for the higher education system.

Recommendation 3: Universities should be able to allocate their funds to the different activities they undertake, according to their long-term strategies and meeting student needs.

Recommendation 4: Mechanisms should be established to facilitate and incentivise industry participation in post-secondary school education activities, as a partner for teaching and research activities.

Recommendation 5: Academic staff should more easily be able to move between academia and private or public sector roles, and then be able to return to academia. Shared academic/ industry roles or designated secondment programs and support to return to academia could support this.

Access, Opportunity and Success

Recommendation 6: Policies designed to increase access to university places for low-socioeconomic and other equity cohorts of students to attend the university of their choice are an important feature of the higher education landscape. However, they also need to ensure that support is provided for those students, in order to have the best experience and succeed at university.

Recommendation 7: Demand-driven funding should be extended to all domestic undergraduate students from low-socioeconomic backgrounds.

Recommendation 8: Consideration should be given to extending student support payments, or the ability for limited use of HECS-HELP style loans (with zero indexation to prevent unsustainable debt accumulation) to meet cost-of-living expenses while studying.

Student experience, supporting infrastructure and international education

Recommendation 9: Government should establish an entity within the Department of Education focused on supporting and highlighting best practice in tertiary education to support high quality teaching and student experiences.

Recommendation 10: Government should re-establish a dedicated fund for investment in university infrastructure, to ensure the ongoing quality of teaching and research facilities, and in turn maximise student experience.

Recommendation 11: Policy settings relating to visas and offshore learning should be made more flexible to adapt to changing methods of teaching delivery for international education, and to ensure Australia remains a competitive destination.

A Sustainable Research System

Recommendation 12: The full costs of research, covering direct and indirect costs, should be funded by government to secure Australia's future prosperity.

Recommendation 13: The preferred mechanism to fund the full costs of research is through national grants agencies such as the Australian Research Council (ARC) and National Health and Medical Research Council (NHMRC).

Recommendation 14: Grant schemes should avoid calling for universities to co-fund the direct costs of research to increase accessibility for all universities.

Recommendation 15: The Government should commit that all new research funding opportunities it announces will include full economic costing of research.

Recommendation 16: Policies should be developed to drive greater industry involvement in R&D through partnerships with universities, including (for example) through tax incentives, co-investment incentives and procurement policy.

Recommendation 17: The R&D tax incentive should be amended to include a 'collaboration premium' for research conducted in partnership with publicly funded research organisations.

Recommendation 18: SMEs need greater access to R&D tax incentives and other incentives, including vouchers, to partner with universities on R&D.

Recommendation 19: Reform of migration settings should be undertaken to better attract and retain international PhD students and postdoctoral researchers.

Recommendation 20: Domestic PhD students should be supported through enhanced financial support and greater industry linkages.

National Skills Agenda: The Changing Nature of Learning and Teaching

Recommendation 21: Government should consider how to incentivise and support lifelong learning and ensure equitable access for all as an important part of career development, as well as a critical feature of workforce development to support both employees and employers.

Recommendation 22: Government should expand HECS-HELP type loans to cover lifelong learning opportunities.

Recommendation 23: Government should remove the restriction that education expenses can only be a personal tax deduction if the study relates to current employment.

Recommendation 24: Work should be undertaken between the Commonwealth and state governments to better harmonise regulations and funding models covering the different types of education.

Recommendation 25: A national Recognition of Prior Learning framework should be established to provide a uniform standard of recognition, and promote further lifelong learning.

Introduction – About UNSW Sydney

UNSW is one of the world's leading research and teaching-intensive universities, known for innovative, pioneering research and high-quality education with a global impact. Since our foundation in 1949, our aim has been to improve and transform lives through excellence in research, outstanding teaching and a commitment to advancing a just society.

UNSW is ranked in the top 50 universities globally with more than 65,000 students and 7000 staff. Our *2025 Strategy* commits the University to 'Academic Excellence', 'Social Impact' and 'Innovation and Engagement', ensuring that our work supports improved quality of life for people in Australia and around the world, training students to meet the needs of the workforce of tomorrow, while also supporting the exchange of knowledge with the broader community, in turn opening up new economic opportunities.

1. The role of Australia's university system

Important assets contributing to national prosperity

At UNSW, it is our fundamental belief that universities are public institutions whose work should contribute to the broader community. They are institutions that not only benefit those who study or work within them, but also serve as national assets whose teaching and research outputs directly contribute to national priorities, build prosperity and improve society. At the centre of our mission is our student community, who are integral to these activities, and whose experience anchors the teaching and research activities undertaken at UNSW.

Solutions to grand challenges facing society

The university students of today need to be equipped to meet the challenges of a rapidly changing world in the future. As was highlighted in 2022, meeting the jobs and skills requirements of employers is critical for Australia. Ensuring our students receive a world-class education that equips them to meet these requirements, and the emerging challenges of the workforce, is central to the teaching activities undertaken by universities.

Addressing climate change is an immediate priority in Australia and around the world. Universities conduct research that is essential to understanding the challenge of climate change, and develop a wide range of solutions from new energy technologies and waste recycling, to sustainable building practices and construction materials, better city design and transport, agricultural and behavioural solutions. To demonstrate our contribution to addressing this challenge, at UNSW we are proud of the work of our researchers in developing solar photovoltaic technology, today used in more than 90 percent of all solar energy worldwide and underpinning an industry worth more than $200 billion worldwide. Many other technologies, across a range of fields, that will contribute to a sustainable low carbon economy are in development at UNSW today, while other researchers are working on how to address climate change through public policy, or understand its implications for our health. Just as importantly, universities will also play a critical role in training the workforce of today and tomorrow with the skills they need to build Australia's emerging low carbon economy.

Similarly, recently announced partnerships in climate, energy and defence highlight the central role universities will play in Australia's ability to meet its strategic goals. As the Government has already acknowledged, universities will play a critical role in training safe nuclear engineering skills to the workforce operating and maintaining our nuclear submarine fleet, while a range of research undertaken at universities continues to be translated into new defence and security hardware. Our expertise in fields such as cyber security, quantum engineering and artificial intelligence will all be critical as Australia builds its strategic capability under this new partnership.

Like many universities, we are also proud of our contribution to the national response to COVID-19. Our researchers played a leading role in supporting public health efforts to address COVID-19, advising health authorities, working with communities to increase their uptake of vaccination, or helping to address other impacts of the pandemic such as mental health. Universities undertook research leading the development of vaccines, and supported the testing of vaccines before they were released. At UNSW, our new RNA Institute will support efforts to further develop local RNA manufacturing capability, and we are confident the outcomes of research conducted there will lead to improved health and medical outcomes for the community into the future.

