



# Creating a modern tertiary system for the future

Swinburne's response to the Australian Universities Accord discussion paper

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## Table of Contents

Introduction .....	1
Swinburne's approach to the Accord Discussion Paper .....	2
Smaller, specialised universities.....	3
Increasing Australia's research & innovation impact.....	5
Best practice dual sector collaboration to grow the national human capital .....	8
Driving Work Integrated Learning at scale.....	11
List of recommendations.....	17

# A modern and specialised tertiary system

## Introduction

The Australian Universities Accord is a once-in-a-generation opportunity to shape tertiary education in Australia. Swinburne University of Technology welcomes the opportunity to contribute bold ideas for consideration and suggests solutions to some of the key problems the discussion paper seeks to address.

Looking forward 10, 20 and 30 years is a challenge for the sector to coalesce around. These themes affect all institutions and include how we create a post-secondary education system that places students at the centre of strong institutions backed by public funding.

Whilst Swinburne is a young university, it has a long history of offering education in the eastern suburbs of Melbourne since the early 1900s. Nimble in our thinking, we anticipate new trends and project to the future what education is needed to prepare learners for a modern tech-rich world. In 2020, Swinburne launched a vision of being a prototype of a new and different university – one that is truly of technology, of innovation and entrepreneurship.

Our roadmap for achieving this vision is outlined in our [Horizon 2025](#) strategy. The strategy is succinct and focused on four moon shots. These moon shots set our students up for success in their studies and in the workforce and provide a pipeline for industry to build, innovate and grow with brilliant young thinkers. Our strategy asks our academics to think about technology solutions for our industry partners and to look to our digital future.

Our approach is already working to connect students with industry during their studies and beyond. We will discuss this further in Section 4 with examples of how our approach to Work Integrated Learning (WIL) is benefitting Swinburne's students.

Swinburne is one of the six Australian dual sector universities. We support student pathways to tertiary education from VCAL / VCE Vocational Major to apprenticeships, into VET and higher education, right up to the PhD. No other tertiary institution embodies the notion of scaffolding education around the learner in the same wholistic, supportive and seamless way. If we did not already exist, the future would demand we be invented!

At undergraduate level, we integrate all our students' learning activities with industry experience and guarantee a job at graduation in the students' field of study. We know that in this age, an education without real world application undermines our economy and sovereignty and encourages a slow and permanent brain drain towards other nations.

While older universities used to doing things the same way may feel challenged by the questions posed in the discussion paper, Swinburne sees the next 12 months as a year of unprecedented opportunity, renewal and change. Now is the time to redefine the future and harness considerable momentum to tackle what lies ahead. This opportunity is not just for institutions, but for students (domestic and international), industry, academics and learners of all ages and backgrounds. In short; for young people and all Australians.

## **Swinburne's approach to the Accord Discussion Paper**

The Accord Discussion paper asks 49 questions. We are confident that the sector will, collectively, be compelled to respond to all of them. Our approach will be to focus on a subset of those questions we consider most critical to our strategic plan. We recognise and indeed welcome, that other universities seek to contribute to other aspects of the Accord. This is -or should be- the characteristic of a differentiated system where individual institutions are impacted differently by various policies or parameters.

In this paper, Swinburne articulates our response around four themes, each addressing a number of questions. In each section, we weave through the idea that for the sector to be stronger, future-focused, resilient and responsive to global ructions, we must find ways to breakdown the competition that not only divides us but saps time and resources that should be allocated to the bigger picture. Each of our ideas trace this conviction – whether it is through smaller and specialised universities, universities grouped by research focus, leveraging the expertise and specialties of dual-sector institutions or work-integrated learning at scale.

### *Smaller, diverse and specialised universities*

The Accord should consider the size and scale of our universities – rethinking the imperative of an ever-increasing size to achieve financial sustainability. Bigger should not necessarily be better. Smaller, specialised universities could provide students, academics and industry partners with the depth of knowledge needed to power both R&D and the development of workforces for some sectors but not all others, provided this became compatible with a financially sustainable model.

### *Increasing Australia's Research & Innovation impact*

Researchers need a more permeable work environment to build true innovation capability. Universities are now the primary space for researchers to work, but we are missing out on harnessing global talent and ambition by not creating pathways for academics to navigate seamlessly between academia and practical industry placements. Beyond reiterating the need for fully funded research as a national good, we are proposing the Accord explores Third Stream Funding, which could incentivise industry to undertake more R&D onshore so that Australia can build our intellectual sovereignty and advance its academic workforce.

### *Best practice dual sector collaboration to grow the national human capital*

Gaps between VET and Higher Education – in RPL, loan schemes, student mobility in both directions – currently do a disservice to Australians seeking new skills and opportunities. Overcoming these challenges to build a more cohesive, truly learner centric and fit for purpose tertiary sector will ensure that national priorities are met, eliminating the inefficiencies of a deeply confusing and paralysing regulatory environment.

### *Driving Work Integrated Learning at scale*

Following the jobs and skills summit, the Accord should seek to recognise the intrinsic value of Work Integrated Learning (WIL). A national approach is required to overcome the current obstacles to the broader implementation of WIL; including a fraught industrial relation status for interns, reluctance by employers to take on learners into placements and reluctance by students to engage in work while also paying fees.

## **Smaller, specialised universities**

*This section addresses questions 1, 2, 7, 17, 23 and 45.*

In 2021, Swinburne launched a bold new strategic plan: *Horizon 2025*, laying the blueprint for Swinburne to be a prototype of a new and different university – one that is truly of technology, working hand in glove with industry and offering all students a work experience to cement their learning.

