

Tertiary Education Innovation - two case studies offer possible ways forward

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FINAL REPORT

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Australian
Universities Accord

Acknowledgement of Country

The authors of this report, Think Change Resolve consultancy, wish to acknowledge the Traditional Custodians of the lands we live and work in, the Gadigal peoples of the Eora Nation. We pay our respects to Elders past and present. We celebrate continuing custodianship and care for country, culture and community and commit ourselves to working in partnership with First Nations for Voice and justice.

Disclaimer

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Tertiary Education Innovation - two case studies offer possible ways forward

Executive summary

The authors of this paper have written two previous papers on the need for Australian universities to focus on the increasingly diverse population of potential students, the communities that host them, industries they support and the big questions that confront Australian and global populations. The second paper focussed on regulatory, policy and funding issues that inhibit positive responses to these challenges, suggesting both policy measures for consideration by government and strategic questions for the sector.

This paper has been commissioned by the Commonwealth Department of Education, for the Higher Education Accord Panel. The brief is to summarise the key issues arising from our previous papers and then to undertake two case studies to tease out the same issues with examples. While the two papers had a broad scope, suggesting policy measures going to the core structures of the Australian higher education system, we have been asked in this paper to focus instead on specifics. We examine measures that could be taken to encourage innovation that responds to industry and community need and to facilitate that successful innovation to go to scale. Our purpose is to contribute ideas for a responsive university sector and which are affordable and achievable in the near term.

In keeping with the analysis in the first two papers, we selected two examples that also include both non-university higher education provision and the vocational education and training (VET) sector. Both case studies selected involve cross sectoral collaboration highly responsive to the community. In one case that is responsive to growing new technology industry in NSW. In the other it is responsive to the Northern Territory community, including both tradition-oriented communities and region specific employers.

The Institute of Applied Technology - Digital (IAT-D) in NSW and Charles Darwin University (CDU) both demonstrate progress in broadening the scope of higher education, and creating programs and structures that are designed with the specific needs of both learners and employers in mind. In fact both have gone further, investing in their clients and partners and engaging both in co-design exercises to shape their educational offers.

Both IAT-D and CDU have invested in a new form of tertiary education, the microcredential. Microcredentials sit outside the current Australian Qualifications Framework (AQF) and the regulatory system for VET and higher education qualifications. This has facilitated quicker and more adaptive course development, faster to meet the needs of industry with qualifications that are also more attractive to learners who may not pursue traditional higher education or VET courses. Both IAT-D and CDU have, nonetheless, been conscious to develop these qualifications in ways that are consistent with the AQF, specifying learning outcomes and volumes of learning. Both have also put enormous effort into mapping and achieving agreement about the 'stacking' of microcredentials and the credit each will gain for learners toward AQF qualifications.

The challenge in executing these innovative courses exposes key differences between the IAT-D and CDU and highlight unnecessary obstacles such innovation can face.

CDU is a single, dual sector, self-accrediting Table A university. While informants at CDU certainly highlighted the amount of detailed work required under current regulatory systems to achieve a credit recognition regime, this is much easier for being within one corporate entity, capable of deciding and

executing such a program. In fact, CDU made a decision profoundly in the interests of disadvantaged learners, to design credit pathways into its higher education qualifications from all its VET offerings.

IAT-D, on the other hand, had to go to two university partners and seek their support, as self-accrediting Table A universities to grant credit recognition. The host of IAT-D is TAFE NSW, 130 years established, a state statutory authority that has accountabilities to two regulators and two levels of government and providers both VET and higher education qualifications. It is, however, not self-accrediting for either VET or higher education courses.

Again, in this case study, players of goodwill across the three education provider partners were able to negotiate satisfactory and innovative outcomes. The amount of effort that took, some of the internal conflicting interests that had to be managed in the university partners and the improbability under this regulatory regime of scaling up uptake are, however, significant barriers to scale. All militate against this being an attractive pathway for TAFE, even though it has achieved great engagement from both industry and students.

There is a strong case for a cohort of non-university higher education providers that are well established and have strong reputations, including TAFEs that provide higher education programs, accountable as they are to two levels of government and two regulators, to be recognized within the higher education provider categories and given self-accrediting status. This could start with microcredentials.

The Commonwealth Government has recognized the importance of microcredentials, with a Framework and a web based clearing house advertising them already established. It has recently also announced a Microcredential Pilot program to foster development of the subsector. However, the Pilot is only open to Table A universities, so would miss out on supporting one of the two case studies offered here. This is another example of the distortion in the regulatory and funding systems that is exclusive of non-university providers in ways that are actually missing innovation opportunities.

It would be possible to argue for all of the regulatory, policy and funding questions to be worked out as a priority, to maintain the integrity of the overall system and to determine the place of microcredentials within it. However, this would push back establishing a basis on which to scale a timely and important development, one which has arguably attained its utility and innovative appeal from avoiding our somewhat turgid regulatory and policy structures. It is also arguable that we do not yet know enough about how microcredentials will work at scale, in order to answer the questions necessary to do the policy work that would precede all the decisions needed.

A guaranteed five-year funding stream, with broader participation than the current pilot and a strong emphasis on credit recognition across all participants, would ensure one stream of sector growth is a product sought by industry, communities and learners. This would allow assessment to be made in time to commence the regulatory policy work informed with more knowledge of the microcredential market and take up, before the five-year program ends. Thus it would support assessment of progress, corrective of unforeseen risks and sufficient certainty by, say the end of 2024, to allow early movers (such as the IAT-D and its sponsors) certainty before the first tranches of investment expire.

In addition, the paper examines the implications of the question of place. CDU is an exemplar of designing bespoke education programs with and for specific regions. It serves disadvantaged learners, diverse and small communities in the tropics and the deserts of the north. It is achieving success in place-based work, in which it invests heavily. CDU is a relatively small university, with less means than most to fund this work, though with a cohort of academic staff skilled and committed to the work.

We finish the paper with a strong recommendation for funding for place-based initiatives and work such as this, which would arguably be targeted at universities serving diverse communities such as the north of Australia. This could be through loadings in the main funding structures for universities or it could be a bespoke grants program.

The paper finishes with 7 recommendations that are framed with the brief in mind. They are not big redesign proposals for the CGS or the HLP loans system. They do not go to the overall design of the system. They offer some achievable and specific suggestions to support innovation, in this case specifically at the intersection of VET, higher education, innovation and responsiveness.

We would like to thank the many contributors to our case studies, especially from the IAT-D and CDU. All were generous and thoughtful, passionate about their work and making a positive difference for the communities they serve.

Paper for Higher Education Accord Panel June 2023

Universities and other institutions of higher education play a strikingly important role in contemporary society. Beyond their most visible and direct function of providing education and skills development to students, universities are a centre of research and innovation, thought leadership, play a critical role in advancing economic, social, and cultural development, and are a major pillar of Australia's global engagement. The higher education sector in Australia educates hundreds of thousands of students each year and employs over one hundred thousand academic and professional staff.

Australia also has a unique vocational education and training (VET) system, built on the need for lifelong learning and workplace needs expressed through competency standards. Since the leadership of Myer Kangan in the 1970s this has been the hallmark of delivery and development in our public Technical and Further Education (TAFE) system.¹ These principles have stood us in good stead for over thirty years and many of the characteristics of TAFE and the wider VET landscape need to be retained and fostered. In particular, the wide access it provides to lifelong learning, labour market entry and re-entry, and an unremitting focus on workplace needs.

Our higher education system equally, has been successful in enabling multiple pathways into universities and non-university higher education providers (NUHEPS), including through TAFE, as it moved into mass provision of higher education. Australia can boast uniquely democratic approach to post-secondary education which encompasses VET and higher education.

Despite the notable successes of the Australian higher education sector, there is a growing sense that the broad uniformity of Australian universities runs contrary to the increasingly diverse needs and aspirations of the sector's consumer base. How to combine some of the best features of both our higher education and VET systems remains illusory at this point, other than in exceptional examples.