We are also home to a leading medical school whose 300 or so annual medical graduates, to be joined shortly by a similar number of professionals in allied health, join the workforce in a sector experiencing significant skills shortages, with increased demand as Australia's population ages.

With a range of grand challenges facing Australia and the world, and with universities ideally placed to contribute to meeting those challenges, the focus of this Accord should be setting up a system that supports our finest minds to meet these challenges.

Driving economic growth for all

The economic benefits of being a graduate are well established, principally realised through higher wages. A 2022 Deloitte study, commissioned by UNSW, found that a UNSW graduate earns on average 41 percent higher wages over their lifetime, compared to those with only a high school qualification[1]. Those with a postgraduate qualification earned a further wage premium of 18 percent[2]. These graduates also contribute to society through their capabilities as well as through contributions via the tax system.

Thus the benefits of graduates entering the workforce extend beyond the employment opportunities and wage premium experienced by individual graduates. There is a growing body of evidence demonstrating that the benefits of a university education, and indeed university research, flow through to the economy overall.

The same Deloitte report found that UNSW's 75,000 working alumni generate $3.4 billion of economic activity each year, with each alumnus unlocking $24,600 in public benefits for broader society. These benefits include additional taxation revenue, new capabilities amongst the population and productivity spillovers, which in turn translate to the creation of new jobs and wage increases, even for those without a degree[3]. Indeed, both this Deloitte report and previous reports concluded that 55 percent of the benefit to the economy from each graduate was a public benefit, compared to a 45 percent private benefit[4].

Similarly, university research has been found to be an important economic investment for the nation, with on average a $5 return to GDP for every $1 invested[5]. In practical terms, the translation of research into real-world applications often underpins the development of new industries, with new enterprises formed and jobs created. This is especially important in 'advanced manufacturing' sectors, where successive government policies have identified an opportunity for Australia to build a competitive advantage.

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[1] https://www.unsw.edu.au/content/dam/pdfs/unsw-adobe-websites/about-us/reports-publications/2022-12-DAE-UNSW-Economic-Contribution-Final-Report.pdf, p16

[2] Ibid

[3] Ibid

[4] Ibid at p25, and OECD (2018), *Education at a Glance 2018: OECD indicators*, OECD Publishing, Paris, Indicator A5.3.

[5] https://www.unsw.edu.au/content/dam/pdfs/unsw-adobe-websites/about-us/reports-publications/2022-12-DAE-UNSW-Economic-Contribution-Final-Report.pdf, at p27. See also https://www.universitiesaustralia.edu.au/publication/the-importance-of-universities-to-australias-prosperity/

Universities of the future: Challenges and opportunities

The Universities Accord comes against the backdrop described above, with the sector playing a vital role in contributing to the nation's skills and research requirements, but also with considerable emerging challenges to its ongoing ability to sustain its contributions.

Australian excellence supporting national prosperity

The opportunities for Australia to capitalise on its world-class universities extend broadly from their role in driving the evolution of Australia's economy, to supporting broader national policy goals and improving quality of life. Universities are a central pillar in Australia's efforts to drive national productivity, through the creation of new knowledge through research, and the dissemination of that knowledge through teaching. Indeed, the recent *5-Year Productivity Inquiry* made a number of recommendations pointing to the importance of growing access to tertiary education and supporting a culture of lifelong learning[6].

According to the OECD, Australia is ranked 74th in the world in terms of economic complexity, demonstrating the national economy's reliance on producing raw materials[7]. The transition to a more sophisticated economy is critical for our ongoing prosperity and resilience. Universities are central to this transition, building a national economy where a greater proportion of national wealth and income is based on advanced technology and high value skills.

There is already a skills shortage across a range of occupations, including those expected to be critical for our future economy. Most professional occupations are trained at university, and at UNSW, approximately half of all domestic students are enrolled in courses that map to jobs in critical shortage[8]. More generally, skills such as creativity, critical thinking and problem solving are regularly identified as being in high demand, and these are central elements to the education in many disciplines at university, ranging across both STEM and humanities. If Australia is to take a leading role in new technologies such as (for example) quantum computing and artificial intelligence, a university education will be critical to ensure a skilled workforce can undertake these jobs of the future.

Universities offer opportunities to Australia that extend beyond economic prosperity. As already outlined, our sector is ideally placed to develop solutions to the grand challenges facing Australian society and people around the world. The sector is also an important asset for Australian foreign policy's objective to project soft power, as universities educate students from all over the world and disseminate research findings that can solve challenges facing other nations.

Finally, it needs to be recognised that a university education will be a key enabler of any government efforts to tackle rising inequality. Being a university graduate can be transformative in that it opens access to careers and opportunities, while at the macro scale it can underpin social mobility and transform the lives of the student, their family and community.

To realise these and other opportunities, there are some major and structural challenges the Accord should consider, while also planning for what Australia and our higher education system will look like in the future.

A vastly different environment

First and foremost, it should not be assumed that the current conditions in the higher education sector will continue indefinitely into the future, or indeed even in ten years' time. For example, while there is currently a strong overseas appetite for an Australian education, demand may decline in the future, as

[6] https://www.pc.gov.au/inquiries/completed/productivity/report/productivity-recommendations-reform-directives.pdf at Reform directives 3 and 4.
[7] https://oec.world/en/rankings/eci/hs6/hs96
[8] https://www.unsw.edu.au/content/dam/pdfs/unsw-adobe-websites/about-us/reports-publications/2022-12-DAE-UNSW-Economic-Contribution-Final-Report.pdf, at pp39-43

other countries improve their domestic university system(s), or external factors (such as economic or geopolitical factors) make an overseas education less attainable.

Sustainability

A major challenge for the sector is that universities are being called upon to educate more students to meet the nation's skills requirements but without a commensurate increase in resources, against a background of rising costs, and as the sophistication of equipment and global expectations rise. Further, time-adjusted funding per student has declined over the recent decades. University infrastructure requires new investment to ensure it remains fit for purpose, ultimately impacting student experience and research output. The abolition of the Education Infrastructure Fund (EIF) has taken away the only significant mechanism for universities to reinvest in significantly ageing education infrastructure, let alone provide newer, more 'fit for purpose' teaching infrastructure into the future.