Big bold leaps are necessary to achieve big dreams and a global ambition. Swinburne aims to differentiate itself to students, academics and industry partners to establish its own place in an ever-competitive landscape.

Swinburne's history has evolved over 100 years as an education institute to become a university 31 years ago. Since then, as a technology university, we have always focused on the things we do well – STEM – while aligning our social sciences and business offerings to the examination and management of the impact of technology on society, organisations and people. With the determination to be global leaders in our chosen fields of excellence, we have resisted the sectorial temptation of trying to excel in all things, fuelling ever increasing financial needs and demanding unfettered growth in student numbers.

We believe that a new model is needed for universities that can assist Australia in achieving its full potential over the next 10 to 20 years. To meet the future needs of our nation, our economy and workforce, the tertiary education sector requires new thinking and a funding model to match.

As a small country with a modest population, Australia must avoid duplication, fragmentation and dilution, be it in education or research. Instead, our tertiary system should seek to reduce counterproductive competition and offer a more diverse higher education that caters for our domestic needs and students, but also assist in developing global capability in areas of strategic importance.

Whether it is competing for students, talented academics, research grants or political interest, Minister Clare stated a simple and undisputable fact at the Universities Australia Conference dinner on 22 February 2023 when he said:

*"You compete against each other. Every time I meet with a Vice Chancellor, or a group of Vice Chancellors, that's abundantly clear."*

Moreover, there are few incentives for researchers to use existing equipment or infrastructure available elsewhere (or even in their own institution).

To specialise a university's offerings exposes it to severe and perverse financial outcomes. At the time when Swinburne became a focused STEM institution, not out of a whim but with the clear objective to remedy the dire shortage of STEM-capable domestic graduates that threaten the future of this nation as a knowledge economy, the *Job Ready Graduates* (JRG) package directly undermined our endeavour.

The JRG policy intended to increase student uptake (and graduation) of STEM courses by shrinking the student contribution to their studies. However, the Commonwealth contribution to universities for those same capital-intensive courses was, inexplicably, concurrently decreased. As a direct consequence, universities now receive \$4,758 less for enrolling Science and Engineering students (a 16.4% reduction) and \$3,513 less for maths students (a 17% reduction). The package resulted in a total misalignment

between fee incentives for STEM students and support for the universities enrolling them. Indeed, the policy provided a perverse incentive to large universities to grow intakes in all cluster 1 disciplines, beyond their allocated cap, secure in the knowledge that these inexpensive courses would deliver handsome margins based on the student contribution alone. As a result, courses with expected significant future employment growth, including nursing, teaching and engineering, now receive less total funding per student while intakes in non-STEM disciplines have grown, especially at large universities where the marginal cost of adding more students in cluster 1 unit generates record margins, regardless of any capping restrictions.

JRG not only punished universities specialising in STEM, like Swinburne University of Technology, but it also made no impact on student enrolment trends whatsoever. Fixing JRG is critical and urgent, not least because it was never going to work as students choose areas of studies based on interest and career aspirations, rather than because of any price signal, blunted by income contingent student loans.

**Swinburne makes the following recommendations for creating a diverse and nation building university system:**

- Encourage university specialisation (tech stream, research-focused university, liberal arts colleges etc) and ensure that equipment, teaching hours, student contribution etc are assessed agnostically, empirically, fairly and equally.
- Avoid the proliferation of research centres and equipment aimed at similar or cognate research by establishing shared, national interest infrastructure, in strategically distributed locations, around which researchers and research students should gravitate rather than attempt to replicate in their own location. This certainty of funding would also alleviate the brain drain by providing secure career pathways for academics at all levels of experience, creating space for long-term, revolutionary research and its application (more on this in section 2).
- A distinct funding for research that specifically precludes its cross-subsidisation by teaching activities to avoid the built-in imperative of student growth and encourage investment of student fees in learning innovation and student learning outcomes.
- A single level of student contribution for all discipline clusters, coupled with cluster-specific commonwealth funding that reflects the true cost of teaching these disciplines.
- Incentivise industry to co-invest in the development of the human capital they require. For example, employers could be encouraged to pay graduates HELP debt by making this tax deductible without incurring any fringe benefit tax (the foregone FBT revenue will be offset by the faster and more assured settlement of student debt).
- To mitigate any adverse impact on the overall funding envelope, measures aimed at improving the overall equity and fairness of the system could be introduced, such as:
  - Increasing the threshold for loan repayment (say to \$80K), reintroducing the “Voluntary Bonus Repayment” to encourage early repayment, cap the total level of debt per student, or introduce interest on loan balance post-graduation.
  - Introduce means testing for all domestic students to enable more generous funding for low SES or equity groups.

## **Increasing Australia's Research & Innovation impact**

*This section addresses questions 24, 25, 26 and 41.*

Swinburne believes that excellence in research-led innovation that is converted to solutions through application and commercialisation will enable Australia to secure a prosperous future. Breakthroughs in medicine, manufacturing, IT systems, science and the way we think through complex issues propel society forward – it makes us modern.

For Australian research to drive economic benefits on a scale commensurate with international benchmarks, we need to fully fund research in areas of strategic priorities, linked with commercialisation resources (e.g. NRF) to develop research-led innovations for national benefit. Key gaps in research and innovation are: fully funded discovery research, fully funded strategic research (more information below), funding commercial development resources inside universities and creating pathways for people to develop entrepreneurial track records, facilities to scale-up and manufacture.

