Australian Universities Accord Discussion Paper Submission

THE UNIVERSITY of ADELAIDE

The Australian Universities Accord

The Australian Universities Accord has the potential to drive lasting change and create alignment across Australia's Higher Education system. At the highest level, the Accord must consider how we create a fairer system for Higher Education and through that system ensure a more cohesive, harmonious society.

The University of Adelaide echoes the Group of Eight's (Go8) 2050 vision for education, research, and equity across the sector. This approach is not about fixing the current system but designing a new, fit-for-purpose system that will be informed by the issues identified in the operation of the current system. This submission outlines the University of Adelaide's position and in the attachments identifies systemic issues that need to be addressed in the short and medium term to achieve the collective 2050 vision.

The Accord process will include an examination of structural and mission adjustments to be able to achieve the necessary changes to transform the Australian Higher Education system over the next three decades. Indeed, as the University of Adelaide looks to the future state, we believe the goals and ambitions articulated for the South Australian *university for the future* would be well-aligned with the outcomes of the Accord process.

As articulated in the goals for the *university for the future* in South Australia, the Accord should look to improve access to Higher Education and retention, create a destination for leading research and study, and strengthen the foundations of the community through education.

The vision of a tertiary education system must be dedicated to ensuring the prosperity, wellbeing and cohesion of society by addressing educational inequality through actions and through the success and impact of learners, graduate researchers, staff and alumni.

The Accord is an opportunity to elevate and reiterate the purpose, value and role of Higher Education in Australia and to understand what society expects from the sector. In the 2050 vision of a knowledge-based economy, universities would play a central role in setting societal norms and in creating a civic-minded society through education and research. Universities would address factors linked to disadvantage, health, and mindset; facilitate meaningful engagement; help decipher multidisciplinary issues in a complex world across sectors; and play a stronger role in the nation's sovereign capability, stability, security and prosperity. Universities will also through their partnered future-making research be instrumental to Australia's economic growth that is required to achieve and maintain an equitable, prosperous society.

The Australian Universities Accord also provides a platform to define the principle-based changes needed to achieve the long-term vision for the sector and to ask the big questions around funding, governance, international education, research, collaboration, skills shortages and equity.

Funding & Governance

Addressing how the Higher Education system is funded is key to enabling a fairer system to achieve equity, access and diversity. In the 2050 vision for the sector both research and teaching would be enabled to succeed without the need for cross-subsidisation through dedicated resourcing for each. It would also protect the sector from the impacts of future shocks, possible (and likely potential longer-

term) declines in the international market and would also increase diversification in the system. How infrastructure including research-enabling infrastructure can continue to be funded in this future system, with reduced co-funding into the National Collaborative Research Infrastructure Strategy (NCRIS) by Universities, will also require specific attention.

The funding model of the system will also determine how the sector is positioned in the future, whether there is collaboration and recognition of diversity within the sector and areas of focus, expertise and specialisation for each university; or whether the model continues to create competition between institutions.

The Accord is a time for Australia to re-evaluate what revenue it is prepared to increase to achieve a fairer and more cohesive society going forward. This has already been proven to work in Nordic countries where Higher Education operates on the principle that everyone should have the same educational opportunities, regardless of their social or economic background. It is also the time to re-evaluate the fairness of the Higher Education Contribution Scheme/ Higher Education Loan Program (HECS/HELP) and acknowledge that under the current system going to university for some students could arguably put them at financial disadvantage. This is true for postgraduate as well as undergraduate study.

As part of the Accord, Australia must also develop a funding model that ensures quality education is maintained at all levels – primary, secondary, vocational and higher education; and ensure the country can pay for its own economic needs.

The Accord is an opportunity to review how policy is created and to reflect on the lessons learned such as from the Job Ready Graduate (JRG) Program – a program that disproportionately affected disadvantaged students without achieving its purpose of redirecting student preferences to specific degrees. The Accord should be positioned to depoliticise the Higher Education system and enable long-term planning and funding models that do not radically shift with a change of government. This could take the form of an independent body such as the Israeli Council for Education or UK Research and Innovation (UKRI) which Australia once had in the form of the National Board for Employment, Education and Training. A future model could take the form of a framework, or something else entirely, but the outcome should be the same – depoliticisation and providing long-term certainty for the sector.

Additionally, a single, uniform approach to governance and reporting that is cohesive and efficient must be adopted to enable Higher Education providers to do what they do best, rather than waste time due to over-reporting, duplicated and unnecessary compliance and needless red tape. The Australian Universities Accord provides the opportunity to reset the relationship between Government and the Higher Education sector, based on mutual trust and respect. The assessment of research excellence and impact should also be within scope, noting the ARC-led review process also currently being conducted.

International Education

Through the Accord, Government and the Higher Education sector must build resilience and agility within the international education sphere to safeguard from future significant system shocks. International Education should not be viewed as the major revenue source to compensate for the current funding shortage, but rather as a mechanism to better equip Australian students with the knowledge and networks to compete in global settings and to attract and retain talent to support economic growth and

prosperity of our country. The Accord provides a real opportunity to realign the strategic focus with diplomacy and diversity and away from a system that relies on a high volume, high tuition-fee model. International collaboration will be the key to addressing global grand challenges, such as climate change, national security, energy transition, food security, and public health crises.