The closure of Australia's borders in 2020 demonstrated the challenge of relying on international student revenue to cross subsidise other university activities, such as teaching domestic students and especially research. While international education is currently a major export for the nation, there is a multitude of factors that could limit the sector in the future. For example, if universities in the home countries of students heading to Australia improve their rankings and capabilities, that may impact demand here. Indeed, this has already been the case in some source markets, such as Singapore and Hong Kong. Geopolitical and economic factors may also limit the number of international students seeking an Australian education in the longer term. To ensure the university sector's long-term sustainability, it is critical that this cross-subsidy is addressed by the Accord. Indeed, while international education is an asset for the sector, and should remain an important feature of the higher education system, the use of cross-subsidies risks sub-optimal policy decisions being made for both international education, and the functions it cross subsidises, such as research and the quality of education for domestic students.

The introduction of Job Ready Graduates in 2020 saw an increase in the number of student places, but without an increase in funds to account for those additional places, and a change to the funding formula for individual programs that in some cases no longer covers the full cost of teaching of those programs. While these changes were designed to incentivise students to study fields relating to areas of skills shortage, they were accompanied by the decoupling of teaching and research funding, with funding for teaching intended to only cover the cost of teaching that course. There are a few reasons the new formula does not cover the full cost of teaching certain courses. Chief among them is that the cost of capital items, such as equipment in teaching labs, is not factored into the cost of teaching. It also costs more to educate a student in engineering (for example) at UNSW than at some other universities, as we have decided to invest in high-end equipment to support our teaching and research across the fields of engineering. Universities should have the discretion to be able to determine which fields they want to excel in, and invest accordingly, rather than being forced to spend within a defined limit.

At UNSW, this means that we are financially disadvantaged and need to find additional revenue to cover the costs of each place we offer for science and engineering students, despite these courses aligning with areas of national skills shortage. The review of Job Ready Graduates being undertaken in conjunction with the Accord should address this.

One feature of Job Ready Graduates that was welcomed was the indexation of growth funding for universities. This should be an ongoing feature for the sector's funding from government.

Recognising that government's ability to fund the sector is finite, the key feature of any funding model underpinning both infrastructure and recurrent spending in the university sector should be its reliability, giving providers certainty to allocate their resources and plan for the future.

Industry engagement

The Australian university system would benefit from a higher level of industry involvement, in terms of collaboration on teaching activities, and partnership on research. Industry stands to benefit from a successful university system, being able to draw on world-class graduates to fill their workforce, and in some cases share in the value of newly developed research outputs. However, this will require work on both sides, universities must continue to be welcoming and efforts must be made to allow industry to find the right pathways into universities.

Work Integrated Learning (WIL) is a particular area where greater industry involvement would lead to more benefits for participants and the nation. Australia should look at the highly successful Canadian model where WIL is funded by government. Organisations like Co-operative Education and Work-Integrated Learning Canada (CEWIL Canada)[9] help facilitate WIL opportunities between universities and industry through government assistance.

This report notes that in Canada, "each year, over 200,000 students and partner organizations participate in various work-integrated learning experiences in Canada. Since 2017, WIL programs funded by the Government of Canada have decreased barriers and increased access for tens of thousands of students." A commensurate number of WIL experiences each year would be a significant advance for Australia.

At the moment, the *APR.Intern* program provides internship opportunities for PhD and Masters by Research students. However, we have no such programs for undergraduate and postgraduate coursework students.

Moreover, WIL takes many forms in Australia. Fields like engineering require a standard 60 days of paid industrial training at an appropriate work site. Other fields allow unpaid internships, while others provide for "industry exposure". An assessment needs to be carried out to determine the suitable level and nature of WIL for various fields of education (for example, engineers vs doctors vs teachers). The focus should be on ensuring that every graduate is imminently employable. Industry also needs to take responsibility for developing students through WIL and other initiatives such as participating in guest lectures. Moreover, industry graduate programs and professional development of their graduate employed staff also needs to be encouraged.

Government can play a role in catalysing these relationships, by incentivising industry to participate in Work Integrated Learning (WIL) and lifelong learning activities, as well as supporting greater participation of industry in research. Shared academia/ industry roles are common overseas, but almost unheard of in Australia. Supporting the establishment of such positions could yield closer linkages, as would nurturing programs that make it easier for academics to move back and forth between academia, industry and/or public service roles without adversely impacting their career.

To ensure Australia has a workforce that is 'future ready', industry needs to be a major participant in the post-secondary school education system, supporting its workforce to undertake lifelong learning and in some instances participating as an education provider directly.

Further discussion on the role of industry in research is included in Part 3 of this submission.

Recommendation 1: Decisions around long-term policy settings should not assume that current conditions will continue over the longer term.

Recommendation 2: One large, reliable, funding source is preferable to lots of little funding schemes. Reliability of funding should be the key feature of any funding model for the higher education system.

[9] https://www.cewilcanada.ca/CEWIL/Updates-and-Events/Updates-and-News/2023/CEWIL-Response-to-Budget.aspx

Recommendation 3: Universities should be able to allocate their funds to the different activities they undertake, according to their long-term strategies and meeting student needs.

Recommendation 4: Mechanisms should be established to facilitate and incentivise industry participation in post-secondary school education activities, as a partner for teaching and research activities.

Recommendation 5: Academic staff should more easily be able to move between academia and private or public sector roles, and then be able to return to academia. Shared academic/ industry roles or designated secondment programs and support to return to academia could support this.

2. Access and Opportunity

At UNSW, we're aware of the transformative power of education, enabling opportunities for people from a diverse range of backgrounds. Education plays a key role in social cohesion and inclusion. Particularly within more disadvantaged communities, an individual's opportunity for university attainment not only transforms their life but that of their family and surrounding community. However, it is just as important to note that wide and equitable access to higher education contributes to maximising Australia's human capital, allowing the nation to draw from a larger, more productive and more diverse workforce, while also better sharing the prosperity that results from education.

Overcoming barriers to entry

There is strong evidence that students from under-represented backgrounds do aspire to attend university, but often require assistance in navigating educational pathways and bolstering their expectations that higher education is an accessible, worthwhile and financially viable option[10]. In addition to managing expectations, the achievement of a sufficient ATAR to enter their desired course is for many students a further barrier, given the challenges often faced by students from low socio-economic backgrounds in achieving higher ATAR scores[11]. Therefore, the creation of entry pathways outside of ATAR scores has occurred to make university more accessible to under-represented cohorts in higher education. While the ATAR should always remain a feature of university admissions, alternative entry pathways should also be acknowledged as appropriate and valuable, and are now operating widely.