Swinburne's approach to research links to our first recommendation, *focused and specialised universities*. As a distinctly tech university, Swinburne has created a streamlined research ecosystem that supports three key areas of research to create an innovative society through:

1. Med Tech and Health Innovation – from psychology to assistive living technology aids
2. Space and Aerospace – from astronomy to composite materials to satellite payloads
3. Innovative Planet (Greener, more sustainable) – from smart materials to energy transition.

These three areas are underpinned by capabilities in advanced manufacturing and design, data and digital design and commercialisation. By having a focused ecosystem, we can determine what we prioritise and how we can contribute better to industry and national interest. Extrapolating this approach at a national scale, Swinburne suggests that the Accord could test formalising strategic research capabilities for each university aligned with national needs – building critical mass within and across multiple institutions with an agreed focus. Focused funding should be targeted to support the people, places and programs that can bring the research to market and do so sustainably.

### **Fully fund research and reform grants application process and criteria**

There is a misalignment in the strategic imperative to support fundamental and applied research at universities, coupled with a funding model that relies on cross-subsidisation through fees to fund this research. For example:

- Research grants and industry schemes (e.g. CRC, AEA) do not cover the salaries of the researchers time or staff working on preparing, administrating and managing the grant application. This affects research skills retention and adds barriers for research organisations to provide quality research & innovation support services which would allow researchers to focus their time on ideas that address the nation's needs.
- Low success rates mean that much of this effort is expended in vain. Stage-gating of grant applications may assist in raising efficiency and efficacy of awarded funding. Some schemes (e.g. ARC Centres of Excellence) already have this – and it should be expanded.
- The current university- and industry dollar-matching requirements in certain funding schemes (e.g. CRCs) encourages incremental solutions and creates IP complexities. Although there is merit

in participants having “skin in the game”, universities already support the research salaries and research infrastructure (labs and lab equipment, equipment maintenance contracts etc).

Fully funding research will raise the appeal and prestige of our national research, thereby promoting global talent attraction and reversing Australia’s brain drain.

### **Implement “National Reconstruction Research priorities” via long term strategic research support**

In line with Swinburne’s advocacy for specialised universities, we believe the Federal Government has a role to play in setting national research priorities. The National Reconstruction Fund (NRF) has started this process, listing investment priorities for government for a future return. Similar priorities should be set for universities and industry, matching expertise and colocation opportunities with strategic funding.

As mentioned earlier, undue competition between institutions frustrates both research and innovation. Our current research system relies entirely on researchers putting in grant proposals, in competition with others. Some proposals are funded and teams may gradually build critical mass in certain areas. Although this organic system creates great research, there is limited strategic alignment with Australia’s needs. Even our major ARC Centres of Excellence and CRCs with industry are established on “ground-up” coalitions of researchers and industries choosing a topic to investigate. There is no mechanism for retaining the capability once the direct funding support runs out.

In a diverse system, there is a place for this approach and the ideas it generates. However, Australia also needs a “top down” method for allocating strategic research priority funding, where priority areas are identified as driving national prosperity in the next decade (e.g., quantum technology, manufacturing expertise, space and defence capabilities, biotechnology, cyber and AI). These priorities should be driven via direct financial support for the formation of a national network of complementary (rather than competing) expertise with specific national goals reflecting national needs. Strategic research priority funding should be long term (e.g. a decade) and cover researcher salaries, PhD stipends and key research infrastructure. Some investments of this kind have occurred in Cyber and Quantum, but these fields advance so quickly that further strategic investment is required. Pragmatically, trialling this approach by adding 2-3 Centre of Excellence topics and 2-3 CRC topics aligned with national needs to the current schemes and fully funding the activities in these specific areas would deliver a proof of concept and improve national focus and innovation outcomes.

### **Dedicated commercial innovation funding**

Although research excellence forms the basis of an innovation economy, generating impact from research requires a range of different skills; from managing IP, to identifying markets, brokering commercial relationships, project management, design, engineering and software development, productisation, entrepreneurship and commercialisation. At Swinburne, innovation is embedded in our research impact journey. We invest in the ecosystem and skills required to bring innovation to the market. -Almost all universities carry these costs as an overhead and are therefore constrained in the level of support they can provide to researchers and in the scale at which commercialisation can take place.

Funding commercial innovation staff is a high-risk endeavour – although there are examples of great success, these often take a long time to realise, testing the patience and commitment of university leaders. Swinburne already invests in industry co-location, commercial specialists, translational research infrastructure and technology development (e.g. proof of concept funds), commercial skills programs, industry partnership facilitators and programs to connect entrepreneurs to researchers and students. We do, however, invite large-scale investment to grow the impact of these innovation interventions exponentially.



### **Building innovation bridges between universities and industries**

Most Australia's researchers are based in universities, in contrast to other developed countries where researchers move easily between industry R&D and university R&D.

Universities often cannot offer security for key expertise as most research grants are short term contracts of three years duration or less. Researchers seek opportunity rather than security, but this means they move on quickly and universities lose the ability to harness talent and build consistent growth of capability. Swinburne believes that individual jobs do not necessarily have to be secure, provided an established industry ecosystem allows researchers to move between sectors, yet remain within the strategic priority area.