The Future of Research

In terms of research, the Accord must look at how we stably fund ongoing, quality, impactful research for the nation. Research funding cannot continue to be dependent on cross-subsidisation from teaching and international students. In terms of the latter, COVID-19 has taught us that this is a high-risk strategy and cannot be relied upon in the long term as traditional source countries develop their own capacity and eventually become competitors. Research priorities for the country must have long-term funding commitments to build and sustain capacity. It is arguable that unconstrained enrolments in some fields can drive expansion of the academic workforce in areas that are not priorities and in turn take away able students and resources from areas which are national priorities. This must and can change through the establishment of a national research and innovation strategy and national science priorities.

Collaboration between Government, Industry and Higher Education

The Accord is a pathway to greater collaboration with government and should position the sector to present its true value to industry in a way that compels investment. A university education cannot be replicated, but it can and should be better integrated with other organisations and institutions. By fostering long-term links and collaborations between industry and Higher Education, an innovative research ecosystem that benefits all partners can flourish. This should also extend to enabling Australia's skilled industry and Higher Education workforces to move more freely in and out of industry/Higher Education providers, in order to better enable flexible, rapid and skilled responses to current and emerging national priority skills, workforce and research needs. The future research workforce should, during training, be enabled to work seamlessly across the industry-university nexus.

Addressing Skills Shortages and Supporting the Workforce Pipeline

Universities should play a central role in addressing skill shortages and supporting the workforce pipeline through training, upskilling and reskilling. Universities can use their individual specialisations in research and teaching excellence to address the skills shortages in specific fields in areas of priority in their jurisdictions and beyond.

The Accord provides an opportunity to assess skills shortages at a national level rather than a piecemeal approach from each state. It can facilitate a coordinated effort to ensure states are not competing for limited workforces, exacerbating issues in other jurisdictions for the same sectors, and instead collaborating to deliver a nation-wide approach to each sector's skills needs.

Equity and Lifelong Learning

The Accord can establish a seamless Higher Education system equitable for all Australians that builds social cohesion. This can be done by developing a highly connected, collaborative and complementary Higher Education sector to instil a culture of lifelong learning. As part of this, there must be a consideration of how government supports schools to nurture students throughout their secondary school journey to increase the number of students graduating from high school and broaden and diversify the cohort of students continuing on to tertiary study and, in particular, applying to university.

Australian Universities Accord
Discussion Paper Submission

Universities help people and communities to grow. They offer more than a degree. The transferable skills attained, the ability to think critically, the value of education and the role of universities to support and solve complex issues are all central to cohesive societies. Our economy and society are multidisciplinary, the big issues we face are multidisciplinary, and these needs and problems could be addressed through a multidisciplinary Higher Education sector. Universities are at the centre of the knowledge economy and the Accord gives the sector the opportunity to achieve an integrated education ecosystem and build on a joint 2050 vision for the sector.

However, this is all underpinned by and can only be achieved through a sustainable funding model for the system, and furthermore demands a system-based approach that is focused on the future state of Australia's economy and society. The reforms needed require contribution from stakeholders across the sector to recreate a resilient and effective Higher Education environment for future generations.

Attachments

- Attachment 1 – Funding & Governance
- Attachment 2 – International Education
- Attachment 3 – The Future of Research
- Attachment 4 – Collaboration between Government, Industry and Higher Education
- Attachment 5 – Addressing Skills Shortages and Supporting the Workforce Pipeline
- Attachment 6 – Equity and Lifelong Learning

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Attachment 1 – Funding & Governance

PRINCIPLE BASED CHANGE

- Support both research and teaching to succeed without the need for cross-subsidisation through dedicated resourcing for both.
- Enable education providers to do what they do best by creating a single, uniform approach to governance and reporting that is cohesive and efficient.

Funding

- Successive changes to university funding for learning and teaching and student eligibility for Commonwealth Supported Places (CSP) have included overall reductions in teaching related funding available to universities and significant changes to student contributions.
- One of the reasons for funding changes was to ensure that education delivery to domestic students did not cross-subsidise research costs. This did not acknowledge that individual providers are best placed to manage the allocation of revenue to teaching or research in ways that are consistent with their distinct missions.
- These changes have resulted in reducing university revenue associated with the provision of Higher Education to domestic students while disproportionally increasing student contributions in humanities/social sciences disciplines and reducing the total contribution in some key STEM areas. This needs to be managed more equitably.
- Transition arrangements had the effect of slowing revenue reduction between 2021 and 2023 for universities below the funding cap. However, the transition measures finish at the end of 2023. These need to be extended.
- Higher Education funding should be considered within a whole-of-government approach to recognising the broader benefits of Higher Education to national priorities such as defence, regional development, social welfare, mental health and wellbeing and to industry.
- The Accord should consider simpler funding arrangements such as a single incentivised performance-based funding allocation model as part of the institutional compact process. This new funding arrangement would recognise the full cost of teaching and re-establish the relationship between student contribution and potential future earnings. The funding model should provide stability and sustainability.
- New funding models should also include differential funding for institutions to recognise the additional costs incurred in supporting the enrolment and retention of non-traditional/equity group students.

- The current funding model pressures universities to decide between maintaining student experience or maintaining research intensity. With the current lagged indexation model and the lead time required to rebuild international student pipelines, wage and cost inflation is putting universities under increasing financial pressure.

- Research growth opportunities and teaching innovations in an increasingly digital world require upfront investments and often co-contributions with funding bodies that further constrain universities from differentiating.