Governments, the private sector and the broader community seek to shape a 21st century Australian economy with high quality education, technological innovation, green energy infrastructure, and sustainable industrial practices at its core. A useful recent example is the commitment by the Commonwealth Government to turn Australia into a green energy superpower.² This will involve developing hi-tech manufacturing to capture a greater portion of the industrial value chain, expanding mining operations, particularly in the area of critical minerals necessary for the production of low-carbon energy infrastructure, and with this the institution of advanced technical education, innovation in land management practices, including long-term collaboration with Indigenous communities.

Pursuing this ambitious economic agenda will involve improving Australia's domestic capabilities in cutting edge technological research and innovation, and the development and revitalisation of regional economic hubs. There are very clear place-based educational and operational needs to achieving these plans, as well as needs to articulate clearer and better education and workforce pathways through and between the sectors that will make up the 21st century Australian economy.

Following three federal and other state and territory Royal Commissions in health and human services and the legitimacy crisis these reflect in those sectors, analogous substantial reforms in workforce education and training strategies are needed in those sectors. In this sector also, innovation is needed within both VET and higher education and in pathways that unite them. The era has passed where either human services or advanced technology could afford category distinctions between support workers with specified competencies and scholarly trained professionals.

In his 2017 book on the subject, Glyn Davis argued that a single idea of the comprehensive research university prevails in Australia, creating limits for what universities can offer.³ Peter Dawkins, in the 2021 report he co-authored with Martin Bean, argued for stronger collaboration with industry and the Vocational Education and Training (VET) sector and for universities to embrace the concept of skills and

¹ Kinsman, N. Biography Myer Kangan 1917 - 1991 [Australian Dictionary of Biography, Volume 19](#), 2021 last visited 25 June 2023.

² Joint Standing Committee on Trade and Investment Growth, "Inquiry into Australia's Transition to a Green Energy Superpower," Parliament of Australia, October 11, 2022, https://www.aph.gov.au/Parliamentary_Business/Committees/Joint/Joint_Standing_Committee_on_Trade_and_Investment_Growth/GreenEnergySuperpower.

³ Glyn Davis, *The Australian Idea of a University* (Carlton, Victoria: Melbourne University Publishing, 2017).

the contribution universities can make to skills needs.⁴ In NSW a review of the VET system by Peter Shergold and David Gonski addressed the potential for the two sectors to work with local industry and provide a stimulus to economic growth.⁵

Over the last two years a number of collaborators on this project have written two papers about the need for universities better to respond to the needs of students, communities and the economy and the regulatory and policy prerequisites for this to be achieved.⁶ The argument is broad, going to what is at stake and the implications of the structure of the post school education sector in Australia. It argues, for example, that structural advantages enjoyed by universities that are built into the system also act to inhibit university innovation. These advantages in fact act against the better interests of VET, the non-university higher education providers and universities themselves.

The new Australian Government has commissioned the University Accord process to consider future reform of the sector, following the failure of two big reform agendas over the previous decade and an unnecessarily combative environment between universities on the one hand and governments and industry on the other. This paper has been commissioned by the Department of Education to support the work of the University Accord Panel. It starts with the summary of the two previous papers and draws out our earlier themes of barriers and enablers to innovation in higher education, and the importance of VET in the post-secondary landscape.

The new piece of work commissioned for the University Accord Panel is a more detailed look at two case studies of innovative educational models, designed specifically to meet the needs of industry sectors and communities in very different parts of Australia. Both share the feature of being an attempt to kickstart new combinations of VET and HE qualifications, innovative pathways for students and responses to needs in their local economy. Both also provide an opportunity to illustrate specific components of the issues raised at a higher level in the two earlier papers.

The Institute of Applied Technology - Digital (IAT-D) in NSW and Charles Darwin University both demonstrate progress in broadening the scope of higher education, and creating programs and structures that address the above-mentioned challenges in innovative and instructive ways.

The purpose of this paper is to complement the broader argument of the earlier papers with analysis of enablers that might enable the scaling up of innovation at the interface of VET and higher education, specifically in the service of particular communities or industries.

The University Accord process will address and make recommendations on the whole of the system, the big funding questions, levers and incentives that need to be carefully balanced to achieve both growth and sustainability, inclusiveness and world class standing. The brief for this paper is less ambitious. It offers some achievable steps in an important but specific area that can achieve real progress. It offers a contribution to meeting community, industry and economic needs and decongesting the vexed set of problems that impact collaboration across the VET and higher education system. The paper aims both to offer some practical ways forward on those issues and also to illustrate that some of these solutions might also be key to reinforcing other important reforms, such as to the Australian Qualifications Framework.

⁴ Martin Bean and Peter Dawkins, 'Review of University-Industry Collaboration In Teaching and Learning' (Department of Education, Skills and Employment, 7 December 2021).

⁵ Peter Shergold and David Gonski, 'In the Same Sentence, Bringing Higher and Vocational Education Together' (NSW Government, March 2021) <https://education.nsw.gov.au/about-us/strategies-and-reports/our-reports-and-reviews/review-on-the-nsw-vocational-education-and-training-sector> last visited 25 June 2023.

⁶ Ian Anderson and Robert Griew, "The Future of the University Sector Post Covid-19," 2022, Ian Anderson, Robert Griew et al., "Encouraging a Responsive University Sector – How Have Regulation and Funding Systems Impacted This Goal?," 2022.

The need for diversity and innovation in Australia's higher education system; a summary of two previous papers written by Professor Ian Anderson AO, Robert Griew and colleagues.

The definitions attributed to the four types of higher education providers have regulatory and funding consequences that can stifle innovation and diversity.

The Australian higher education sector consists of four types of providers each with its own legislative definition: Institute of Higher Education, University College, Australian University and Overseas University. All Australian Universities fit into the comprehensive research institute model with a dual requirement of delivering education and world class research across various fields, setting them apart from other higher education providers. Universities operate within a complex regulatory and funding environment. These instruments both define what it means to be a university, and actively shape how universities perform their allocated role within the broader higher education ecosystem.

The following instruments are key in regulating and funding higher education.

- The **Higher Education Standards Framework 2021 (Threshold Standards)** which establishes the Threshold Standards against which the Tertiary Education Quality and Standards Agency (TEQSA) assesses educational quality. Part A of the Framework provides the minimum standards higher education providers must meet along all stages of the student learning journey. Part B of the Framework specifies the criteria providers must meet to be registered in different provider categories.⁷
- The **Higher Education Support Act 2003 (HESA)** which provides for the Commonwealth to give financial support for higher education. In so doing, the HESA explicitly determines which types of higher education providers are eligible for which categories of funding.⁸
- The **Australian Qualifications Framework (AQF)** which establishes the standards Australian higher education qualifications must meet, thereby guiding course design and delivery.⁹

The dual requirement to both deliver education across a broad suite of fields, and conduct world standard research, is what sets Australian universities apart from both the Institute of Higher Education and University College categories. This dual requirement is also what underpins one critique of uniformity, that some universities could better serve their consumers if they were freer to focus on their educational offering or freer to fulfil their research obligations in more impact oriented research focussed on local economy, community or ecology.

If a research element in the definition of universities is maintained, there needs to be the creation of more positive options for non-universities.

Non-university higher education providers (NUHEPs) are disadvantaged from a regulatory and funding standpoint when compared with universities. Only universities are eligible for full Commonwealth funding, while students attending NUHEPs are required to pay a 20% loan fee for HECS-HELP loans. This policy discourages students from choosing non-university degree providers and creating an anti-competitive environment.

While universities can develop and approve their own qualifications and courses, NUHEPs have no or limited self-accrediting powers and must submit their courses to Tertiary Education Quality and Standards Agency (TEQSA) for approval. This hampers the ability of NUHEPs to offer interdisciplinary

⁷ Department of Industry, Innovation, Science, Research and Tertiary Education, "Higher Education Standards Framework (Threshold Standards) 2011," March 2013, <https://www.legislation.gov.au/Details/F2013C00169/Html/Text>, <http://www.legislation.gov.au/Details/F2013C00169>.