What is required is a cultural and systemic shift. We need to increase the engagement and impact, as well as diversify the options, for young researchers at their most innovative stage and for senior researchers in industry and universities at their most productive stage. We must eliminate any disadvantage in moving seamlessly between teaching, research and innovation. But to realise this, we need industry to be part of the solution. Portable employment benefits (such as leave or superannuation entitlements) may offer an opportunity to facilitate the permeability between universities and industry.

### **Stimulating industry and incentivising research and development**

Swinburne supports the Universities Australia recommendation that calls for an end to high levels of indirect investment in R&D – such as through the R&D Tax Incentive – to be replaced by direct funding of industry R&D. Alternatively, the R&D tax incentive scheme ought to be simplified to reduce the regulatory burden it currently creates.

Encouraging industry R&D organisations to return to Australia and co-locate with university campuses or specific technology parks has been shown to work overseas (e.g. Sheffield University Advanced Manufacturing Precinct). Expanding the Industry Fellowship schemes significantly and tweaking the information to be more comprehensible for industry partners unfamiliar with ARC grant jargon would also help. On the opposite side, industry R&D experts are often ineligible for a T&R employment in a university, despite their often-extensive expertise, due to a lack of the formal *research* qualifications required by TEQSA in order to *teach*. All these opportunities for reform will require significant investment by the Government.

Therefore, we recommend that Government invest in co-locating industry with universities, as well as supporting specialised technology development infrastructure around them, especially when translational institutes can allow for scale-up and manufacture of innovative products. This may be a better use of the current funding and may create pathways for researchers to move flexibility between fundamental, applied and industry research throughout their career. Crucially, stimulating industry demand for innovation through targeted incentives and programs, rather than merely reforming the supply-side of research, will be key to success.

Research needs to be fully funded, nationally prioritised and separated from political cycle or grant funding, all while creating a robust, fluid market for researchers to feel secure enough to move around in.

### **Swinburne makes the following recommendations to increase our research impact:**

- Fully fund research and reform the remaining grant application processes into stage gates to reduce time wasted preparing unsuccessful bids.

- Implement national research priorities via long term “National Reconstruction Research priority” support for universities to specialise in key areas of national need, thereby creating globally competitive critical mass in areas of strategic importance.
- Add 2-3 Centre of Excellence topics and 2-3 CRC topics aligned with national needs to the current schemes and fully funding the activities in these specific areas would deliver a proof of concept and improve national focus and innovation outcomes.
- Invite and establish large-scale investment funding to grow the impact of these innovation interventions exponentially.
- Support the building applied research, technology development and commercialisation capacity inside universities to create pathways to impact and broker university-industry collaboration.
- Stimulate industry to incentivise research and development in Australia by reforming the R&D tax incentive and co-locating industry and university at translational institutes geared for scale-up and manufacturing of breakthrough technologies.
- Facilitate the development of a workforce that is flexibly moving from university to industry and vice versa. For example, encourage portable staff entitlement and remove current barriers to employment of industry staff by universities.
- Incentivise the return to shore of innovative Australian firms by subsidising their colocation on relevant specialist university campuses where their co-investment in infrastructure would assist in scaling up research in areas of national priority.
- Dedicate government procurement initiatives to provide customers to innovative early-stage companies, thereby unlocking significant additional private investment into such firms on the basis of predictable commercial revenue.

## **Best practice dual sector collaboration to grow the national human capital**

*This section addresses question 1, 5, 8, 9, 13, 20,21, 47, 48.*

Since the pandemic, universities have had to adapt to a changed world of hybrid delivery in ways previously unseen, moving from traditional methods of teachings. The Accords provide an opportunity to reshape the higher education sector to meet the knowledge and skills needs for current and future jobs, requiring fundamental shifts in existing offerings to meet skills required by industry.

Our tertiary education sector must collaborate, streamline regulatory barriers and simplify the student experience to navigate pathways especially between Vocational Education and Training (VET) and Higher Education (HE).

As a dual-sector institution, Swinburne knows firsthand the urgent need to reform the pathways process. We have forged our own way on this issue, connecting VET with HE and helping students craft their own education journey with our support.

### **Establishing a Coordination Body: Aligning Vocational and higher education**

Better alignment of VET and HE has been discussed and attempted numerous times for over 20 years. It has been an aspiration of numerous governments both at a State and Commonwealth level. However, due to the regulatory, cultural and varied teaching and assessment models, reform has been slow or watered down. Swinburne agrees with the Accord Panel that *‘As new jobs and industries emerge, new mixes*

*of knowledge, skills and capabilities will be required*, and we believe that this can only be done through greater cooperation between providers, accreditation bodies, government and industry.

Swinburne proposes a student and industry focused approach. We recommend the creation of a national coordination body within JSA. The body will have the mandate to investigate, promote and advise on pathways between VET and HE. This advisory body would not be expected to add to regulatory processes and will not impose on institutions any blanket one size fits all viewpoint. Its main purpose is to craft and promote pathways that address emerging and future workforce needs.

Australia has the capacity to leverage our first-class VET and HE offerings, providing students with different experiences, skills and objectives. Integration between VET and HE comes in many forms, each with their own challenges. Evidence from an NCVER report states that from the 28 true integration of VET and HE examples, 14 were discontinued, with the status of a further seven unclear.

We believe this new coordination body would create greater coherence in the tertiary sector if it adopted the following principles.

- Consultation would occur with industry from within JSA on skills needed across the continuum of AQF levels. This articulated pipeline of graduates will make future industries better equipped for the global market and give students a range of education settings for a fast-moving economy.
- Working with the regulatory bodies TEQSA and ASQA, this new body would promote consecutive pathways between the sectors developing student focussed resources while supporting institutions.
- Provide funding to dual sector universities to work with industry to develop and rollout integrated programs to bridge current and imminent skills shortages.