- Additionally, there is currently no specific funding for broad infrastructure development, and it is becoming increasingly difficult to run universities with the current levels of domestic funding. Even where dedicated funding is available, for example through NCRIS, high levels of co-funding are required. Funding must be more realistic, especially when it comes to physical and technological infrastructure. These underlying costs that are not supported but capital costs should be considered. A system similar to the now defunct Education Infrastructure Fund is needed to support teaching and learning with matching grants from partners.

- The Accord is an opportunity to streamline funding for the sector. One funding system for all post-secondary learning based on needs would allow the sector to work collaboratively rather than act as competitors. This could extend from a review of full coursework degree course costs and student contributions to fee help/fee waivers for learners enrolling in short courses and vocation training aligned with national priorities. A current example is the South Australian State Government's fee waivers for 2023 enrolment in selected vocational courses aligned with skills shortages. One funding system for the sector as a whole would also enable a framework of governance, structure and regulation that could cover the whole sector with different streams of funding for different outputs. In the long term, a single funding system would also allow there to be sector-wide funded grants.

- Additionally, there is an opportunity to review tax settings and employer contributions when it comes to further education and upskilling.

- In Germany for example, the German Research Allowance Act (Forschungszulagengesetz) is a federal R&D subsidy, which offers a tax-free subsidy of 25% of salaries and wages for certain R&D purposes up to a limit of EUR 500,000 per annum. For a jurisdiction that traditionally does not offer tax incentives for research, this raised limit from $250,000 due to the COVID-19 pandemic highlights the current importance of these kinds of initiatives for industry.

- The Medical Research Future Fund (MRFF) has provided additional funding to the health and medicine disciplines by offering long-term investment for research, albeit without associated uplift in block grant funding. Similar future funds for other research areas, but with appropriate provision of indirect costs, would also be beneficial to support ongoing innovative research in other sectors of national priority.

- In the US, endowments provide universities and colleges with stability, flexibility and a degree of confidence for the future. They are used to fund the costs of teaching, research, scholarships and infrastructure, but are predominately spent on student support (65% in 2020) such as financial

aid and academic programs as well as faculty positions (11%).

- Determining the appetite for and sustainability of promoting an endowment system, including industry and philanthropic funding, in Australia would offer potential alternatives to remove overreliance on existing and fluctuating sources, while providing an opportunity to further build on the support offered to students through HECS and to enable transformative gifts to have lasting impact.

Job Ready Graduates Package

- The Job Ready Graduates Package (JRG) has created barriers to education, disproportionally disadvantaged low socioeconomic status (SES) students and has been onerous to universities in terms of compliance and reporting. In addition, it has failed to achieve its purpose of directing student choice into critical areas where there are prevalent and ongoing skills gaps and workforce shortages.

- The 50% pass-rate eligibility requirement for CSP places should be removed and replaced by existing robust institutional progression management practices including current students-at-risk processes. This rule is impacting low SES students disproportionately across the sector and proving onerous for universities to manage.

- The requirement has encouraged internal degree transfer (program hopping) which in turn has created more work for universities.

- Existing monitoring of at-risk students, without the threat of CSP withdrawal, should be restored.

- The Accord is an opportunity to review how policy is created and to reflect on the lessons learned from the JRG reforms.

Governance

- The Accord provides Government and Higher Education institutions with a key opportunity to reset their relationship, based on mutual trust and respect.

- Changes such as the JRG package have imposed significant additional regulatory burden on universities. Reporting and compliance checks have increased and at times overlap while overall funding has decreased. This is not a sustainable way forward for the sector.

- A single, uniform approach to governance and reporting that is cohesive and efficient should be instated to enable Higher Education providers to do what they do best, rather than waste time on onerous compliance requirements, duplicated reporting and unnecessary red tape.

- There needs to be one reporting system that all government departments could have access to and that would provide consistency for Government and therefore ease compliance, reporting and monitoring burdens for both Government and the Higher Education sector. Any requirements for reporting would go through one stream to avoid overlap of department and university function

and prevent duplication of reporting.

- A sustainable public policy platform should be adopted which sets out the purpose of Higher Education in Australia and which sets out principles to encourage greater consultation with the sector. Recent decisions (such as the return to face-to-face teaching for international students and 'restoration' of pre-COVID 19 teaching delivery modes and products) have been made without a clear public policy rationale, and with little or no consultation universities have been left with no rationale for decisions made or deadlines provided and with little time to prepare for major changes.

- The Accord should be positioning to depoliticise the Higher Education system and enable long term planning and funding models that do not radically change with a change of government. This could take the form of an independent body such as the Israeli Council for Education, UK Research and Innovation, a framework, or something else entirely but the outcome should be the same – depoliticisation and long-term funding and policy certainty for the sector.

- An independent body should oversee the work of the Accord with an aim to promote genuine collaboration across the sector and with key stakeholders. There is also a need for national benchmarking, especially around Higher Education teaching quality and excellence. For example, AdvanceHE is a professional membership body based in the United Kingdom that promotes excellence in Higher Education, advocates evidence-based teaching and awards professional recognition to university teachers. There is a similar body in New Zealand but no comparable organisation currently operates in Australia.

- More broadly, there is a pressing need for Government to engage formally with professional accrediting bodies – perhaps through a national review – to ensure that the professional standards and requirements (e.g. modes of assessment, teacher-learner ratios) that they impose on Higher Education providers through accreditation processes are contemporary and align with current and emerging skills and needs.

- TEQSA should also move towards a peer-based review process for Higher Education providers which would have the potential to increase expertise and the socialisation of best practice. An appeal and review processes should also be introduced for reaccreditation.