Many universities, including UNSW, have developed outreach programs such as our *Gateway Admissions Pathway Program*, that work with secondary school students from under-represented backgrounds to build their aspirations, and then include entry pathways to university that include early conditional offers, as well as supporting those students to succeed once at university. Importantly, these are measures that increase the overall cohort of students from under-represented backgrounds attending university, rather than simply attracting students who might otherwise attend another university.

University-led outreach programs will remain a critical tool to overcoming barriers to entry to university. However, there are opportunities for government to complement and support these efforts. For example, government could support efforts to define and identify different equity categories used to target prospective students.

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[10] Bok, J. (2010) *The capacity to aspire to higher education: 'It's like making them do a play without a script'*, Critical Studies in Education, 51:2, 163-178, DOI: 10.1080/17508481003731042

[11] See for example Harvey, A., Brett, M., Cardak, B., Sheridan, A., Stratford, J., Tootell, N., McAllister, R., Spicer, R. (2016). *The adaptation of tertiary admissions practices to growth and diversity*. Retrieved from https://www.ncsehe.edu.au/wp-content/uploads/2018/06/51_LaTrobe_AndrewHarvey_Accessible_PDF.pdf

Increasing the proportion of students from low-socioeconomic backgrounds would be assisted by the reintroduction of demand-driven funding to provide Commonwealth supported places for domestic undergraduate university students, as per the recommendation of the Productivity Commission's recent 5-year Productivity Inquiry[12]. A previous report by the Productivity Commission in 2019 found that the demand-driven model in place from 2010 to 2017 facilitated the lifting of access rates for several equity groups, most notably students from low-socioeconomic backgrounds[13]. Although this increase is proportional to the overall increase in university enrolments during that same period, a modified version of this funding model could help lift the number of students from under-represented backgrounds applying for university alongside targeted alternative pathways.

Driving success

While the focus on improving equity and access is welcome, it is critical that any policy considerations include a drive to ensure those students succeed at university and upon graduation. Further, these students should be enabled to choose any university they wish, aspiring equally to world-leading universities in another town or their local institution. At UNSW, our experience has shown that with the right conditions and support, the success rate of equity cohorts is substantially the same as other cohorts of undergraduate students. For example, in 2021 students enrolled at UNSW under the Gateway Admission Pathway and Program collectively passed 93 percent of all their subjects, the same as the broader domestic undergraduate cohort that year, while in 2022, there was once again a similar rate of success amongst both cohorts.

It might be argued that ensuring under-represented students are preferentially directed towards universities which have the highest student retention, employment and average salaries in the country would be significantly better for the individual students as well a far more effective approach to address long-term cumulative community disadvantage.

Support measures to drive success include targeted early orientation and transition support for students, financial support, targeted and effective academic support, preparatory course offerings, and holistic support programs, such as affordable on-campus accommodation, mentoring and supporting their efforts to find meaningful employment in their chosen career upon graduation.

It should be noted that financial factors facing students are often critical to supporting their success, as those students who need to seek a job while studying are often limited in the number of hours they can commit to their studies. Furthermore, for students living away from home, accommodation is an increasingly major financial hurdle to be able to study. Government could greatly support the efforts of universities and students to succeed by helping to address these challenges. Measures that should be considered include extending student support payments, matching university scholarships or allowing for the limited use of HECS-HELP style loans to cover accommodation and other cost of living expenses (with zero indexation to prevent unsustainable debt accumulation). All of these could make a significant difference to driving success by under-represented cohorts of students at universities.

Recommendation 6: Any policies designed to increase access to university places for low-socioeconomic and other equity cohorts of students need to also ensure that support is provided for those students to succeed at university.

Recommendation 7: Demand-driven funding should be extended to all domestic undergraduate students from low-socioeconomic backgrounds.

[12] https://www.pc.gov.au/inquiries/completed/productivity/report/productivity-volume8-education-skills.pdf
[13] https://www.pc.gov.au/research/completed/university-report-card

Recommendation 8: Consideration should be given to extending student support payments, or the ability for limited use of HECS-HELP style loans (with zero indexation to prevent unsustainable debt accumulation) to meet cost-of-living expenses while studying.

3. Student experience

At UNSW, optimising student experience has been a major priority in recent years. While there are a range of factors we are working on, there are a small number of measures that government should seek to address to contribute to improving the student experience.

Quality teaching

All universities constantly seek to improve the quality of their teaching, to attract students, to maximise the quality of their education, and to build overall student experience. At present there is a range of Federal Government initiatives and schemes that support university research. However, there is no equivalent support for teaching activities. Previously, the Office of Learning and Teaching (OLT) provided grant funding and other initiatives to provide this support. The re-introduction of an entity focused on supporting and highlighting best practice in tertiary education like the OLT should be considered to support quality teaching.

By way of overseas example, the UK has the *AdvancedHE* higher education academy. While *AdvancedHE* appears to be expanding to Australia[14], we should consider establishing a similar entity at Commonwealth level that focuses on innovation in education, developing professional development of staff at universities, and teaching linkages with VET. Moreover, professional development needs to focus on all staff involved in teaching, including (for example) academic staff, professional staff, technical staff, and casual staff. Such an entity could provide funding for education initiatives in a similar way to how the ARC and NHMRC provide support for research, recognition of achievements through awards and possibly 'Fellow' status similar to *AdvancedHE*.

University infrastructure

The success of Australia's university system relies on quality infrastructure, to be used for teaching and research activities, and ultimately underpinning the quality of students' experience. Several mechanisms have previously existed to support university infrastructure, including most recently the Education Infrastructure Fund which was closed in 2019 in line with a 2014 decision of the Abbott Government, with its funds redirected to natural disaster funding. The result is that today no funding measure exists to support sector-wide investment in infrastructure.

The Higher Education Infrastructure Working Group Final Report in 2015 noted that there is a strong argument for public funding in infrastructure, and that the benefits of previous investments were apparent in both teaching and research[15].

Recommendation 9: Government should establish an entity within the Department of Education focused on supporting and highlighting best practice in tertiary education to support high quality teaching and student experiences.

[14] www.advance-he.ac.uk/about-us/strategic-advisory-groups/australasian-strategic-advisory-board
[15] https://nla.gov.au/nla.obj-3072760614/view

Recommendation 10: Government should re-establish a dedicated fund for investment in university infrastructure, to ensure the ongoing quality of teaching and research facilities, and in turn maximise student experience.