⁸ Education and Training; Prime Minister and Cabinet, "Higher Education Support Act 2003," accessed August 1, 2022, <https://www.legislation.gov.au/Details/C2017C00311/Html/Text>, <http://www.legislation.gov.au/Details/C2017C00311>.

⁹ Australian Qualifications Council, "AQF Second Edition," Text, AQF, March 16, 2021, <https://www.aqf.edu.au/publication/aqf-second-edition>.

and innovative education programs, as they face challenges in gaining accreditation. TEQSA's use of university academics for curriculum proposal appraisals exacerbates the challenge for NUHEPs as conflicted interests are at least perceived to be at play.

Prompted by the impracticality of maintaining the University category as closed and unchanging as well as the negative characterisation of NUHEPs, the Coaldrake review of the Higher Education Provider Category Standards was conducted in 2019. In his review, Peter Coaldrake recommended a new, more positively named category for non-universities- the National Institute of Higher Education category - to replace the former Australian University College category.

The new category was to be a more plausible pathway to becoming a university as well as a category an excellent education provider might seek to attain on the basis of its own merits. National Institutes would also be a higher status point even for those institutes not focussed on transition to becoming a university. The previous University College category was only open to those committed to a pathway to become a university (and judged likely to achieve this outcome). It did not offer a high value institutional status for excellent higher education.

The revisions of the University College category need to go further.

Although the previous Commonwealth Government accepted the intention of this recommendation, they kept the 'University College' title. This was widely understood to be a gesture toward the desire of the non-universities to achieve some association with the prestige of the term university. This was critiqued by others, including us, as a concession likely to inhibit not to encourage innovation.

Consequently, providers in this category aspire to see themselves as a quasi-university, or simply as an institution on the path to full university status, rather than relying on their acknowledged status as a high calibre National Institute to pursue their own bespoke offer. If a new name was implemented, and with it a more established, respected, and independent category of institution, these providers could focus on being a high-quality education institute and promote innovation. This would be enhanced if accompanied with real reform to overcome the way the system is skewed at present toward universities. This could include removing the anti-competitive loading on HELP loans or supporting self-accrediting status for those achieving National Institute status, even if not research institutes.

The re-imagined University College category does enable a pathway for self-accrediting status, but this is not immediately granted as it is with the Australian University category. The funding arrangements of these providers did not change as a result of the review, and students remained subjected to the 20% loan fee if they wished to attend a University College. Although some positive change followed the Coaldrake review, there are still anachronistic and anti-competitive measures inflicted on non-universities.

Current higher education funding limits the ability of Australian Universities to become mission specific.

Under the Commonwealth Grant Scheme, funding for Commonwealth Supported Places is not well aligned to the cost of delivery. This creates incentives for universities to deliver courses with a lower cost of provision and the ability to generate surplus values (such as business or law degrees). These surpluses then subsidise courses with a higher cost (such as science degrees). This is compounded by the underfunding of research, through both block and competitive grants, which creates additional incentives for universities to extract surplus value from teaching activity.

The current funding system is built upon the assumption of mass cross subsidy across a comprehensive university. This prevents universities from specialising in a particular field. Two proposed reforms to current policy that might facilitate more specialisation would be:

- more precise alignment of funding with costs of each cluster of degree funding levels and allowed fees, and

- allowing specialist universities some limited / regulated ability to charge fees beyond the current regulated schedules for a bespoke, specialisation offering.

Current legitimacy problems undermining the university sector are predicatable given incentives operating on universities

Universities have suffered significant legitimacy crises over the same period that the sector has come under political criticism from some senior figures in the previous government and some in the business community. These legitimacy crises make it harder for universities to resist their characterisation as entitled, elite and self-serving institutions by their critics.

Two prime examples of legitimacy undermining problems are the spate of findings by the industrial regulator, the Fair Work Ombudsman (FWO), of leading Australian universities underpaying especially casual staff and popular perception regarding the international student sector that provides large amounts of revenue to universities and has grown rapidly. In both cases, the universities have a case to answer.

The FWO comparison of universities to the fast food sector in industrial practices was aimed at driving compliance with current enterprise agreements, something to which Chancelleries protest they are committed. Australian universities quite legitimately point out that international education, of which they provide the lion's share, is the largest services based export sector in the Australian economy and is still sought by substantial cohorts of overseas students.

Nonetheless there are common incentives operating on both phenomena, namely the overwhelming need at both institutional and faculty level to create surplus value in a highly regulated financial environment. Universities are very decentralised institutionally and heads of academic departments may well not understand the complex interaction of an antiquated national university staff award, which bases casual staff remuneration on 'piecemeal' methods largely rejected elsewhere in the economy, with their particular institutional enterprise agreement. And they operate with an overwhelming imperative to relate funds to support the unfunded costs of research in their Department, including for research professors with higher institutional prestige than they may carry.

International students are an unregulated fee market for universities and create funding able to be allocated by universities. The large growth and proportional representation of international students lacks significant credibility among a large proportion of domestic students and lacks a clear narrative that frames the international student market as the significant positive it could be for domestic students. International students come to Australian universities and do not interact significantly with Australian students, something that could clearly be a positive design feature of university experience, creating connections between future professionals and leaders across Australian society and the countries of our region.

Both of these phenomena are clearly the responsibility of individual universities and a burden on the credibility of the sector as a whole. The point of the analysis in our two papers was to situate each in the context of highly regulated, implausible business models and highly decentralised operations. In this context, possible strategies such as adoption of multi-employer industrial bargaining (eg for the related parts of the sector – technology universities, regional universities etc) – are also important.

The discontinuities of the VET and higher education systems

In addition to the anticompetitive distortions built into the interface between the university and non-university higher education sectors, there is dysfunction in the mismatch in the design of the vocational education and training and higher education systems.

Employers value both theoretical knowledge and practical skills in graduates, and universities currently have the capability to provide opportunities for graduates to gain both skills. However, the foundation of pedagogy and credential design in the two sectors distinguish and separate knowledge and skills as if they are fundamentally different, distinct in category.

VET is funded via complex Commonwealth / State grant programs and universities via the combination of volume driven grants and the HECS HELP program. Funding for universities has increased continuously for decades. Funding for VET has had periods of increase but long flat periods too.

Qualifications offered by universities are self-accredited by internal academic governance bodies and are based on concepts of knowledge and scholarship. VET qualifications are determined by the national regulator, assessed against national training standards, those determined through complex tripartite processes. The qualifications sit within the Australian Qualifications Framework (AQF) which has traditionally separated VET and higher education level qualifications by type, with VET qualifications based on competencies and skills and higher education qualification levels defined by scholarship and knowledge.

Universities have no legal barriers to collaborate with non-university higher education providers or VET providers, for example they can offer complimentary certificate or diploma programs. In addition most of the public sector VET providers, the TAFEs, are also non-university higher education providers and a number of both universities and non-university higher education providers offer VET qualifications. Both higher education and VET providers also offer other courses, including microcredentials, that stand aside from their AQF credentials.

In reality the differences in self-accrediting capacity, in funding and in the fundamental discontinuity between the conceptualisation of qualifications in the two sectors make integrating educational offerings, or creating pathways significantly difficult. Notwithstanding the significant emphasis on skills, indeed more narrowly defined competencies, in many university courses (think nursing or medicine), universities insist that the fundamental educational constructs of theory, knowledge and scholarship mark a categorical difference between their educational mission and that of the VET sector. Worse the complex VET standards process and the narrow focus on skills and competencies undersells the work of many graduates of apprenticeship and traineeship courses. The combination mitigates against effective pathways for students, workers returning to education, and mutual recognition of learning.

A 2019 review of the AQF by the late Professor Peter Noonan and team recommended that the AQF could allow for sophisticated qualifications development from universities and other tertiary education providers that will more flexibly meet professional and tertiary education needs for today's students and employers. The review included measures to encourage credit recognition across the VET and higher education sectors, envisaging a different future.

There would be a broad range of options and pathways for transition to post school education and lifelong learning is a practical reality.

Multiple pathways between VET and higher education are normalised and will no longer be hierarchical and linear. This will require reinvigorating the VET system and raising its standing.