- There is also a need for government to engage both across government departments and with universities to ensure the timely provision of data and information to assist universities to evaluate and improve practices.

Attachment 2 – International Education

PRINCIPLE BASED CHANGE

- Build resilience and agility into the sector to safeguard from potential future major system shocks.
- Realign the strategic focus with diplomacy and diversity.

- The current model of international education has been under pressure and is likely to sustain further shocks over the next two decades. New modes of delivery, the role of international education and how we educate global citizens in a digital world are all concepts worth exploring in our efforts to future-proof the system.

- There is a misalignment between the ideal role that international education should play and the commercial drivers that influence current practice. In principle, international education is an effective form of soft diplomacy for the nation and a way to enrich the student experience for all students. It also has the ability to address and improve education standards in developing countries. At the heart of the Australian Strategy for International Education 2021-2030 are four priority areas:
    - Diversification,
    - Alignment with Australia's workforce and skills needs,
    - Students at the centre, and
    - Growth and global competitiveness.

- However, current target markets often align more with the financial priorities of a sector that relies on international student fees to subsidise funding for teaching and research. In truth, a revenue focus leads to a lack in diversity of students. Adequate funding for teaching, research and facilities would enable the sector to focus back on strategic priorities as well as the government's priorities including in the Pacific, which in turn could contribute to regional stability. An expansion of Australian Scholarships and extension of programs like the Colombo Plan increase diversification of the international student cohort and put diplomacy back at the centre of international education.

- The benefits of international education should be shared broadly across the system and across the country, in cities, the regions and the most remote areas of Australia. There are many lessons to learn across disciplines from our international counterparts. To effectively benefit from this cross-pollination of ideas we need to properly integrate international and domestic students. There is a level of pastoral care and community missing from many institutions especially as they expand. Emphasis should be placed on creating an inclusive campus community to which all students belong.

- Additionally, the Education Services for Overseas Students (ESOS) Framework is currently too restrictive. It was established when international education was a campus experience and does not reflect how students now study. Moreover, the reason students choose to study at an

international institution in the future may have more to do with reputation, rankings and the ability to receive a first-class education than an international experience and the ESOS framework gives little flexibility for this direction. Furthermore, a review of current post-study work arrangements is required to ensure that Australia remains competitive for attracting and retaining talented graduates.

- The Higher Education sector must also prepare for international online competitors. As technological advances expand the market reach for Australian institutions, so too does the competition for domestic students.
- There is an opportunity to better connect education and research activities with trade and foreign relations priorities. Greater dialogue between the sector and government agencies could see Higher Education support engagement in countries and regions where Australia wants to grow its influence over the next 20-30 years, but there is a need to prioritise to elevate visibility and ensure scale.

Attachment 3 – The Future of Research

PRINCIPLE BASED CHANGE

- Drive and support Australia's research capabilities by aligning national priorities through a national research strategy.
- Reconsider the enablers of research training to provide greater support for a diversity of higher-degree students.
- Improve government support for research collaboration with industry to leverage Australia's research expertise and enhance economic prosperity.

- A world-class research environment requires flexibility to pivot and respond to current events and challenges while maintaining support for research that may span more than one political cycle.

- There is no doubt that, as a nation and a region, we face increasingly complex social, technological and environmental challenges. Addressing these challenges requires high-quality research, first to foster deep understanding, and second to create ways to apply that knowledge to effect change, improvement, and opportunity.

- Universities working in a mutually beneficial partnership with government, business and the community are well placed to contribute to this essential process. While aspects of the current research environment work to this end, there are several key opportunities to improve aligning research priorities, collaboration in the various stages of research, funding sustainability, and quality workforce retainment and attraction through the Accord process.

Current and future research priorities

- The University and South Australia are well-equipped to contribute significantly to areas of National Priority and Sovereign Capability. In particular, the University of Adelaide has strategically developed expert research capability in defence, cybersecurity, space science, agri-tech, health equity, biomedicine, and advanced manufacturing over many years to contribute value through the provision of skilled workforces and significant research development in collaboration with industry and government.

- To build scale and focus in research, the University has published four Research Strategies that align with sectors of significant and potential growth over the next 5 years:
    - Digi+ leveraging energy, digital and defence capabilities;
    - AgriFood and Wine;
    - Sustainability, and
    - Building healthy societies.
- This will be complimented by nation-leading precinct development and collaboration, for example at Lot Fourteen and Adelaide's biomedical precinct, as well as through establishing cornerstone collaborations such as the Defence Trailblazer and Cooperative Research Centres associated

with energy and resources.

- Currently, basic fundamental research generates new knowledge that might also provide a foundation for research engagement, learning to impact through translation and adoption. While there is an important and very relevant national imperative for research translation and commercialisation particularly in the areas mentioned, it is important to ensure this builds on a solid foundation of research excellence.

- Recognising the need to develop research capacity and capability in key sovereign areas, the strength of the Australian research sector has always stemmed from the bottom-up generation of ideas. This must be maintained. Australia's future research eminence lies in better leveraging ideas into economic opportunities, international competitiveness, and social impact outcomes.

Future of research requires stronger collaboration

- Addressing Australia's priorities through our existing research strengths is impossible without improving collaboration between key stakeholder groups contributing to Australia's research sector.

- Acknowledging the different roles of industry and the research sector in our innovation system is essential. As highlighted by the Universities Accord Discussion Paper in illustrating where funding is sourced across types of research, universities and industry engage in the innovation system at different stages of research and development (R&D).