International students

The benefits of international education are well established. International education is Australia's fourth largest export industry, and leading service export. Of note, most of the economic benefit of international education is realised outside of the university sector, through the broader visitor economy such as accommodation, retail and food outlets. A study released by the Mitchell Institute in 2020 estimated that businesses in Kingsford alone benefited to the value of $335 million in 2019, due to spending by UNSW international students[16].

However, the benefits of international education extend well beyond their contribution to the bottom line of universities, and their contribution to the wider economy. International education has helped develop long-lasting cultural and diplomatic ties, and plays an important role in Australia's soft power profile, promoting Australia and our values to the world. The positive relationship students returning to their home country have with Australia has led to enormous benefits when those returning students have subsequently reached leadership positions in government and business. The presence of international students studying in Australia also brings cultural diversity, alternative perspectives on topics, helping local students form more informed opinions and a deeper understanding of global issues and foreign affairs.

Longer term, a vibrant international education sector can play an important role in a successful skilled migration program for Australia, attracting the world's best minds here to study, conduct research, and participate in a range of endeavours.

However, to ensure the ongoing success of international education in Australia, some policy settings need to adapt to the changing nature of how international education may occur. Increasingly, education may be conducted offshore or through hybrid or blended teaching methods. The challenge for government policy is to adapt to these new methods of teaching as they evolve, while ensuring that Australia remains a competitive destination. This will include changing recognition of online studies and mutual recognition of overseas qualifications, as well as visa settings that make it easier for students learning through a range of modes to come to Australia as part of their studies, and with incentives such as post-study work rights remaining competitive and appropriate.

Recommendation 11: Policy settings relating to visas and offshore learning should be made more flexible to adapt to changing methods of teaching delivery for international education, and to ensure Australia remains a competitive destination.

4. Research

As already highlighted, university research is critical to national prosperity. Not only does each dollar invested in research generate $5 of benefit to GDP while supporting job creation, but research improves Australia's economic sophistication, which is key to long-term competitiveness and resilience in the face of any shocks. The COVID-19 pandemic shone a spotlight on the importance of sovereign capability – the ability to develop and provide important goods and services in Australia as global supply chains are disrupted.

[16] https://www.smh.com.au/national/it-s-not-just-a-university-problem-the-drop-in-international-students-being-felt-across-sydney-s-suburbs-20200612-p551yu.html

Research is critical to Australia for reasons that extend beyond economic benefits, contributing solutions to a number of grand challenges facing the nation and world. Important public policy questions ranging from climate change to defence or healthcare for an ageing population all benefit from the contribution of research expertise, much of it originating at Australia's universities. Countries that have vibrant research cultures have cultures of innovation, entrepreneurship, and often enjoy cohesion and social progress.

Sustainable research funding

Research at Australian universities is currently funded in an unsustainable way, to the extent that the overall long-term sustainability of Australia's research sector cannot be guaranteed.

Australian universities fund research through a combination of sources. Research income received through nationally competitive grant programs covers a portion of the direct costs of research, such as salaries and project costs (for example, small equipment or consumables), often supplemented by institutional investment. The indirect costs of research are funded by a combination of Research Block Grants, some grants and contracts where the indirect costs of research can be included in the budget, and cross-subsidisation from other sources such as international student fees, philanthropy income, and investment reserves.

A major challenge facing Australia's research landscape is the substantial gap between external R&D funding and the full economic cost of research. The Group of Eight universities have estimated that for every $1 in external research income received, an extra $1.19 is needed to cover the indirect costs of research[17], on top of the $0.19 that is awarded through the Research Support Program (RSP) component of the Commonwealth Research Block Grants (RBG) for this purpose[18]. Universities therefore must redirect funding from other sources to cover this difference. By way of example, UNSW's 2021 external (HERDC) research income was $535 million, which required an additional $636 million in indirect costs to be covered by UNSW.

However, the problem is broader than just the indirect cost of research. A significant challenge is that even the direct costs of research are not currently being met.

Direct costs of research

In many cases, funders do not cover the full direct costs of research, forcing universities to make supplementary investment to ensure these are met. Firstly, the amount requested in grant applications is rarely awarded by major funding bodies. In 2022, the average return rate on requested funding for successful UNSW ARC grants was 86 percent (excluding Centres of Excellence), equating to a $9.7 million funding shortfall. While the return rate for successful NHMRC grants was 98 percent, the NHMRC awards their own standard salary rates which are substantially lower than the actual salaries for research support staff required by Enterprise Agreements. For external fellowships (for example, ARC DECRA, Future Fellowships, Laureates and NHMRC Investigators), universities are also required to cover the gaps between the salary rates used by the Councils, which are lower than the actual UNSW rates. UNSW spends approximately $13 million per year to cover this salary gap.

Secondly, the leveraging requirements contained in the various grant schemes are also intensifying, with co-investment from universities regularly forming part of the actual or implied grant requirements, further burdening the limited resources of universities[19]. For example, the ARC Centres of Excellence

[17] Indirect Costs of Research (ICR) are generally accepted to include costs such as research infrastructure, facilities and services that are used to undertake relevant projects including the provision and maintenance of buildings and physical infrastructure, information resources and technology, UNSW libraries, telecommunications, insurance and legal services, financial management services, security, research management and support services, other central and faculty administrative services.

[18] Collated by Sydney University for the Go8, based on 2016 data from all eight member universities.

[19] Note only some schemes such as the ARC Centres of Excellence, Linkage, Infrastructure, Equipment and Facilities (LIEF) and Industrial Transformation Research Program (ITRP) explicitly require an institutional contribution to meet the application eligibility criteria. However,

scheme sees UNSW directly funding a cash contribution in the ratio of 1:4 of the final project costs. In 2022, UNSW invested $66 million in leveraging funds. To accurately cost and consider the full economic cost of research, the underfunding of grants and the co-contributions from institutions first needs to be recognised and addressed. The very idea of leverage and matching funds punishes success and works against excellence. The rationale for leverage is not at all clear and must be re-examined.