The system would normalise, "short, purpose-built, flexibly delivered qualifications – within and outside the formal qualification system – to gain new skills and knowledge". Credit recognition and recognition of prior learning will be normalised.¹⁰

It will also be important for the policy and regulatory work that is needed to better organise the relationship between university and non-university education to extend to rethinking the structural discontinuities that inhibit innovation and customer centricism across the tertiary education system.

¹⁰ Peter Noonan, "Review of the Australian Qualifications Framework Final Report 2019," Text (Department of Education, Skills and Employment, 2019), <https://www.dese.gov.au/higher-education-reviews-and-consultations/resources/review-australian-qualifications-framework-final-report-2019>.

Two case studies of innovation across the VET and higher education divide

In recent decades, Australia's university sector has grown rapidly to become a central sector in the development of the Australian economy. Yet the sector is facing major challenges in delivering high quality education that aligns with national, as well as community, needs. Addressing structural barriers to innovation that will allow this greater alignment, will include addressing the discontinuities between universities and other higher education institutions and also VET providers.

Our previous papers focussed on change needed to the regulation and funding of universities in order to facilitate a responsive sector overall.

In this report, we have selected two case studies that shed light on issues with aligning the VET and higher education systems, both to complement each other as well as interface more directly with industry, state, and community priorities. These take us to recommendations focussed on specific parts of the system, changes that could facilitate these innovative models achieving scale over time.

Both case studies also exemplify a focus on place and on specific industries and employers. The second case study extends this also to take seriously the task of incorporating Indigenous knowledge, serving remote communities in ways that secure improved educational outcomes and sustain remote and regional economic and social life.

We highlight these two examples of intentional responsiveness to communities and industry, each of which targets atypical student populations. Each offers promising paths towards a more diverse and accessible post-secondary education system, fit for purpose in a dynamic 21st century society and economy.

The Institute of Applied Technology – Digital

The Institute of Applied Technology – Digital (IAT-D), is a collaboration between foundation partners, TAFE NSW, the University of Technology Sydney, Macquarie University and Microsoft, located at Meadowbank in Sydney.

During 2020 the NSW Government was exploring the potential for TAFE Centres of Excellence to meet industry needs and skills shortages. This focus pivoted following publication in March 2021 of Gonski and Shergold's review of VET in NSW, that recommended the establishment of a NSW Institute of Applied Technology.¹¹ This would be an entirely new form of tertiary institution; a single sector institution with curriculum co-designed with industry that addresses emerging labour market needs by providing students with skills that lead directly to employment.

Behind the innovative partnership approach is a drive to design and deliver education and training which rapidly responds to meet industry demand, integrating university theoretical knowledge and VET practical training. Structure, content and mode of delivery are intended to be responsive to changes in student aspirations, industry demand and projected skills shortages in NSW.

As of early June 2023, IAT-D has completed two five-week teaching blocks at the outset of a four-year pilot subsidised by NSW Government with a commitment of \$108.5m to support operational and capital expenditure. A second IAT to provide training for the construction industry (IAT-C) is on track to open in Kingswood, Sydney later in the year.

¹¹ Peter Shergold and David Gonski, 'In the Same Sentence, Bringing Higher and Vocational Education Together' (NSW Government, March 2021) <https://education.nsw.gov.au/about-us/strategies-and-reports/our-reports-and-reviews/review-on-the-nsw-vocational-education-and-training-sector> last visited 25 June 2023.

Course delivery and pathways

The stackability of microcredentials at IAT-D presents a unique innovation through the focus on role-based pathways, instead of qualification or subject-based pathways. Each signature discipline clearly identifies several industry-specific roles that on completion of the pathway should provide learners with employment opportunities in areas experiencing skills shortages. The credentialing framework for role-based pathways resulted from a comprehensive mapping of skills-based and learning outcomes frameworks to enable articulation with University and TAFE courses.

It is an intentional aspect of course design that the pathway to employment is explicit, so learners have a clear understanding of where their learning is leading them, and that has significant potential to raise the status of the IAT-D offering. Course design is shaped by both knowledge and skills, by the question 'what do learners need to know how to do?', rather than 'what do learners need to know?' This 'role-based pedagogy' is central to the idea driving the IAT-D.

Ten signature disciplines have been identified through industry consultation, with the initial tranche of priority offerings being cyber security, big data, artificial intelligence, cloud technology and software development. The education offerings combine core technical skills with enterprise skills that promote skills transfer and career flexibility for graduates.

The key market segment for IAT-D microcredentials is currently learners typically aged in their 30s and 40s, engaged in full-time employment who are looking to upskill or reskill, but who don't have the capacity to commit to traditional longer university courses. Following identification of this key market segment, course offerings have been made available online in blended modes of delivery to allow flexibility for learners to schedule aspects of their study alongside existing commitments. Early indications drawn from student testimonials are that the learner response is positive.

The IAT-D learner journey is categorised into four stages along a progressive pathway, each allowing learners to exit on completion.

- Microskills; providing an opportunity get a taste of a new skill or discipline area.
- Microcredentials Learner Select; where learners tailor their own learning to their immediate skills needs. Commonly appealing to workers in the industry to develop career opportunities.
- Microcredentials Career Pathway; presenting sets of microcredentials that are aligned to industry-specific roles, which are designed both for new entrants into the industry, as well as workers looking to extend their skills base.
- Microcredentials Degree Program; providing opportunity for learners to follow a defined microcredential package to meet RPL requirements toward a degree program offered by one of the University partners. This is targeted at learners looking for an alternative pathway to gain a degree with deep industry connection.

Microskills offer a (free during the pilot) 5-hour introduction to disciplines of interest and provide aspiring learners with a gateway to a new subject without significant commitment. Over 15,000 students have enrolled in microskills courses in the first 6 months of operations at IAT-D. Early data indicates completion rates of over 75%, which is dramatically higher than sector norms of around 11% for free online course offerings.

A distinctive component is the development of stackable microcredentials that, while sitting outside the AQF, are aligned to the AQF taxonomy at levels 5 and 6. In addition, learning outcomes are clearly articulated and the volume of learning for each microcredential is clearly defined, Microcredentials are offered at foundation level (50 hours of learning), intermediate level (100 hours) and advanced level (150 hours). Typically, three or four microcredentials are stacked to achieve a standalone certificate that can be used for credit points if the learner elects to pursue the pathway in specified courses with partner universities.

Both UTS and Macquarie University recognise IAT-D microcredentials. The partnership with UTS and Macquarie demonstrates the possibility of a non self-accrediting body working with universities to develop innovative, accredited stackable microcredentials. The extensive level of commitment, engagement and willingness from all involved was essential to this being a possibility. The question then turns to the extent that the microcredentials can be recognised with other non-partner universities.

An important enabler of portability is commonality of language. IAT-D has adopted the language of 'learning outcomes' and 'volume of learning' to align microcredentials with the AQF taxonomy. As the AQF itself is reformed following the Noonan Review, it is possible that these concepts may evolve. The conceptual structure embedded in the IAT-D microcredentials role-based pedagogy is on point for this work.

Partnerships

Engaged and committed partners who are motivated to collaborate on working toward a shared mission have been essential to the successful development of IAT-D. Once identified, all partners were invited to start work on a clean slate, engendering trust and robust conversation about who, what and how to teach learners in an entirely new educational model. Although collaboration between universities in research is common, it should be noted that two universities from the same city collaborating authentically in the teaching space, and in the development of an alternative educational pathway is unusual. A further benefit has been to strengthen relationships between university partners and TAFE NSW.

Expectations of partners are explicit and transparent. Foundation partners acting in an advisory capacity for TAFE NSW prioritised a clear and consistent framework for the assessment of proposals and decision-making to ensure delivery.

Foundation industry partner Microsoft has contributed generously through high level technical and executive expertise in the development of IAT-D, without expectation of direct return on investment. Microsoft provides guidance on industry requirements in real time which enable deft curriculum adjustments or could lead to the co-creation of new units.