- Further, research organisations have a broad range of responsibilities focused on public good outcomes, such as improved healthcare and environmental management, which are at least as important as the commercial outcomes from research, even if they do not present initial commercial viability.

- Promoting collaboration among industry and research partners despite the varying roles they play is key to successfully improving research translation.

- To enhance the impact of collaboration, a two-pronged approach is necessary: support for existing collaborations to grow; and enhancing the scale of collaborations between Higher Education institutions and businesses that do not yet collaborate but have a desire to innovate and achieve long-term growth.

- Given the commercialisation of new technologies can be a long and complicated process, and more so in the sectors that need them the most, there is an inherent difficulty in fostering truly collaborative engagement between industry and research.

- It is well documented that the timeframe from bench to market – that is from the initial breakthrough in a research laboratory to a new product or service being delivered in market – can take several years. Further, collaboration takes time to develop and requires opportunities for learning and developing readiness.

- Government, through both the Departments of Education (via the ARC) and Industry, can play an important role in linking industry and research, bridging gaps between funding horizons and R&D outlooks beyond low and high technology readiness level (TRL) and the limitations of political cycles.

The future of research funding

- The proportion of GDP invested in research in Australia is low compared to other OECD countries. The pressure placed on universities is compounded by the fact that universities in Australia undertake a larger percentage of research, particularly basic research, than their OECD counterparts. Further, indirect costs of research are largely met by universities, and the current level and lagged nature of funding provided through the Research Block Grant allocation is insufficient to support and drive innovative research at scale.

- The University of Adelaide sees the ARC playing an important role as a two-way broker between government, universities and other research providers to advocate for higher levels of research funding to drive research excellence.

- In addition, the ARC can be well-placed in its broker role to shape how muti-disciplinary and cross-sectorial research is funded in Australia, including through developing mechanisms for transnational collaborative funding with priority international partners. There are subsequent and substantial benefits for creating industry connections through this means also.

- As mentioned, research activities undertaken by universities are not fully funded. The gap in funding from government sources is most often met by allocating university funds from student fees.

- With the implementation of the JRG, support for research is effectively no longer built into funding arrangements. This combined with the ongoing challenges to the international student market highlighted earlier is diminishing the ability for universities to continue subsidising research from these sources, which itself is not a sustainable model for ongoing, impactful research in critical industry sectors.

- The current funding model requires universities to grow domestic and international student cohorts to a significant size and comprehensive discipline profile to reach a substantial research scale. Research intensity is often correlated to a university's ability to attract a large international student cohort.

- As a result, it is becoming increasingly difficult for universities to fund the gap between grants that budget researcher salaries below the true cost of research.

- Successful research translation requires a sound understanding of the goals and expected outcomes, the funding and investment strategies, requirements and returns, as well as clear accountability for delivery.

- Critically, the first stage of translation – securing funding from TRL 3 to 6 – is an area where Australian researchers have experienced considerable difficulty, especially in comparison to the US, EU, Chinese and UK funding environments. It is important for research translation initiatives to be backed by seed funding opportunities and importantly enabled through underlying core infrastructure, services and facilities.

- This will encourage the establishment of a translation ecosystem that engages both research providers and translation partners, and will conduce stronger collaboration between industry and academia, ultimately facilitating a stronger understanding of drivers that influence the priorities of each for the benefits of both.

Building a sustainable research talent pipeline

- Key to delivering successful and innovative research outcomes is to attract and foster great research teams, led by inspiring researchers, working in areas of significant value and stimulation. Building a high-performing and diverse research workforce is critically important for sustaining a high-performing R&D system, particularly amid skills shortages that span the country and sectors of national priority.

- Firstly, there is a growing importance to deliver fundamental incentives to retain a research workforce within the Higher Education sector.

- Undertaking postgraduate studies is a prerequisite for advancing a research career. Attaining this level of qualification is also increasingly required to perform the types of jobs industries need to fill now and in the near future. However, candidates are currently expected to forego benefits growingly accessible in other sectors while their earning capacity is limited. This is proving to be a significant issue for employees amid the current pressures of cost of living and post-pandemic inflation.

- While PhD candidates are eligible for a stipend from their university as part of the government Research Training Program (RTP), stipends are significantly lower than the minimum wage. This is a powerful deterrent for individuals looking to develop a career in research, negatively impacting the research workforce pipeline.

- Early career researchers are further hindered by the lack of support such as paid parental leave and childcare rebates while undertaking postgraduate studies that equate to full-time employment. It is particularly a barrier for attracting talent to positions within Research Centres of Excellence due to existing visa restrictions. This is of particular importance to ensuring equity in access to, and uptake of, postgraduate studies for women and low SES status families, as there is a concerted and coordinated effort from government and the Higher Education sector to promote women in STEM.

- With the Paid Parental Leave Amendment (Improvement for Families and Gender Equality) Bill 2022 recently passed through Parliament and ascended rejecting amendments for the provision of paid parental leave for postgraduates, there remains a financial barrier to the uptake of postgraduate research for demographics specifically targeted to increase access (see

Attachment 6), in particular women and people of low SES.

- Addressing this barrier to securing a future research workforce pipeline in an equitable manner should be considered through the Accord process, though in doing so take into account Higher Education providers' ongoing ability to fund the required amount of positions overall.

- Beyond the implementation of long-term collaborative funding opportunities noted above, researchers need to be provided the opportunity to advance their career and research beyond the timeframes of funding schemes for which they are eligible.