Indirect costs of research

The Research Support Program (RSP) component of Research Block Grants is the central tool that the Government uses to support universities in financing the underpinning costs of research. This Program is severely underfunded, making up only 14 percent[20] of the estimated costs it is intended to cover, and the situation is worsening. For example, the Government has introduced additional major research funding opportunities into the sector in recent years via the Medical Research Future Fund ($650 million annually) and the University Research Commercialisation Action Plan ($2.2 billion). However, there has been no commensurate, or indeed any, increase in funding to the Research Support Program over and above the rate of inflation. The impact of this has seen the average RSP component for each dollar of investment in Category 1-4 research grants trend downwards, from $0.22 of funding per dollar in 2021, to $0.20 in 2022, and then to $0.19 in 2023. This is also reflected in the widening gap between the increase in national HERDC income (9.7 percent) and overall Research Block Grant (1.2 percent) over 2019-2021, which has stretched even further the limited pool of funding for the indirect costs of research.

Where possible, UNSW applies Minimum Economic Cost Recovery principles (MECR) to external research grants and contracts that meet set criteria. Despite this, a large portion of funders (for example, ARC, NHMRC, MRFF) do not allow institutions to charge MECR. We would be pleased to provide the MECR rate that UNSW applies to eligible grants and contracts to the Accord Panel separately to this submission on a confidential basis. While this internal process goes a small way to offsetting the indirect costs of research, it is heavily restricted in the contracts on which it can be charged and therefore is not scalable.

A holistic, agile and sustainable funding model: Funding the full economic cost of research

The current research funding system is in significant need of an overhaul to close the growing gap between research funding provided by the Government and the true end-to-end cost of research. This is critical to fund the continued research excellence from Australian universities, and vital to the nation's modern economy. The 2008 Cutler Review explicitly recommended fully funding the costs of university research activities, and cited overseas evidence in making its recommendation[21].

Our proposed solution is for government research funding to be provided to the national research councils (i.e., the ARC and NHMRC, and also MRFF based on size of funding) to adopt an evidence-based Full Economic Cost (FEC) approach to grant funding.

We strongly support moving to funding full economic costing of research through the national granting bodies for the following three reasons:

1) This move rewards excellence, in that funding is awarded to those applications that are most deserving of receiving grants no matter which institution or agency they work for.

in a number of other schemes it is strongly recommended as an institutional contribution is seen to enhance the competitiveness of the application.

[20] If we consider the total cost of research as $1.19 + $0.19=$1.38, the RSP component is 0.19/1.38= 13.76%.

[21] Cutler, T. (2008) *Venturous Australia: building strength in innovation* [The Cutler Review], at Recommendation 6.1. Retrieved from https://www.voced.edu.au/content/ngv%3A12472

2) Full economic funding through the grant bodies is more equitable, in that all institutions are able to apply for funding without the ability to co-fund a significant portion of that research (which currently inhibits or excludes many institutions from participating).
3) Moving to full economic costing of research through the granting agencies sets an important standard that other funders of research from within government and industry could then be expected to follow.

As has already been noted, current funding levels and rates of increase are struggling to keep pace with the increased cost of research and research infrastructure. For example, the replacement cost for a multiphoton microscope installed at UNSW in 2015 for $998,000 was recently quoted as $1.424 million, while a baseline Transmission Electron Microscope that cost around $1 million a few years ago would now cost $1.6 million. While some of the additional cost may reflect improved technology, that is nevertheless important for conducting cutting edge research.

A particularly important reason to move towards funding the full cost of research is to move away from relying on cross subsidies from international students. This reliance places Australia's future prosperity at risk, as our research and its significant positive impact then relies on factors that take place beyond the nation's borders. With growing pressure to enrol additional international students to cover research costs, there is also the growing risk of sub-optimal decisions being made in regard to both international student and research policies.

For any solution to have lasting impact, it must be driven by a whole-of-government approach and underpinned by an ongoing and reliable financial commitment. While there are several options for addressing this challenge, our proposed solution corrects current deficits, and addresses future demands to ensure the long-term success of Australian research. It should also be simple.

A similar model exists in the United Kingdom, where national funders finance 80 percent of the full economic costs of projects via this method[22], although they require universities to find the balance (20 percent) from other sources.

In the Australian context and based on 2022 figures, the move to funding the full economic cost of research could be undertaken in stages, with preliminary modelling suggesting that an initial move to funding $0.35 in the dollar of the indirect costs of research estimated to cost $762 million per annum (2022 figures), while moving to $0.63 in the dollar would cost $1.37 billion per annum. Covering the full cost gap of $1.19 for each dollar awarded would cost $2.59 billion in additional government funding.

However, we believe (as below) that reforms to the unaudited R&D Tax Incentive to limit its use to genuine cases where it supports new R&D could provide savings to offset or cover the cost of directly covering the full cost of research.

Recommendation 12: The full costs of research, covering direct and indirect costs, should be funded by government to secure Australia's future prosperity.

Recommendation 13: The preferred mechanism to fund the full costs of research is through national grants agencies such as the Australian Research Council (ARC) and National Health and Medical Research Council (NHMRC).

Recommendation 14: Grant schemes should avoid calling for universities to co-fund the direct costs of research to increase accessibility for all universities.

Recommendation 15: The Government should commit that all new research funding opportunities it announces will include full economic costing of research.

[22] The UK Research and Innovation (UKRI) implemented a detailed FEC approach and committed UK research funding councils to fund 80% of the FEC - https://www.ukri.org/councils/epsrc/guidance-for-applicants/costs-you-can-apply-for/principles-of-full-economic-costing-fec/.

Industry participation in research

Australian business investment in R&D is low by OECD, and indeed world, standards, and has been in decline over recent years, from a peak of 1.37 percent of GDP in 2008-09 to 0.9 percent of GDP in 2019-20[23]. This is particularly the case with industry involvement in foundational research, whereas in countries like Germany, Japan, Israel and South Korea, there is a much higher base spend. To fully capitalise on the expertise at Australian universities, policy measures to incentivise greater industry participation in research should be considered.

At present, the major incentives for industry participation in research are through the R&D tax incentive. However, this measure is not achieving its stated objective. Many SMEs are not properly incentivised to fully take advantage of the incentives and participate in R&D, in part because of cash flow constraints and lack of finance. At present, a major criticism of the R&D tax incentive is that it is predominantly used to support reducing the tax burden of participants, rather than stimulating R&D as was intended. The 2016 *Review of the R&D Tax Incentive* made a number of recommendations to achieve better outcomes[24], including the introduction of a 'collaboration premium' for research conducted in partnership with publicly funded research organisations, but those recommendations have not been acted upon.