Microsoft's approach to its contribution has been key. Rather than relying solely on technical experts, Microsoft opted to send individuals with expertise in workforce development and capacity building. This deliberate choice provided a broader perspective and enhanced the partnership's potential for long term success. It is likely that the Microsoft brand also adds credibility to a new suite of progressive pathways at an innovative institution that is in the early stages of building reputation and status for its offerings.

Important to replicability, Microsoft is not limited by an exclusivity agreement. This leaves open the option for a partnership model with MS as industry partner for product development in other states and territories. Additionally, the IAT model is not limited to one industry partner per institution; three other companies (SAP, SAS, Salesforce) are also partnering at IAT-D, increasing the breadth of industry specialists involved.

These other industry partners have responsibility for co-design, co-innovation and co-delivery of the educational model. Another education partner, Prodigy Learning, provides expertise on future-focused curriculum, design of learning materials and credentialling programs.

Finally, the NSW Dep of Education and industry associations have led advocacy, networking and facilitated provision of Work Integrated Learning (WIL).

The collaborative partnership principles that guide decision-making comprise:

- co-design; eg, new microcredential development
- co-delivery; eg, masterclass delivered by industry leaders
- co-innovation; eg delivery solutions using latest technology
- co-location; eg, industry using campus space for networking & events, reciprocal rights to use industry-leading facilities and resources
- commercial support and advocacy; eg, facilitated introductions to leading construction industry companies, support for WIL and
- infrastructure and resources; eg, access to existing leading industry-led training platforms, supply of latest technology hardware to support immersive learning experiences

To translate these partnership principles into action has not been without challenge. Recruitment of industry partners to lead development and delivery of curriculum across other industry sectors presents

potential difficulties in terms of time commitment and return on investment. Partner universities also face the risk of undermining, or cannibalising, existing market share and may have concerns associated with protecting intellectual property.

Funding

The NSW Government invested \$225.5m to design and construct the two pilot institutes at Meadowbank and Kingswood and committed a further \$108.5m to support operational and capital expenditure over the four years of the pilot. Funding for the IAT-D extends to mid-2026 only, beyond which its future is in jeopardy, potentially undoing much of the progress that has been achieved to date, and rendering the IAT-D just another experiment in higher education and vocational education partnering with industry.

Microcredentials are currently a relatively high-cost offering for learners at IAT-D. Individual microcredential course fees align with current market rates of between \$1500 and \$4500, depending on the volume of learning for the particular microcredential. During the pilot phase learners benefit from heavily subsidised microcredential fees supported by the NSW Government, which reduce fees for foundation level to \$180 and intermediate level to \$360. Learners living outside NSW must pay the full fee.

The IAT-D is currently ineligible for funding from the Commonwealth Government's microcredentials pilot program, under which HE institutions can receive up to \$100,000 for the development and delivery of each microcredential. Under the same scheme the Government is currently testing the benefits of extending FEE-HELP to learners studying microcredentials, but under the pilot financial support is restricted to microcredentials offered by universities. This will exclude many innovative options and significant industry engagement the pilot seeks.

Equity and capacity

An express aim of IAT-D is to increase capacity in sectors of the IT industry where demand for skilled labour exists, and central to that mission is to stimulate interest among cohorts who haven't traditionally entered the tech sector. This ambition to improve equity and access to the tech industry is reflected in flexible modes of delivery at IAT-D that provide flexibility to learners.

Working in collaboration with Microsoft and related training provider MEGT, a Digital Skills Cadetship Program will provide opportunity for women to embark on a new career in IT. The cadetship is open to women returning to the workplace from an extended break, women from under-represented groups, and women transitioning from underemployed industries following COVID-19.

With intent to develop greater diversity in the cyber security workforce, IAT-D partner Macquarie University secured a \$2.35m Federal Government Cyber Security Skills Partnership grant and is supporting an initial cohort of 100 scholarships at the IAT-D during the pilot phase. Scholarships are available to women, Aboriginal people, neurodiverse people and people in regional areas.

Scalability

If the IAT-D model is to be successfully replicated at scale outside NSW, however, there are obstacles that would need to be overcome. The model is currently dependent on substantial financial support from the NSW Government, and collaboration between three NSW educational institutions that are state government institutes, facilitated by the NSW government.

In addition, the design model, based as it is on stacking microcredentials with careful attention to AQF concepts but outside the AQF, has allowed partners to remodel courses via codesign to address skills gaps identified by industry partners, unencumbered by regulatory constraints. Taking the IAT-D model to scale would require a commitment of funding for microcredentials on a more liberal basis than the current pilot. It would also need further thought about a national vision for the relationships between TAFE and university providers, their regulatory status (to approve pathways let alone courses) and a sustainable source of funding for such innovative collaborations.

In consultations with partners who have worked to establish this model, many possibilities are floated, including restructuring eligibility and scope for both the Commonwealth Grant Scheme (CGS) places and the Higher Education Loan Program (HELP) and also co-contributions from employers. These are obviously non-trivial discussions.

The strong point made by stakeholders interviewed is, however, that it is not surprising that the role-based pedagogy at the heart of the model, would challenge the neat (if outdated) distinction between skills and knowledge based pedagogy that sits at the heart of the current funding systems for VET and university.

To effectively implement and develop the IAT-D model for offering stackable microcredentials, the optional participation of universities highlights the unequal status and options open to collaborators. NSW TAFE had less options to achieve this innovation, lacking the ability to accredit its own courses and having to negotiate credit recognition on a case by case basis, with each university separately.

There is a risk that an innovative and dynamic offering such as IAT-D may be perceived as some threat by others with similar, perhaps less agile, products in the higher education and VET sectors. Without incentive to participate, sector acknowledgement of the need for regulatory flexibility may be met with resistance.

Consultations revealed universities may currently not recognise microcredentials as a threat to their traditional business model, no doubt in part related to the additional funding provided. Considering the appeal of stackable microcredentials to students and the interest shown by multinational industry players, universities that fail to embrace this trend may nonetheless find themselves falling behind.

Charles Darwin University

Charles Darwin University (CDU) is a dual-sector university, headquartered in Darwin, that also operates eight satellite campuses in regional and remote Northern Territory locations, with several campuses and centres in other interstate major cities. CDU has the one of the lowest number of university students in Australia, below 15,000, compared to Monash University (Australia's largest) with over 64,000 students. This makes CDU an outlier even among regional institutions. In addition, over 30% of CDU students are Indigenous Australians. There are a further 7,500 VET students at CDU.

CDU is a good comparator to the IAT-D because it is a single institution with both VET and higher education offers, not requiring the same level of coordination to cooperate between the two kinds of business as IAT-D. It is also serving a very different part of Australia, the Australia of deserts, tropics and traditional culture, as well as the common constituents in industry and economy, health and education. On the other hand, CDU and IAT-D share an agenda of creating real pathways for learners across VET and higher education, and of serving learning needs in communities and economies that are not as invested in traditional qualifications.

We selected CDU in order to examine the capacity of a place-based dual sector provider to meet the skills needs of industry and communities, including models for the delivery of education, training, and credentialing in diverse and remote communities. CDU's position as the major institution of research and education in the Northern Territory makes its political and social operating environment unique too; its positioning in regard to Australian energy, security, minerals, health, education and land management is far more important than its size as an educational institution would otherwise suggest.

These characteristics give CDU a very different mission and profile to most Australian universities, some of which make it difficult for CDU to operate competitively. It has fewer resources than other major Australian universities, it is spread over a wider geographic region, and with more complex and challenging community it seeks to support through both tertiary education and research.

Course delivery and pathways

Particularly for remote Indigenous communities, education needs to be delivered on the ground, with flexible arrangements that accommodate family, community, and cultural obligations. This means that staff will often be required to travel to meet students and deliver education on country. Education in settings like this is necessarily bespoke.

Through extensive experience CDU staff have found that most traditional course structure are far too long for students who live in remote communities with complex obligations and social arrangements. Block delivery of education and training in small components, sequentially building up competencies and units, tends to result in much better outcomes for these students. The current standard involves delivery

of two-week blocks at remote and regional locations. The university has developed close relationships with private Registered Training Organisations (RTOs) that employ staff able to teach into these units. This allows further flexibility in staffing and delivery in these non-traditional teaching environments.