- Current fellowship schemes do not provide a long-term pipeline to nurture research talent. For example, if a researcher is awarded a Future Fellowship early in their career, there are no further ARC funded schemes other than Laureate Fellowships that support research-only activity. As a result, researchers need to secure on-going employment in organisations that will require them to allocate time to other activities such as teaching.

- To properly support a sustainable researcher talent pipeline, there may be value for the ARC to consider allowing individual researchers to hold more than one Future Fellowship at different levels. The top researchers in Australia should be enabled to identify a pathway for continued research in the national interest while they remain productive and at the cutting edge of research.

- Building a sustainable research talent pipeline will also require cohesion between industry and academia in relation to workforce retention and movement. As outlined in Attachment 6, developing a culture of lifelong learning, particularly through learning integrated into a work setting, there is an opportunity to overcome current competition for employees where there are strong incentives to leave academia for industry. Instead, increased mobility between the sectors could build resilience, connection and alignment through a more agile research workforce.

Attachment 4 – Collaboration between Government, Industry and Higher Education

PRINCIPLE BASED CHANGE

- Foster open collaboration between industry and Higher Education to align sectors to national priorities.
- Enable big collaborations and support co-location of industry and Higher Education to address Australia's key challenges through long-term, secure funding.

- The role of collaborative partnerships between government, industry and universities are essential to the future of the sector and an example of how skill shortages are already being addressed across the country.

- Intentionally planned physical locations are important to create collaborative environments with industry for staff, students and researchers to enhance skills acquisition and work readiness. For example, the University of Adelaide's presence at Adelaide's biomedical precinct and the state's innovation district, Lot Fourteen, are prime examples of the benefits of industry/research co-location in dedicated innovation spaces.

- Placements, work integrated learning (WIL) and internships are also valuable avenues for ongoing collaboration but more can be done. The financial burdens of WIL and placements can be a barrier to individuals. The opportunities for low-SES students to undertake workplace-based WIL in their discipline area may be severely constrained by their need to undertake paid work. Industry could offer financial incentives, similar to jury duty, where the participant is paid for their time.

- There are disincentives for international students in that WIL in some cases counts towards the hours they are allowed to work in a fortnight, which are generally capped due to visa requirements. This should not be the case and an exclusion should be carved out for these specific cases.

- There are issues with the number of places offered, especially in the health sector where the number of places is capped. In regional areas, students add real value and fill skill gaps however there are very little incentives offered and a lack of regional accommodation and funding assistance. This needs to be viewed in a holistic way as placements can't be increased in the regions without the accommodation and support structure in place to support the students in those placements. This may also help industry understand the value of these programs and contribute to financial incentives to continue and increase participation.

- The ability to effectively track the success of placements and other forms of WIL would also assist with reporting for Higher Education providers both internally and to government and industry. Currently the information is piecemeal, and collaborations would benefit from a national dataset that could show the impact of these programs and measure success and longitudinal data to help identify trends.

- Delving deeper into a few industry collaborations at the University of Adelaide provides several good examples of industry integration. For example, the University's Industry Advisory Boards (IABs) are designed to develop major research collaborations with key industries, listen to industry needs, and provide educational offerings suited to the future workforce in the areas of Energy, Mining and Resources; Health and Medical Industries; Agrifood and Wine; Defence, Cyber and Space and Creativity and Culture. These areas are not only areas of strength for the University but also areas of priority for the State, so the boards are well-positioned to collaborate with government in terms of policy development and direction.

- The University of Adelaide partnered with Silanna in 2017 to embed its research facility into the Engineering Faculty. This led to the commissioning of the world's first triple-axis chamber for quantum material research. This close integration has generated a sovereign capability in Quantum materials that is leading developments internationally.

- The Energy, Mining and Resources School Outreach Program is another example, designed to advocate a diverse range of careers in the energy, mining and resources industry to high school students. The Program is such an important collaborative partnership that it is co-funded by the South Australian government and industry partners.

- The Academy by Deloitte is yet another example of industry and university collaboration. The program is designed to teach valuable capabilities such as business acumen, self-leadership, advisory, technology and social skills and includes paid internships and project experiences with Deloitte. The Academy can be chosen as an elective stream for students studying a variety of different undergraduate degrees. On completion students receive a postgraduate Professional Certificate in Advisory Services, in addition to their bachelor's degree. It is an interesting model that gives industry an active role in contributing to, and informing, courses and experiences to address skills gaps and produce graduates who are productive in the workforce from day one.

- Another similar model is sector-led, industry specific, co-designed and co-delivered electives and micro-credentials; as well as industry designed and presented lectures in specific areas of specialisation. Universities can remain agile to industries' changing demands through these partnerships and joint ventures.

- University staff could also benefit from shared academic and industry appointments or a secondment program with industry which current contracts do not allow. Likewise, incentives are needed to allow more industry experts to contribute to Higher Education teaching and research. More flexibility in employment contracts to allow the retention of positions and entitlements could promote a more effective flow of staff between organisations in a two-way exchange that would not only upskill and further develop individuals but also bring greater understanding and appreciation between sectors while enabling industry and universities to respond faster and more flexibly to current and emerging workforce, skills and industry research needs.

Attachment 5 – Addressing Skills Shortages and Supporting the Workforce Pipeline

PRINCIPLE BASED CHANGE

- Skill shortages and workforce pipelines can be addressed by the Higher Education sector through training, upskilling and reskilling.
- Universities can use their individual specialisations and research and teaching excellence to address skills shortages in specific fields in areas of priority in their jurisdictions and beyond.