Incentivising industry to have greater involvement in early-stage research would provide an overall benefit across the research pipeline, in that industry partners would have sunk costs into the project and be incentivised to use the findings. Some other solutions worth considering to promote greater industry involvement in R&D through partnership with universities include:

- Modifying tax incentives to favour early-stage research.
- Extending tax incentives to cover the period when research outputs have reached market and are profitable.
- Tying government procurement to local investment in early-stage R&D. This has been attempted previously with significant positive outcomes[25].

There are already initiatives in place to incentivise collaborations between researchers and end-users. The Cooperative Research Centres (CRC) program includes at least one Australian end-user from the private, public or community sector, and at least one higher education research institution. The recent Trailblazer Universities initiative was successful in incentivising industry to partner with us, through the offer of government funding to match industry and university contributions. By leveraging industry investments, many more industry partners were incentivised to join our Trailblazer bids. However, it should be noted that these programs place a significant cost on universities in leverage. Other measures that contribute additional funds to leverage industry investments are worth considering to further incentivise industry participation in university R&D, without also placing a greater cost burden on universities. While there are co-investment schemes in operation already, they tend to operate at project level, and don't build long-term capability. Incentives could even cover the establishment of joint labs (for example).

SMEs in particular need greater support to participate in university R&D. The 2008 Cutler Review of the National Innovation System proposed making a tax credit of 50 percent available to SMEs (compared to 40 percent for large firms) and, also, recommended vouchers for collaboration between SMEs and public research organisations[26]. In addition, mechanisms to enable partnerships with SMEs to

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[23] https://www.abs.gov.au/statistics/industry/technology-and-innovation/research-and-experimental-development-businesses-australia/latest-release

[24] https://www.industry.gov.au/publications/2016-review-rd-tax-incentive

[25] For example, Canon's research arm, CiSRA, established a headquarters in Australia following similar incentives offered by the Australian Government of the day.

[26] Cutler Review, at Recommendations 8.3 and 9.5.

participate in R&D activities should be simplified to enable their participation. Processes could be scaled to a degree appropriate to the size of their organisation. Many researchers report SMEs being deterred from partnership owing to the onerous level of paperwork required.

Recommendation 16: Policies should be developed to drive greater industry involvement in R&D through partnerships with universities, including (for example) through tax incentives, co-investment incentives and procurement policy.

Recommendation 17: The R&D tax incentive should be amended to include a 'collaboration premium' for research conducted in partnership with publicly funded research organisations.

Recommendation 18: SMEs need greater access to R&D tax incentives and other incentives, including vouchers, to partner with universities on R&D.

The value of discovery research

Recent government initiatives have focused on the importance of commercialising research undertaken at universities. While the translation into real-world applications and engagement with end users is undoubtedly important, there also needs to be a renewed focus on foundational research.

Firstly, a discussion is required around the expectations government has placed on the university sector relating to commercialisation. Expecting academics to excel at teaching, research and entrepreneurship seems destined to result in disappointment, with a more reasonable expectation covering two of these three.

These expectations have been applied with little financial support, and often through the reallocation of existing support measures, such as the recent Research Block Grant formula modifications to preference industry income over publication. The Trailblazer experience already discussed might be instructive here, in that encouraging and supporting additional interaction between end users and researchers could result in more effective research translation than expecting academics to undertake entrepreneurial endeavours.

At present, Australia's national R&D effort across early translation readiness levels (TRLs) is predominantly undertaken by research institutions such as universities with the support of government. Without a viable product to commercialise or a direct linkage to a reliable revenue stream, there is little incentive for industry participation in research at these early stages. However, discovery research remains critical on several fronts. Firstly, the linkage at universities between research and teaching relies on discovery research as much as the research at later TRLs. Secondly, without discovery research there will be no pipeline of technologies to develop through the various stages of translation readiness before an industry (or other) partner is able to translate the research into a real-world application. Thirdly, research impact can be unpredictable, and in the past discovery research has led rapidly to developments such as number theory, cryptography, WiFi and penicillin. Finally, discovery research has value in increasing human knowledge and our understanding of the physical and social world, and helps build an inquisitive culture, which is inherently a good thing.

In terms of policy implications, government should ensure it directs its funding at research across the full range of TRLs, and especially at those early stages where there is limited scope for an external partner to support the research.

Developing our world-class research workforce

As well as funding Australia's world-class research effort, it is also important that we develop and retain the workforce able to undertake and disseminate that research. Many of the best researchers will be in high demand in private industry, or at overseas institutions, and with a reasonable degree of mobility, they will move to the location that best supports their efforts. Not only is it important that Australia remains an attractive location to undertake research, but it is also essential that we build a pipeline of researchers to continue that effort.

There are two areas where government policies can support the development of our research workforce. The first is through migration reform to better attract and retain international PhD students, who form a substantial component of Australia's research workforce. Competitive visa settings in terms of processing fees, wait times and work requirements can influence a prospective student's choice of destination, while in other instances, genuine temporary entry requirements can be onerous. The creation of a pathway to permanent migration is particularly desirable as a means to attract the world's best researchers to Australia.

The other area where government policy can support the development of Australia's research workforce is through better support for domestic PhD candidates and early career researchers.

Supporting domestic PhD students requires 'adequate' scholarships and stipends that account for cost of living pressures and the importance to Australia in the development of national research priorities. From the perspective of achieving the best research outcome, the best time for a student to commence a PhD is after they have accumulated around 3-5 years of experience working in industry. However, at this point in time they are likely to be earning a significantly higher wage than they will earn while undertaking further studies, and are disincentivised from doing so. A system of scholarships or stipends that accounts for rising cost of living pressures would greatly support growing the number of domestic PhD candidates.

The University Research Commercialisation Action Plan identified the challenge of relatively few PhD graduates working in Australian industry. A PhD program that addresses this problem would be beneficial in supporting our domestic research workforce, especially as they transition to industry based roles. Such a program could be an extension of existing schemes such as the 'Industry PhD' program, and should include the following elements to ensure the industry partner is invested in upskilling the student to support their enterprise, while also making the program more attractive to domestic PhD candidates:

- Co-funding from government and industry to ensure that both are invested in its outcomes, and that both benefit from the leverage of the other
- Co-supervision or joint supervision from suitably qualified industry representatives
- Some form of employment is guaranteed with the sponsoring industry

A large-scale co-funding scheme for PhD study could improve the innovation level in Australian industry, supercharge university research and in the process continue to bring universities and industry even closer together.