Due to the proposed body sitting within JSA, its establishment would not require legislative amendments, could be set up reasonably quickly and leverage off JSA's tripartite Ministerial Advisory Board that includes representatives from state and territory governments, unions, employers and experts.

### **National Recognition of Prior Learning (RPL) Framework**

Universities Australia is recommending a national framework for recognition of prior learning and Swinburne endorses this recommendation. In addition, we note that Australia has come a long way in better formulating and guiding students and institutions through the complex RPL process. This has come in many forms, through TEQSA guidance note 2019, AQF Review 2019 and ASQA's current update to their RTO standards.

Each review shares the same theme seeking to make the RPL process easier to access and more transparent, while ensuring that quality is maintained and qualification outcome requirements are met. An application for RPL can be complex, evaluating a person's prior learning, work experiences and general knowledge and skills.

To fix the ever-growing skills shortage in Australia, a more student focused RPL framework is necessary, with better student support through the process and assistance to institutions navigating between different AQF levels. This should be done through a national framework bringing together work from all regulatory agencies.

## Dual Sector Advisory Body

Dual sector universities like Swinburne are at the forefront of the jobs and skill challenge, providing a wide array of both VET and HE programs and delivering end-to-end industry relevant education.

Learners can undertake both VET and HE through a variety of pathways, providing graduates with skills in emerging areas of State and Federal Government priority, such as cyber security, advanced manufacturing, automation, nursing, mental health and domestic and family violence.

Swinburne recommends the establishment of a Dual Sector Education Ministerial Advisory Group. It would be a non-statutory committee made up solely of dual sector representatives, established by the Minister for Education to provide advice to the Commonwealth Government on issues and policies relating specifically to dual sector institutions including:

- Sharing ideas to improve pathways between VET and Higher education
- Collaborating on integrated programs to address skills gaps
- Establishing Best Practice to further build connections with industry
- Enhancing student experiences unique to dual sector universities
- Promoting dual sector course offering to international markets

Australia's six dual sector universities regularly collaborate. For example, they produced a joint response to the Productivity Commission's 2020 Report of the National Agreement for Skills and Workforce Development. The joint submission called for a more coherent post-secondary system.

The primary function of this group would be to develop terms of reference and a 5-year strategy that can be presented to government for endorsement and planning.

### CASE STUDY: Swinburne Cyber Academy



The Cyber Academy offers student three years' paid work within the cyber industry and extensive cybersecurity education and training. Students will receive coaching, mentoring, soft skills, ethics and leadership training, providing critical skills and experience for a rewarding career in the cybersecurity sector.

Students will receive a package offer of Swinburne's ICT50220 Diploma of Information Technology Advanced Networking and Cyber Security specialisation, with a guaranteed place in years two and three of BA-CYB Bachelor of Cyber Security upon completing their Diploma. The Cyber Academy has also been a tremendous opportunity for Swinburne's Vocational Education and Higher Education departments to co-design an innovative student-centric program.

This collaboration has been warmly received by students enrolled in the Academy, with feedback highlighting the satisfaction of combining studying and industry placement from the commencement of the program. Swinburne and Deloitte are excited to work with Industry partners, including Qantas, AGL, Coles, Westfarmers, NAB and Linfox.

## Creating one education system – in loans and regulation

Commonwealth assistance loans schemes to help and pay upfront tuition fees currently exist in both VET and HE. In HE, HECS-HELP loans have been hugely successful in supporting access and equity to a university education. On the other hand, loans schemes in VET have had a controversial and troubled

history. The previous VET FEE-HELP scheme was widely abused by private training providers, generating debt to \$3 billion in less than 3 years with questionable outcomes. This scheme was replaced by VET Student Loans in 2017 but uptake has been slow, due to strict eligibility and repayment structure. It remains restricted to a selection of Diplomas and higher courses.

Mirroring much of the sector's systems, loan support between VET and HE is complex and confusing for students undertaking study in both sectors. Swinburne is proposing a review of HECS-HELP loans and recommends one system for education loans that can be used across VET and HE.

This review should investigate the following:

- multiple models, looking at overseas examples
- initially focussing on areas with greatest skills shortage
- establishing safeguards to ensure sustainability and education standards are met

A single student loans model is key to enabling a new prototype of degree – one that incorporates key competencies of VET into HE with the opportunity for students to combine studies, thus including hands on applied learning within degrees. Swinburne is keen to explore these ideas but with current regulatory systems and loan schemes currently separate, a new way of learning for the modern economy and workforce is unlikely to take hold.

**Swinburne is recommending the following bold regulatory reform related to dual sector integration:**

- Establishment of a coordination body within Jobs and Skills Australia (JSA) to investigate, promote and encourage cross sector pathways for post-secondary school.
- Develop a national Recognition of Prior Learning (RPL) Framework, streamlining cross overs and acknowledgment of learning regardless of sector. Swinburne supports Universities Australia's positioning on this.
- Creation of a government advisory body specifically for Australia's dual sector universities in recognition of their unique offering and point of view of education translation.
- A comprehensive review of HECS-HELP loans, allowing students to add vocational education to their higher education study, creating a prototype of a new degree standard.