- Universities are the nexus between research, teaching, the future workforce, industry and government. The sector has the unique ability to drive new industries through innovation as well as provide training for the future workforce.
- The way we work is changing, and the Higher Education sector is in a prime position to upskill and reskill the future workforce. In the next five years more than nine out of ten new jobs will require post-school qualifications, and fifty per cent of new jobs are expected to require a bachelor's degree or higher.
- In addition to this, universities can increase productivity through investment in R&D, and conduct detailed research in areas of government priority, while also understanding workforce needs.
- Universities can educate, train, upskill and reskill people from all demographics, in all sectors, at different stages along the lifelong learning journey.
- Reskilling workforces on a regular basis to respond to nation-wide challenges and needs requires the ability to recognise immediate needs and future skills gaps. To achieve this, a whole-of-country approach in collaboration with industry and a national strategy is needed.
- For example, Singapore established SkillsFuture Singapore (SSG) – a program that identified priority skills in growth areas such as the Digital, Green and Care economies and offers vouchers and cash bonuses to encourage employers to invest in enterprise training and developing capabilities of their employees, as well as provide industry-relevant training and facilitate job matching.
- In Germany, school leavers have the option of taking up a vocational apprenticeship instead of choosing full-time academic education. Known as 'dual studies' or referred to as the 'dual education/apprenticeship system', it is a highly regulated and well-regarded system whereby young people learn through a mix of 'on-the-job' training as well as in the classroom. Typically, learners will spend 70% of time in the workplace and 30% at college. Most apprenticeships take around three years and almost always lead to secure employment.
- In Australia, there are also dual-sector universities which include both vocational (skills-based) and higher (academic-based) education in the same institution.

- Specific universities can also leverage strengths to provide a workforce pipeline for areas of skills shortage.

Addressing Skills & the Workforce Pipeline for the Energy Transition

- To achieve Australia's sustainability goals, the country and state requires more graduates to work in the mining and resources sectors and more entrepreneurs starting in industries along the value chain. Universities currently do not have enough students entering STEM degrees to meet the demands of a rapidly changing industry. To address these concerns, a focus on the 'energy jobs of the future' needs to be prioritised to secure a pipeline of future students and STEM-trained deep-tech entrepreneurs for these sectors, as well as future sectors such as green hydrogen. It will be difficult to successfully transition our energy system if there are not enough students going into current programs to meet demand.

- Last year, the South Australian Government announced the Hydrogen Jobs Plan, but for the hydrogen sector to grow and succeed there needs to be training of this workforce with specialised electives including those that help build specific STEM, as well as legal and regulatory knowledge. If we are to realise the opportunities and full potential of hydrogen in South Australia and Australia, there needs to be a coordinated approach to enable a skilled workforce mobilisation strategy. From a recent 2023 study, the University of Adelaide is the most hydrogen intensive research university in Australia. Training a successful future workforce of entrepreneurs for green hydrogen or any other component of a successful energy transition requires coupling to strong research.

- The University of Adelaide is leading the way in research around meeting the increased demand of metals and other resources while minimising impact on our environment. It is also focussed on Sustainability Education for All: that every graduate of the University of Adelaide will be sustainability literate and able to influence sustainable change in their chosen professions. The University has a specific strategy focused on sustainability – including the energy nexus and the first Pro Vice-Chancellor (Energy Futures) to emphasise the importance of the sector.

Addressing Skills & the Workforce Pipeline for AUKUS defence jobs

- The AUKUS trilateral security pact will mean nuclear-powered submarines will be built at the Osborne Naval Shipyard in South Australia. A sovereign nuclear-powered submarine capability in the state will need engineers and scientists from a range of disciplines. The University of Adelaide is ready to help train the AUKUS workforce and provide research expertise that will be required to help Australia achieve its goal of a nuclear-powered defence force. The University has a strong track record of working collaboratively to co-create programs that address the skills needed by the future workforce. For example, the Master's in Marine Engineering course, which includes a focus on submarine design and operation, was co-created with industry. This course will be updated with a new focus on nuclear propulsion to address the specific needs of a nuclear submarine capability. The University also teaches a postgraduate course in Radiation Management which will be adapted to the requirements of the nuclear submarine enterprise.

Attachment 6 – Equity and Lifelong Learning

PRINCIPLE BASED CHANGE

- Build a seamless Higher Education system equitable for all Australians that promotes social cohesion.
- Develop a highly connected, collaborative and complementary Higher Education sector to instil a culture of lifelong learning.

- Increasing access and improving equity for all Australians is an ongoing and major priority for universities to ensure they not only become more inclusive organisations and promote access to education but so they can also deliver on workforce targets to meet industry needs.

- While there are already several measures in place to support opportunities for underrepresented or disadvantaged learners, the Accord presents an opportunity to develop a whole-of-sector initiative to accelerate and increase equity of access. This extends beyond access to Higher Education, to access to services essential to learner success, including accommodation, career advice and industry engagement opportunities, and health and wellbeing services.

- One way through which the sector could achieve higher inclusion of these groups more readily would be through the taxation of large businesses that require large numbers of graduates and upskilling of existing staff to carry out their operations effectively.

- For example, encouraging large business in constant need of skilled graduates to redirect a portion of their profits towards paid internships and degrees for identified, underrepresented, or disadvantaged learners could not only facilitate the upskilling and employability of these demographics of learners, but also increase access to talent for industry stakeholders experiencing skills shortages. An approach of this kind will ultimately decrease pressure on the government support systems by linking disadvantaged people looking to enter the workforce with paid positions that support their ongoing educational development.