Supporting and upskilling that part of the domestic research workforce who will remain in academia is also important to ensure Australia retains the capability needed for the future. In many instances, funding uncertainty leads to early career researchers being hired on short-term contracts. Where these researchers seek more secure employment elsewhere, they are often permanently lost to Australia. Fully funded research would allow for longer term contracts, and the greater development of the research workforce. As has already been highlighted, the ability of academics to move between academia and private industry or public service roles would also be desirable, to allow for these people to return to the research workforce, and bring new perspectives with them.

Recommendation 19: Reform of migration settings should be undertaken to better attract and retain international PhD students and postdoctoral researchers.

Recommendation 20: Domestic PhD students should be supported through enhanced financial support and greater industry linkages.

5. The changing nature of teaching and learning

Lifelong learning for all

A growing trend in the workforce is the requirement for workers to regularly learn new skills and be adaptable as the skills required to do their job evolve over time. Indeed, today's graduates are likely to need different skillsets throughout their career, supported by ongoing learning. Universities are already well placed to address the need to upskill and reskill workers, with offerings ranging from Master's degrees through to micro-credentials, and emerging programs that take a different approach to education altogether, including integrating vocational education or curriculum co-design with employers.

However, for Australia to truly realise the benefits of ongoing education for the workforce, lifelong learning opportunities need to be widely accessible, and broadly appreciated as an important step in career development – addressing both supply and demand challenges. With the skills required by today's workforce rapidly evolving, ongoing education to adapt to these changes is more important than ever. Government and other stakeholders need to play a role in highlighting the importance of ongoing education after the completion of a Bachelor's degree, to the benefit both of the individual and, also, national productivity over the long term.

This will require cultural change, with the involvement of universities, industry and government all treating lifelong learning as a 'business as usual' activity'. With many lifelong learning options, such as micro-credentials, designed to be 'stackable', tracking an individual's learning through a central platform (for example, the myGov platform) would assist in building its standing.

Government's role however should also go beyond simply the promotion of lifelong learning. It needs to play a leading role in developing a framework around how such programs are funded, offered and made available, including accreditation through the Australian Qualifications Framework (AQF). The purpose of this Framework would be to ensure consistency in how these courses are offered.

There is already an existing and growing equity challenge where some employers pay for their staff to undertake further education, while others simply do not have the ability or desire to do so. This risks leading to a situation where employees in larger, wealthier, premium firms that see the value of further education will be able to partake in lifelong learning opportunities, while employees of small to medium businesses (SMEs), workers who move jobs more frequently, or those with less desirable employers risk being locked out of lifelong learning opportunities unless they can personally afford to pay for them. The framework should address this to ensure that access to lifelong learning opportunities is equitable, and that nobody is excluded from it. This is critical to establishing an inclusive society in the modern world.

A measure we propose to ensure equitable access to lifelong learning opportunities is to extend HECS-HELP type loans to students to cover lifelong learning opportunities. To ensure such payments are equitable and yet affordable, they could cover a finite number of units of study or could include the ability to access loans for additional units until reaching an appropriately set cap, similar to what is already available to domestic undergraduate students. A further measure worth considering is to remove the restriction that education expenses can only be a personal tax deduction if the study

relates to current employment. As the nature of work and the workforce rapidly evolving, the acquisition of skills is increasingly likely to be required to extend beyond the current workplace.

Recommendation 21: Government should consider how to incentivise and support lifelong learning and ensure equitable access for all as an important part of career development, as well as a critical feature of workforce development to support both employees and employers.

Recommendation 22: Government should expand HECS-HELP type loans to cover lifelong learning opportunities.

Recommendation 23: Government should remove the restriction that education expenses can only be a personal tax deduction if the study relates to current employment.

Building a holistic post-secondary school education system

For some time, different types of education have been available after secondary school, offering different types of education and training. Increasingly, there has been a need for building integration between these different types of education, to form a holistic post-secondary school education system.

To support the workforce of the future to access to the skills they need, it is likely that they will need training from a combination of provider types, including universities, VET, private providers, and industry-led training. However, to ensure appropriate policy settings, the discrete roles and responsibilities of each should be set out so that each category of provider is focused on what it is best able to deliver.

- Universities – education linked to cutting-edge research, with a focus on knowledge, theory and critical skills, including practical elements.
- Private providers – provide higher education focused on teaching, being aware of but not engaging in active research.
- VET providers – focus on the provision of practical workplace skills and technical knowledge.
- Industry-led training – focus on specific upskilling and reskilling of the workforce, often focused on the particular needs of a single employer.

These different categories of education provider each have their own role in the post-secondary school education system, and should be recognised as such. While there are small areas of overlap, they do not compete with one another, and policy settings should recognise their complementary nature.

Supporting enhanced linkages – Harmonised systems and Recognition of Prior Learning

Each of the different categories of further education listed in this submission is funded and regulated differently, meaning that any attempts to integrate them have some immediate challenges to overcome. Universities and VET providers such as TAFE are publicly funded and regulated, but with different contributions and funding models from state governments and the Commonwealth, and they are subject to completely different regulatory systems. While private providers are regulated by TEQSA, they are funded independently. Meanwhile, industry-led training has no single over-arching system of regulation, but may be subject to compliance with professional standards bodies (for example). There is already a degree of inter-operability between the different modes of training, but there is a role for government to support their better integration, including harmonised regulation and funding models.

To support students' learning pathways across these different forms of further education, consideration should be given to measures that support better Recognition of Prior Learning (RPL). Recognition of Prior Learning already widely occurs throughout the university system, but it is subject to each individual institution's different application of RPL. Developing a national framework would

establish a uniform standard of recognition, in turn providing clearer pathways and greater mobility between different categories of provider. With a clearer pathway to a formal qualification, this measure would also play a major role in supporting greater lifelong learning.

Recommendation 24: Work should be undertaken between the Commonwealth and state governments to better harmonise regulations and funding models covering the different types of education.

Recommendation 25: A national Recognition of Prior Learning framework should be established to provide a uniform standard of recognition, and promote lifelong learning.

Conclusion

Thank you once again for the opportunity to contribute to the Australian Universities Accord. We believe that the issues we have raised in this submission are critical to the ongoing sustainability of the sector. With a mission to develop knowledge, and contribute that knowledge to the benefit of the wider community, the Australian university sector is an important national asset. We look forward to working with the Accord panel to develop these ideas, to the ultimate benefit of the Australian population.

Should you wish to discuss any issue raised in this submission, please do not hesitate to contact our Head of Government Relations, Mr Robin Schuck, on 0411 124 258 or r.schuck@unsw.edu.au.