Creating a pedagogical environment that encourages success in this way often results in the continuation of studies for students from remote Indigenous communities, who are often more willing and eager to travel to major campuses to continue their studies once a pattern of success has been established.

Short courses offer solutions to high attrition rates in Indigenous community education, particularly through microcredentials. These also act to encourage people to commit to further education. The initial engagement of short courses across remote locations encourages attendance, which can lead to interest in the longer or full qualification enabling travel and accommodation for training on campus. This is an important facet of educational equity and flexibility to meet diverse needs which are sometimes overlooked in mainstream regulation and funding. CDU has done this successfully in delivering to remote locations, bringing larger cohorts back to centres such as the town of Katherine, for example.

CDU leaders we spoke to informed us that an important factor for ensuring the success of remote education to Indigenous communities are initiatives such as the employment of Professional Learning Leaders (PLLs). These are adult learning experts who come to know communities deeply. Their presence and expertise allows for community members to effectively navigate a system that initially strikes them as foreign and complex, supporting higher success rates and further enrolment. PLLs act as advocates for cohorts of students and communities as a whole, which releases individuals from the burden of all trying to navigate community matters and education separately.

A further factor impacting CDU's ability to deliver lies in the limited capability to transfer teaching between higher education and VET educators. The existent regulatory system allows for VET educators to teach into university courses where desired but does not allow for university educators to teach into VET without acquiring the relevant accreditation. There is a sense that the university is losing out by being unable to utilise staff from higher education and research as subject matter experts in an easier and freer manner in VET. There are some workload trade-offs involved here. Some higher ed staff may be unwilling to work in VET, but there is a real advantage in being able to work flexibly across both sectors of the university for staff, especially as this can be used to justify staff retention if and when teaching requirements lesson across the university level courses.

Qualifications/ credit/ accreditation

Because of its location at the nexus of so many diverse stakeholders and its status as a dual-sector university, CDU has a broad array of qualification and accreditation goals and outcomes. It has impressive achievements in many areas of traditional higher education. It is one of Australia's most multicultural universities and is regarded as highly desirable for international students in the region, both for the quality of its educational offerings and because of its location. It is seen as a serious career building university, with very high employment success for both undergraduate and postgraduate students.

As a strategic decision, the higher education model at CDU entails that university course offering must have an inbuilt pathway from its VET qualifications. This locks in advantages for VET students in terms of further educational opportunities and career development in a way that other VET institutions do not. There are currently 88 units of competency delivered by the TAFE, across diverse fields including nursing, carbon capture and storage, drought management, and allied health, all of which articulate into university courses as electives.

CDU's microcredential offerings add another layer to the education and training available at the university and align well with the previously described shorter and smaller offerings that tend to work well in complex, non-traditional, and remote learning environments. CDU runs three distinct types of microcredentials.

- A microcredential that is not eligible for academic credit and has no specific relationship to current AQF qualifications.
- A microcredential that is eligible for academic credit. These units will embed select CDU Graduate Attributes and are aligned with a specific AQF level. They contain one or more summative

assessments aligned to learning outcome/s. These units may be taken as part of an accredited course of study when stacked with other microcredential units or provide academic credit towards an accredited course. This may be at either an undergraduate or postgraduate level, unless specified otherwise in specific course rules. These units may be worth between 1 and 5 credit points.

- A microcredential where assessment evidence can be used as the basis of an RPL application for VET and/or HE unit/s. These units may be accredited or unaccredited by Faculties in terms of recognition of prior learning. These units are aligned to CDU Graduate Attributes and to a specific AQF level. They will directly address a field of study, contain Learning Outcomes, and be assessed. These units may be worth between 1 and 5 credit points.¹²

In addition, CDU's diploma and graduate diploma in indigenous research methodologies offer microcredentials that count towards course completion. A lot of Yolŋu students have come through microcredentials in this area and then transferred into the degree, with a high rate of success.

Place-based initiatives

CDU is taking this incorporation and recognition of indigenous knowledge into its curriculum seriously. CDU is in the process of setting up a PhD in Indigenous knowledge. Traditional higher education pathways, qualifications, and methods of assessment do not easily translate into Indigenous knowledge qualifications that are recognised by community. There is great difficulty in standardising this in a way that overlaps with traditional accreditation.

A clear-cut solution has not yet been reached, but it is as likely as from any other route to come from place-based university settings like CDU, with robust connections to Indigenous communities and country. Community elders decide what knowledge is in these settings. Yolŋu knowledge is related to place and time and is immutable.

There is an epistemological challenge here that is relevant to the entire university sector's commitment to incorporating Indigenous knowledge into curricula. CDU leadership has spoken in detail about some of the challenges that arise in this area; "How do you talk about midwifery from a Yolŋu perspective in a framework that actually respects 'secret knowledge' for women's business that cannot be taught to men?"

CDU has developed a bespoke process that is very intensive but has achieved success in navigating these cultural challenges. CDU interviewees emphasised that extra scaffolding money budgeted for these programs makes all the difference. There is a huge challenge for scaling and operating across the broader sector, especially in settings that do not have the strong place-based connections of CDU.

Senior CDU leaders emphasised this investment across a range of core disciplines, each of which required bespoke design to translate standard curriculum other institutions are providing at large scale, to the particular requirements of the NT. These include 'scaffolding' additional training for teachers to translate their training to remote Australia, the particularities of research and education for people who will work in agriculture in the north, or for mining or in renewable energy.

Funding and scalability

This paper does not attempt to specifically review funding policy or adequacy. Nevertheless, it is notable that, as a dual sector institution, CDU is funded through multiple layers of government programs for both VET and higher education at both the Commonwealth and state level, through mainstream funding as well as various equity programs such as Higher Education Participation Program (HEPP) and regional and remote loadings.

Indigenous Australian students are also particularly dependent on Indigenous Student Success Program (ISSP) and the Away from Base program (AWB), through the National Indigenous Australians Agency (NIAA). And CDU is especially dependent on these sources, which are more marginal in other institutions.

VET funding in the NT is administered by NT Department of Education, which has operated on a

¹² Charles Darwin University, 'Microcredentials Policy and Procedures' 7 December 2022 <https://policies.cdu.edu.au/view-current.php?id=182>.

purchaser provider model setting the price of delivery for each course, without necessarily accounting for differences in costs. This also disadvantages CDU in its delivery to remote locations and communities. In recent times we understand more funding has been available for short courses which helps CDU.

Each program has its own criteria and reporting requirements, many of which overlap with other Commonwealth Government assistance through Centrelink. Piecing together these requirements to meet student needs is complex for students and institutions alike, particularly as it relates to remote delivery. The 2021 evaluation of the Away from Base program noted that some providers bear a financial risk resulting in a shortfall in funding where remote students make up a disproportionate proportion of the total population.

The net result is that funding is inadequate for institutions such as CDU which is both small, which services a large cohort of remote students and is almost always more complex to administer effectively and efficiently in order to align funding with effective delivery models. The Batchelor Institute of Indigenous Tertiary Education is an even starker example of this complexity outweighing the scale of program it is meant to support.

CDU has fewer opportunities to cross-subsidise its research and educational offerings by supplementing its income from business schools or increasing international student enrolments. Additional support is merited in order to strengthen the university's capacity to deliver to a diverse, often remote community, and to do the hard work needed in codifying and recognising Indigenous knowledge and Indigenous knowledge holders, reflecting the multiple needs which go beyond student support to infrastructure and pedagogical leadership.

CDU leaders are very pragmatic and, in interviews, are singularly focussed on practicality and effectiveness. There is a case for Commonwealth agencies to collaborate with each other, and with state and territory governments, first to simplify and then to enhance funding for such ambitious and outlier difficult terrains for educational innovation.

Key findings: New and important enablers of innovation in current post-secondary education

We selected two very different educational innovation examples for this paper. One an ambitious collaboration serving new industry in Sydney and the other a dual sector institution serving diverse economy and society, including ancient knowledge systems in the north of Australia. On the other hand, both have marshalled innovative approaches to mobilise collaboration between VET and higher education and novel use of new credentials to achieve their objectives.