## **Driving Work Integrated Learning at scale**

*This section addresses question 1, 8, 13, 14.*

For Australia to remain competitive now and into the future, our university graduates need to be work-ready, graduating with industry-relevant knowledge and skills, with the ability to apply them to add value in professional workplaces immediately upon graduation. Work Integrated Learning (WIL) supports students to do just that, by applying and deepening their degree learning in authentic work settings and contexts.

In 2021 the Commonwealth commissioned UA to undertake research and report back on WIL. The report found that overwhelmingly, students value undertaking WIL. Participation in WIL has also been found to make a real difference to graduate outcomes, as demonstrated by the Graduate Outcomes Survey. The UA report also highlighted varied understandings of WIL and WIL practices across the sector. The report suggested that greater support was needed for students to participate, particularly equity group and

international students, who can face significant structural barriers to engagement, as well as challenges because of employer perceptions and financial constraints.

Our strategic plan is aimed at producing work-ready graduates that the nation needs. In our Horizon 2025 Strategic Plan, Moon shots 1 and 2 set our students up for success in their studies and in the workforce, which provides a pipeline for modern industry to build, innovate and develop with the help of students from dedicated fields of study.

**Moon shot 1: Every Swinburne learner gets a work experience**

All Swinburne undergraduate learners will experience work integrated learning and real industry experience during their degree, including placements, internships or industry-linked projects. This is made possible by Swinburne's extensive partnerships with leading Australian and global organisations. Learning by doing will define how we teach, assess and engage with students and industry. We will become curators of rich learning experiences, overcoming the boundary between work and study.

**Moon shot 2: Every Swinburne graduate gets a job**

Swinburne's goal is for every Swinburne tertiary and vocational graduate, including our alumni, to be a job taker or a job creator in a future world of work defined by technology, innovation and entrepreneurship. We will support our graduates to obtain a job through career support and lifelong learning. Our commitment is to connect learners and alumni with employers through networks and platforms and to provide the career development, skills and support to engage and succeed in a tech-rich future. We are sector-leading in this endeavour. In the competitive Melbourne-market, Swinburne has strong brand recognition as a university that offers real world education with a focus on practical application of study.

Swinburne is a pioneer in WIL: 2023 marks our 60<sup>th</sup> year of offering industry-based learning. Swinburne regularly reports its progress against these Moon Shots and we are tracking successful uptake of WIL in 2021 and 2022.

Measures	2021 Baseline	2022 Performance
	Full Year	December 2022
<b>Moon Shot 1. Every Swinburne learner gets a work experience</b>		
<b>Moon Shot 2. Every Swinburne graduate gets a job</b>		
Proportion (%) of Bachelors courses containing a WIL experience as a mandatory component	100%	100%
Proportion (%) of Bachelors courses containing WIL as a core component at every level of the course	44%	71%
Proportion (%) of Certificate IV, Diploma and Advanced Diploma VE courses with an industry placement, industry-linked project or exposure (e.g., guest speakers, taster programs)	82%	92%

As a proudly industry-focused university, we prepare our students for the job market and match our research and specialisation interests with our students' futures. Our 'Swinterns' are highly sought by industry partners and praised for the difference they make during their work placement or internships. The Swinburne model 'SwinReady' is one that resonates with students and industry partners alike and we

think further government support is needed to ensure that student uptake is equitable and not only limited to those who can afford it (with either time or financially).

Our SwinReady Authentic Learning Blueprint outlined that WIL at Swinburne should be:

- Curricular: Occur within an assessed, for-credit unit of study or as an assessed course requirement.
- Authentic: Involve authentic engagement with partner organisations and include industry feedback.
- Purposeful: Explicitly connect to unit/course learning outcomes, with authentic assessment that captures the authentic industry/community engagement.
- Prepared: Students are appropriately supported and prepared prior to any WIL experience.
- Supervised: Students are appropriately guided, supported, monitored and evaluated (including the provision of feedback) throughout the activity including reflective practise/debriefing.
- Collaborative: Designed and/or delivered with or for an industry or community partner.
- Reflective: Building understanding of real-world application / implications and contributing to the student's connection to their professional purpose.

Swinburne offers a mature ecosystem of WIL experiences to meet student learning needs and industry requirements which help to prepare learners for a wide variety of career destinations. These WIL experiences include:

- Accreditation placement: Industry / workplace-based learning experiences that are required for professional or industry accreditation - e.g., clinical placements, teacher education practice.
- Professional placement: Full-time paid industry / workplace-based learning experiences, typically undertaken on a paid basis for 6 or 12 months.
- Internship: Part-time or immersive short-term industry / workplace-based learning experiences, typically undertaken on an unpaid basis.
- Industry brief: Project-based learning experiences with an authentic brief and some industry involvement.
- Industry project: Project-based learning experiences with a live brief and industry partners acting as mentors and/ or clients.
- Study tour: Immersive experiential learning experiences involving engagement with industry partners and contexts – e.g., industry study tours, field trips.
- Entrepreneurship / start up: Authentic learning experiences focussed on new venture creation, leadership and management, entrepreneurial behaviour, skills and processes.

Our WIL offering is distinctive because of its scale. More than 7 in 10 of our undergraduate courses have embedded WIL at every level of the course, offering a progressive scaffolded series of industry learning experiences. Our goal is that by the end of 2024, all courses will contain fully scaffolded WIL curriculum. Career development learning is included in every internship and placement unit. We are also one of very few Australian higher education institutions to offer students the option of a full-time paid (scholarship or

direct-hire based) 6 or 12 month immersive WIL experience in industry through our professional placements program within our professional degrees.