- Means-tested access of this kind could be made available to equity groups, including regional, remote, and low SES individuals as a way of breaking generational disadvantage. An initiative of this kind could also be embedded into peer-mentoring programs to encourage uptake and retention/completion while providing further support to transition into the workforce.

Improving Higher Education for Indigenous Australia

- One of the key demographics which have been a strong focal point of access, retention and completion over the past decade is Aboriginal and Torres Strait Island students. Despite this recent focus, completion rates have either lowered or remained static.

- Both the State First Nations Voice to Parliament which recently passed into law in South Australia and the National Indigenous Voice to Parliament that is currently being discussed in Federal

Parliament, if formed, create an unprecedented opportunity for the Higher Education sector to better engage with and understand the needs of Aboriginal communities to deliver education and raise attainment levels.

- While the JRG package included the provision of uncapped undergraduate placements for Indigenous learners in study areas except medicine, these were specifically for Indigenous students in remote and regional areas.

- The University acknowledges Indigenous people located in remote and regional areas endure higher levels of social and economic disadvantage, and limited access to services including education. However, it also notes that a large majority of Indigenous people live in urban areas and still experience significant disadvantage compared to non-Indigenous people with whom they are competing for Commonwealth Supported Places.

- For this reason, extending funding of uncapped Higher Education places to Indigenous students regardless of their location would be a reasonable and fair provision and is an imperative to raising attainment and completion rates among Indigenous Australians.

The value of promoting lifelong learning

- Establishing a culture of lifelong learning in Australia has many benefits to learners and the workforce, as well as employers and education providers.

- For individuals, lifelong learning is a growing requirement to progress a career in most fields. Lifelong learning enables workers to maintain currency with fast-paced changes in rapidly developing and changing sectors driven predominately by the uptake of next-generation digital technologies, significant developments in governance and regulation, shifting supply-chains and other international challenges.

- A Higher Education sector that is designed to promote lifelong learning will also provide students the opportunity to enter the workforce earlier, develop skills as they develop their professional interest, and offer flexible curricula at self-paced learning that encourages career progression and agility.

- Additionally, an increase in self-paced learning opportunities should be considered to improve uptake and flexibility, aligning the demand for education with the need for work. In doing so, the limitations of self-paced learning in a fast-changing environment will of course have to be recognised and addressed.

- There are also inherent benefits for providers both of education and work. Having continual connection between industry employers and Higher Education providers through lifelong learners/workers creates a permeable boundary between these stakeholders, encouraging and supporting career paths that lead individuals in and out of universities, industry and government while building stronger organisational ties between them.

Online education delivery

- The overall shift to a more digitised education means that online delivery will continue to grow. It has the potential to drive solutions to the two key barriers of equity in the education system – access and affordability – for Australia to meet its participation and workforce targets. However, its effectiveness depends on the consideration and implementation of measures for providing equipment and internet access to populations throughout various stages of their learning and career pathway.

- Online, modular learning opportunities provided in the workplace or to the individual can offer flexible, affordable, 'just in time' knowledge to upskill the workforce while providing one way to address the short shelf-life of knowledge during rapid change as mentioned above.

A unique approach to lifelong learning

- One bold measure to promote lifelong learning, increase ease of access and foster connection between educators and employers is through the introduction of a nationally recognised credential/skills 'Passport' supported by a National Framework aligned to critical skills, which would enable a learner to effectively balance the necessity of continued employment with continual education.

- The Passport could act as a system for tracking progress, pathways and credit and be supported by a skills/employment taxonomy similar to EMSI Burning Glass Technology to show real time relationships between study, learning and employability.

- An initiative such as this would increase accessibility and effectively break down silos between Universities and Vocational Education and Training (VET) providers to create a more interlinked and complementary education sector. The pipeline of students would be two-way between universities and VET.

- It could also provide the opportunity for learners to move through competency-based, industry informed and embedded learning, which would result in lower pressure for internships and other WIL.

- Currently Open Universities Australia (OUA) is the only legislated institution able to enrol students in single subjects for which they can claim FEE- HELP. Consideration of a broader adoption/expansion of the OUA model might increase interest in concurrent work and study.

Affordability and availability of student housing

- A key aspect of achieving access and equity is ensuring learners have suitable and affordable accommodation while undertaking their studies. This is of particular importance to students from regional and remote areas in delivering Higher Education where the student comes to university and receives the entire experience rather than the university coming to the student. It is also a

key barrier to overcome for the inclusion of lower SES students and a significant driver for international student experiences of Australia as a potential future place of work.

- With housing and rental markets showing little short-term relief since hitting post-pandemic peaks, students are facing increased cost of living and rental pressures. Further, the quick return of large numbers of international students has only compounded the need for student accommodation that is affordable.

- There is an opportunity to capitalise on the adverse effects the pandemic has had on business vacancy rates in central business districts where universities are located.

- For example, a priority of the Adelaide City Council is to attract low- and middle-income earners to live in Adelaide's CBD to achieve a return to pre-pandemic vacancy. One way this is being envisioned is to transform vacant business spaces into apartments and it is possible that these apartments could serve as student accommodation.

- The Accord itself presents a greater opportunity for the Higher Education sector to identify sector-wide approaches to improving access and quality of student accommodation in coordination with government.