It is important to highlight the common challenges they have faced, as they mobilise these innovative pathways. That can then point to practical reforms that might facilitate such positive innovation going to scale in the Australian tertiary education system. As we have noted, in this paper, we are more focussed on specific and achievable change than grand system redesign.

Microcredentials – new pathways to jobs and qualifications

Developing and delivering traditional qualifications in both HE and VET can be burdensome, time consuming and expensive. It also often delivers outcomes that fail to align with industry need.¹³ Microcredentials offer an alternative to the traditional avenue of AQF qualification attainment that can be of benefit to people who have been underserved by traditional degree programs.¹⁴ For instance, microcredentials can offer a solution to the high attrition rates in Indigenous community education. CDU

¹³Peter Noonan, 'Review of the Australian Qualifications Framework Final Report 2019', Text (Department of Education, Skills and Employment, 2019), <https://www.dese.gov.au/higher-education-reviews-andconsultations/resources/review-australian-qualifications-framework-final-report-2019>.

¹⁴Lindsay Daugherty et al., *Stackable Credential Pipelines and Equity for Low-Income Individuals: Evidence from Colorado and Ohio* (Santa Monica, Calif.: RAND, 2023).

offers a useful example of this. IAT-D is also showing a possible way to engage established workers to upskill effectively and in ways they find achievable.

Microcredentials can also provide people with early job opportunities and the ability to stack credentials over time, expanding their career opportunities in various industries.¹⁵ In both case studies, this has proven possible but very challenging, with long lead times. Even within a dual sector institution, with united executive direction, the amount of work was still formidable, attracting much comment from informants. The asymmetry of VET teachers being able to teach into higher education but not the reverse exacerbated this. Nonetheless, a clear corporate objective has achieved significant opportunities in pathway creation, used in practice by disadvantaged learners to open up real higher education opportunities.

At IAT-D these pathways had to be negotiated across three different education institutions and overcome some conflicts of interest within the universities. Nonetheless, with concerted effort, both technical and relational, this has been achieved. In both cases, strategic decisions to reference core AQF concepts such as volume of learning has facilitated success and in both this has been achieved without compromising the attractiveness of the credential to learners, communities and employers.

Microcredentials were successful in our two case studies, attracting Indigenous learners to succeed where otherwise post school education has failed them. Microcredentials were also co-created with industry, not just the founding but other partners in the IAT-D case study, to meet immediate and important workforce needs in a vital industry sector. Their development in both cases illustrate the strength of a qualification that resonates with the Noonan AQF reforms, towards combining skills and knowledge frameworks at every level. They also create pathways of credit recognition across sectors, although each case study pointed to the challenge of actually achieving these pathways, especially at any scale.

Microcredentials - regulatory and funding questions

Microcredentials gained extra attention as both industry and universities considered how to kickstart their businesses in the face of the impact of COVID19. This led to the commissioning of a national framework for microcredentials by the Commonwealth, specifying purposes, principles and standards.¹⁶ The Commonwealth also commissioned the University Admissions Centre to develop a MicroCredSeeker 'marketplace', listing microcredentials on line, by industry sector, for learners and employers.¹⁷

Recently the new Commonwealth Government has built on this development by announcing a microcredential funding program, albeit modifying some elements of the standards applying as eligibility criteria. Under the Microcredentials Pilot, the Federal Government is currently funding Table A universities to develop microcredentials that have a clear pathway into an AQF qualification.¹⁸ This is a positive contribution from the government, yet credit recognition and portability of micro credentials remain a complex and uncertain process for VET and other higher education providers. The narrowness of the Pilot creates problems for its goal of innovation.

The policy framework and pilot program are a good start in government embracing this opportunity for innovation. We turn now to consider further steps needed and the best direction to accelerate this work.

The first is the question of accrediting authority. The advantage demonstrated by CDU's ability as a single, dual-sector institution to pursue recognition for learning from all its VET courses to its higher education courses is significant. It is obviously a significant decision to extend self-accrediting authority to new institutions under the TEQSA enabling legislation. The IAT-D case study makes a strong case for the TAFE non-university higher education providers to have this authority, in order to compete – and

¹⁵ Ibid.

¹⁶ Department of Education Skills and Employment, "National Microcredentials Framework" (Department of Education Skills and Employment, November 2021). <https://www.education.gov.au/higher-education-publications/resources/national-microcredentials-framework>

¹⁷ Department of Education and Universities Admissions Centre, "Microcred Seeker," n.d., <https://www.microcredseeker.edu.au/explore?industries=Health+Care+%26+Social+Assistance>.

¹⁸ Department of Education, "Microcredentials Pilot in Higher Education Factsheet" (Department of Education, February 2, 2023), <https://www.education.gov.au/microcredentials-pilot-higher-education/resources/microcredentials-pilot-higher-education-factsheet>.

collaborate – on an equal footing with universities. This would apply equally to high quality non-university higher education providers.

There is a related argument, flowing from the same observations regarding the state government responsibility, age and standing of TAFEs for self-accrediting status regarding their VET programs. This argument comes into relief if provider category regulation in higher education were to be amended, consistent with the Coaldrake Review, to establish a high-quality National Institute of Higher Education category for which TAFEs would be strong candidates.

In this paper, however, we are arguing on the basis of our analysis of the advances achieved and barriers facing the IAT-D to date, for TAFE higher education providers to be given self-accrediting status for their microcredentials.

The second is the question of mutual recognition of microcredentials. A mechanism is required that both allows and facilitates other higher education providers following course and offering recognition into their equivalent courses. Universities will have positive incentives to provide this recognition, with credentials that are sought by industry attracting students. However, they may also face conflicts of interest with other courses they are considering or developing. At the least mutual recognition is an important avenue to stimulate scale and facilitate important progress for national employers.

The third is the question of funding. There are significant unfunded costs in both case studies.

For the IAT-D the NSW Government has committed significant funding but as noted earlier, this is time-limited, with costs going beyond course delivery. There is some urgency to both the State and the Commonwealth governments addressing this time limit if the success this new model of delivery demonstrates to date is to be sustained and developed, rather than consigned once again to the annals of cross-sectoral experimentation.

At CDU, references were made by key leaders to several unfunded costs associated with course development taking account especially of the unique social geography the university serves. Outside the NSW government funding and the new Microcredentials Pilot, there is not a source or channel for education program funding for microcredentials. There are a number of possibilities.

- It would be possible to argue for a restructuring of the Commonwealth Grant Scheme (CGS) or the Higher Education Loan Program (HELP) to fund microcredentials. These are non-trivial decisions and possible distortions of either student or institutional decision making would need to be considered carefully. The experience of the VET FEE HELP program, which set the VET sector back despite substantial expenditure, is germane here. The exclusion of the VET sector is, as the IAT-D case makes clear, problematic. Allowing HELP subsidised loans for VET providers or an as yet relatively new product, with unknown income gain for all students, is on the other hand inherently risky.
- An alternative would be to establish a co-funded mechanism, with Commonwealth education funding, possibly via a grant pool, matched by some combination of industry, state government or from other Commonwealth departments with an interest in the workforces needed in the industries they work with. The contribution by Microsoft in the IAT-D example, might support this notion.

The danger with such devices is that they can be high risk for failure to raise the contributions. Commonwealth line departments and state / territory agencies will only be able to contribute with specific support, per proposal, from their governments. History suggests that is unlikely for an education program. Similarly, industry contributions will be partial, and history suggests individual enterprises will be reticent to contribute to developments that advantage whole sectors, ie both them and their competitors. There might be some merit, however, in fee structures that employers can contribute for their employees.

- The third possibility is that, in addition to whatever reform of the main structures comes out of the Accord process, there is a time limited but significant investment in a separate pool to support the growth of microcredentials as an innovation that can provide the evidence base for further funding decisions once more is known of how these innovative credentials will sit within the higher education and VET systems.