#### **CASE STUDY: Olivia's business placement**



*"I wanted to gain an understanding of what working in the industry felt like and not just read it from a textbook. Swinburne's program has helped me create a pathway into what my career could be".*

*"Before beginning my placement, I had a baseline understanding of how these analytics platforms work, but since working at The Lumery, I have had exposure utilising these tools within real client projects and have been exposed to the data that is built for those specific industries".*

*"My view on real industry experience has changed since my placement. As anticipated, it has enhanced my industry skills, my technical ability and my work ethic. More importantly, it has helped develop soft skills like self-confidence, accountability and teamwork".*

#### **Stipends-supported internships placements to provide support to students undertaking WIL**

The most prominent barrier for students to undertake WIL is the financial burden. For employers, it is challenges in relation to available resources, capability and financial implications.

In Australia, the Fair Work Act stipulates that students may undertake unpaid vocational placements providing that the placement is approved, unpaid and part of a course. Many students undertaking work integrated learning need to give up paid work or reduce hours for the duration of the experience, a significant barrier for many who do not have financial reserves to meet living expenses during unpaid placement or internship.

In Canada, a wage subsidy is paid to employers to incentivise the hiring of students for cooperative education terms. Federal funding (\$800m Canadian) is targeted at industries with greatest skill deficiencies / talent shortages to attract students.

Other universities around the world and in Australia have assisted in other ways through a fixed stipend to the student directly from the university or through the employer. The Commonwealth Government does provide financial support via the Higher Education Participation and Partnership Program (HEPPP) but this is targeted towards specific cohorts who are from a low SES background, from regional or remote area or are an Aboriginal and/or Torres Strait Islander person. Universities do use HEPPP funding to provide scholarships to equity group students, with good impact.

Where the student undertakes full-time placement (that is, a 6 or 12 month full-time WIL experience), some financial support is imperative due to the students' loss of income from their part-time work for a significant period of time. Swinburne provides financial support in the form of scholarships, but at present there is a lack of clarity around whether a scholarship should be taxed as income or provided tax free as it is for educational purposes.

Swinburne recommends that arrangements for financial support for WIL placements be explored with a view to providing further support to students where the financial burden is a major barrier. The support could be through clarifying the tax status of WIL scholarships, promoting the option of tax-deductible



stipends by employers and instituting a government scheme to provide targeted WIL scholarships to students who would otherwise be financially disadvantaged by undertaking a placement or internship.

One further option to incentivise students' participation in WIL and reduce the financial burden would be to make credit-bearing placement and internship units exempt from student contribution, while continuing to support these units with Commonwealth funding.

### **Increased Government support for international students**

Ensuring that international students have access to WIL experiences is vital to the Australian economy in retaining a skilled workforce from overseas.

The Universities Australia 2021 report on WIL reported several findings in relation to the barriers for international students to undertake WIL, including:

- Lack of work experience prior to university study
- Language and cultural barriers
- Difficulty in accessing information
- Visa restrictions and citizenship requirements
- Employer perceptions

In 2022, Swinburne was funded by Global Victoria under its International Education Resilience Fund to develop a program to foster international students' engagement with WIL and employability services. In addition to the barriers outlined above, we found that some international students lacked confidence when faced with the prospect of applying for WIL opportunities. Further, we found evidence that employers perceive international students as having poorer language skills and cultural differences that might suggest poor workplace fit. Through a program of targeted careers advice support, tailored WIL opportunities and employer information and education, we were able to dramatically increase (double) international student engagement with internships.

At present, international students in Australia on international student visas are required to limit their hours of work per week, which includes elective WIL experiences. This cap was lifted during the pandemic but will be reinstated from July 2023. The cap on WIL is a significant barrier for international students who may otherwise undertake an internship using one of their elective subjects and we recommend its immediate removal.

We recommend that the government continues to work with UA and implement the recommendations of the UA National Work Integrated Learning Strategy including possible support programs for international students and informational and educational programs for employers. Swinburne employs specialist international and equity group student WIL and employability officers to break down barriers to WIL and to support students with their career development. This approach means that student needs are more likely to be met and experiences, resource and programs are tailored to optimise outcomes for all.

### **CASE STUDY: Wendy's story, a Bachelor of Engineering (Professional) student from China**



The 'professional' word in Wendy's degree means that her course incorporated a 12-month work placement within an established organisation – in her case, as a student engineer at Bass Coast Shire Council. She learnt a lot on the job while also being able to put her

university lessons into practice, from taking care of building regulations and development to maintaining and upgrading roads, footpaths and parks.

*"I'm so glad that I chose Swinburne. People at work – in my current and previous jobs – think that Swinburne students are more practical in their approach. I've met many colleagues, some more senior than me, who are also Swinburne engineering graduates," says Wendy.*

### **Building An Innovation Economy**

Moving beyond the structural barriers to WIL and financial support for students and incentives for industry, more can and should be done to also embed WIL into the research and innovation ecosystem. This includes:

- Enhanced government support for innovation precincts (combined industry / research with embedded teaching (particularly WIL and degrees like the Bachelor of Applied Innovation) – e.g., inserting WIL into CRCs).
- Support for particular types of WIL that foster innovation economy skills (e.g. interdisciplinary WIL, innovation & entrepreneurship, certain kinds of industry projects).
- The diversity angle in driving economic & social innovation and implications around taking on WIL students from diversity backgrounds.
- Support for HDR WIL and building Australia's research capacity across industry.
- Support for development of Australia's higher education teaching quality assurance and innovation capacity, including in WIL, through (re)establishment of a national HE learning & teaching organisation.

### **Swinburne recommends the following bold long-term reforms to WIL:**

- Australia adds to its vocational placements delineation in the Fair Work Act to allow for stipend-based financial support for students. We suggest allowing employers to provide a fixed stipend to help meet students' financial commitments, which would be tax deductible to incentivise industry to engage more interns.
- Credit-bearing placement or internship units to be supported by Commonwealth funding, but exempt from student contribution, to provide an incentive to student participation.
- Greater Government support to international students in undertaking work-based placements, which may include reviewing visa requirements to allow elective and paid WIL to be exempt from the current visa working hours cap rule.
- Government support services and targeted stipends be instituted for international and equity group students when undertaking work-based placements or internships to help ameliorate financial disadvantage and structural barriers to engagement.
- Consideration of WIL experiences to be included in the funding of research, to allow HDR to benefit from industry placement during their studies. The French system of CIFRE would provide a good model for industry funded scholarship for HDR students.

## List of recommendations

### Smaller, specialised universities

*This section addresses questions 1, 2, 7, 17, 23 and 45.*

- Encourage university specialisation (tech stream, research-focused university, liberal arts colleges etc) and ensure that equipment, teaching hours, student contribution etc are assessed agnostically, empirically, fairly and equally.
- Avoid the proliferation of research centres and equipment aimed at similar or cognate research by establishing shared, national interest infrastructure, in strategically distributed locations, around which researchers and research students should gravitate rather than attempt to replicate in their own location. This certainty of funding would also alleviate the brain drain by providing secure career pathways for academics at all levels of experience, creating space for long-term, revolutionary research and its application (more on this in section 2).
- A distinct funding for research that specifically precludes its cross-subsidisation by teaching activities to avoid the built-in imperative of student growth and encourage investment of student fees in learning innovation and student learning outcomes.
- A single level of student contribution for all discipline clusters, coupled with a cluster-specific commonwealth funding that reflects the true cost of teaching these disciplines.
- Incentivise industry to co-invest in the development of the human capital they require. For example, employers could be encouraged to pay graduates HELP debt by making this tax deductible without incurring any fringe benefit tax (the foregone FBT revenue will be offset by the faster and more assured settlement of student debt).
- To mitigate any adverse impact on the overall funding envelope, measures aimed at improving the overall equity and fairness of the system could be introduced, such as:
  - Increasing the threshold for loan repayment (say to \$80K), reintroducing the “Voluntary Bonus Repayment” to encourage early repayment, cap the total level of debt per student, or introduce interest on loan balance post-graduation.
  - Introduce means testing for all domestic students to enable more generous funding for low SES or equity groups.

## **Increasing Australia's Research & Innovation impact**

*This section addresses questions 24, 25, 26 and 41.*

- Fully fund research and reform the remaining grant application processes into stage gates to reduce time wasted preparing unsuccessful bids.
- Implement national research priorities via long term "National Reconstruction Research priority" support for universities to specialise in key areas of national need, thereby creating globally competitive critical mass in areas of strategic importance.
- Add 2-3 Centre of Excellence topics and 2-3 CRC topics aligned with national needs to the current schemes and fully funding the activities in these specific areas would deliver a proof of concept and improve national focus and innovation outcomes.
- Invite and establish large-scale investment funding to grow the impact of these innovation interventions exponentially.
- Support the building applied research, technology development and commercialisation capacity inside universities to create pathways to impact and broker university-industry collaboration.
- Stimulate industry to incentivise research and development in Australia by reforming the R&D tax incentive and co-locating industry and university at translational institutes geared for scale-up and manufacturing of breakthrough technologies.
- Facilitate the development of a workforce that is flexibly moving from university to industry and vice versa. For example, encourage portable staff entitlement and remove current barriers to employment of industry staff by universities.
- Incentivise the return to shore of innovative Australian firms by subsidising their colocation on relevant specialist university campuses where their co-investment in infrastructure would assist in scaling up research in areas of national priority.
- Dedicate government procurement initiatives to provide customers to innovative early-stage companies, thereby unlocking significant additional private investment into such firms on the basis of predictable commercial revenue.

### **Best practice dual sector collaboration to grow the national human capital**

*This section addresses question 1, 5, 8, 9, 13, 20,21, 47, 48.*

- Establishment of a coordination body within Jobs and Skills Australia (JSA) to investigate, promote and encourage cross sector pathways for post-secondary school.
- Develop a national Recognition of Prior Learning (RPL) Framework, streamlining cross overs and acknowledgment of learning regardless of sector. Swinburne supports Universities Australia's positioning on this.
- Creation of a government advisory body specifically for Australia's dual sector universities in recognition of their unique offering and point of view of education translation.
- A comprehensive review of HECS-HELP loans, allowing students to add vocational education to their higher education study, creating a prototype of a new degree standard.

## **Driving Work Integrated Learning at scale**

*This section addresses question 1, 8, 13, 14.*

- Australia adds to its vocational placements delineation in the Fair Work Act to allow for stipend-based financial support for students. We suggest allowing employers to provide a fixed stipend to help meet students' financial commitments, which would be tax deductible to incentivise industry to engage more interns.
- Credit-bearing placement or internship units to be supported by Commonwealth funding, but exempt from student contribution, to provide an incentive to student participation.
- Greater Government support to international students in undertaking work-based placements, which may include reviewing visa requirements to allow elective and paid WIL to be exempt from the current visa working hours cap rule.
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