Questions we have addressed here go to accrediting authority, the status of non-university higher education providers, including TAFE higher education providers, credit recognition and transfer and

funding. There is a fundamental question that shapes how the Accord Panel and Government might approach these. It might be tempting to argue for all of the regulatory, policy and funding questions to be worked out as a priority, to maintain the integrity of the overall system and to determine the place of microcredentials within it.

However, this will push back establishing a basis on which to scale a timely and important development, one which has arguably attained its utility and innovative appeal from avoiding the somewhat turgid regulatory and policy structures we have developed for the rest of the tertiary education system. It is also arguable that we do not yet know enough about how microcredentials will work at scale, in order to answer the questions necessary to do the policy work that would precede all the decisions needed.

For these reasons we argue that Government should take a lead in supporting the growth in the use of microcredentials, building off the Framework and Pilot. This would entail broadening support for their delivery from Table A universities, accrediting TAFE and other high quality non-university higher education providers to self-accredit microcredentials against the Framework standards, and stressing credit recognition and transfer.

A guaranteed five-year funding stream would inject growth into the tertiary education system, with a product sought by industry, communities and learners, allowing assessment to be made in time to commence the regulatory policy work informed with more knowledge of the microcredential market and take up, before the five-year program ends. This would allow assessment of progress, corrective of unforeseen risks and sufficient certainty by, say the end of 2024, to allow early movers (such as the IAT-D and its sponsors) certainty before the first tranches of early investment expire.

Support for new institutional form - place-based universities and new intersectoral institutions

Both of the two case studies have involved the use of microcredentials. They also share other similar innovation features and key differences. These are also worth exploring. Both case studies are designed to serve particular markets. Both intentionally target learners who would not necessarily access or thrive with more traditional university / VET offers. Both seek to engage employers directly in the success of these students and the pathways created. There are other universities that share these ambitions. The University of Tasmania has developed partnerships to focus on educationally underprivileged areas in the north and northwest of the state. The University of Melbourne has invested in partnerships in Goulburn Valley in northern Victoria and also in Northeast Arnhem Land.

It is useful to draw out the other features of the two case studies that mark their differences, further to identify key success factors, especially where these are supported or inhibited by current policy settings.

The first goes to the focus on place. This is a defining feature of the CDU model. CDU has invested, putting senior staff and infrastructure in place – in the regions of the NT. There is for example, an Associate Vice Chancellor placed, with corporate resources, in Nhulunbuy in Northeast Arnhem Land. Many of the educational initiatives described in this paper are specific to, designed with and for stakeholders in particular regions. These are regions that have highly variable industry and employment markets. Even the remote areas served by CDU, or the disadvantaged areas of Victoria or Tasmania targeted by the University of Melbourne or the University of Tasmania, have their own industries and employment. They tend, however, to have been inaccessible to educationally disadvantaged locals, requiring very careful educational design and delivery to gain traction in those areas.

This is a significant part of the cost CDU senior leaders identified in their presentation of challenges they face to mount the programming they know is needed in the different regions CDU serves. Without this significant investment and the work, over decades now, to develop textured relationships that are respectful of regional differences across the NT, they would not succeed. CDU is not a large university or TAFE and this is a substantive cost, albeit identified as a critical success factor. Different universities with different sizes and balance sheets can absorb the costs of such bespoke responses to support innovation in disadvantaged regions to different extents. It is clearly a real pressure in CDU's work.

The second issue is governance. In this CDU has an advantage, both over IAT-D and over many other partnership-based innovation models. It is a unitary, albeit dual sector, entity. It has a single Council and executive and has been able to make clear decisions to invest, for example in the work to create pathways for all VET courses toward higher education credit. It is also a Table A higher education provider, so it has the advantage of self-accrediting status.

Following Shergold and Gonski, the NSW government committed its funding not only to develop a new course program, but embracing the notion that the institution would be a new kind of tertiary education providers, requiring consideration of permanent and mainstream institutional funding and student support. As explained in the summary of the two previous papers by the authors of this paper, the higher education category standards were reviewed under the previous government and the non-university higher education provider categories modified. There are now Institutes of Higher Education and University Colleges, a compromise by the previous government of the recommendations of the review of the categories. This is unfinished business.

The two case studies developed in this paper speak to a series of the issues we raised about the unfinished policy work regarding non-university higher education providers. We pointed out that even the post Coaldrake Report category standards still enshrine a set of anticompetitive advantages for universities vis a vis non-university higher education providers. One example is the levying of a 20% loading on the HELP debt of students who choose a degree from a non-university higher education providers. There are other advantages in the availability of various kinds of funding and the automatic association of university status with self-accrediting status. The retention of the term University College, even with improved criteria, still mislabel the ideal of a high status, self-accrediting category for higher education providers that do not aspire to be universities.

One of the informants interviewed for the relevant paper was the former President of the only non-university to transition to full university status under the current regulatory regime. The biggest difference in the 20-year long campaign to achieve equality, he reported, was the achievement of self-accrediting status, achieved finally, a long way into the process. The point was also made by the leader of a regional university (not CDU) that the requirement to perform at world standard in three broad categories of research was also a major and costly problem, especially with the anticipation that this will increase to five broad categories. The funds required to achieve that goal would allow of much greater impact in regionally salient research and innovative teaching. There is a strong case for this funding to be available for targeted regional and social inclusion objectives directly, as a component of the higher education and VET funding systems.

Our point in those papers was that the advantages of being a university militate against consideration of any alternative. The two case studies in this paper both reinforce that point but also suggest why the education system as a whole, and its beneficiaries in the community and economy, needs more freedom to diversify. The then NSW Government did not specify what kind of institution it had in mind for the IAT-D, in relation to the categories in the higher education category standards. It is likely something like the National Institute of Higher Education (which became the University College category) only with a focus on Technical Education would apply. Thus, a dual sector technical education college, also a self-accrediting dual sector institution.

The current resolution of the higher education provider category standards is ambiguous. In substance, the recommendation Professor Coaldrake made regarding the creation of the National Institutes category are included in the retained title University College. University College is understood to have been retained because of the status attached to the term university, sought by a number of the non-university higher education providers. Our judgment is that this is precisely why the category should be renamed, to encourage a deliberately different status, that of the excellent higher education provider focussed on excellent education and community engagement. This would be much clearer, encourage exactly the kind of innovation represented by the two case studies in this paper, and provide a sound policy basis for granting self-accrediting status to a wider group of education providers who will be oriented to exactly the sort of innovative educational offerings illustrated in these to cases.

Recommendations to Accord panel

1. Government should continue to fund microcredentials as an essential innovation to the current structure of qualifications in VET and higher education, with potential to respond to the express priorities of both industry and learners, not just in this immediate period impacted by the COVID pandemic but also going forward responding to identified inflexibilities in the tertiary education system.
2. In particular, the current funding program should be extended, as a deliberate and significant component of growth in higher education, noting the Accord Panel will recommend systemic reform to achieve sustainable growth to the system overall. We recommend an extended grants program of at least five years, with certainty and significant growth over the period, to allow the creation of a significant impact in both tertiary education and for communities and industry. We are not recommending revision of the CGS or HELP programs to provide this funding at this stage.
3. Consistent with our earlier paper which supported the Coaldrake Review of Higher Education Provider Category Standards recommendation for a National Institute category for non-university higher education providers as a high-status provider category, rather than a university in waiting, we would recommend extending eligibility for the program to such a group of non-university higher education providers. This should include granting self-accreditation status to those institutes.
4. In the short term, non-university higher education providers, including VET providers who also provide higher education qualifications, should be eligible for the microcredentials program and, if accepted, be given self-accreditation status for their higher education offerings and their microcredentials. This should include TAFE higher education providers in the first instance
5. A requirement for participation in the microcredential funding program should be preparedness to recognise and grant credit recognition for approved microcredentials funded through the program and delivered in other providers. The aim here is to advantage learners and industry by maximising portability and uptake and reduce the amount of case by case, unit by unit, credit assessment. The aim is to create a microcredential ecosystem, funded through a grant program that achieves real presence and impact over five years, prior to assessment of any place for it within the then AQF qualifications funding systems.
6. The Commonwealth government should fund place based initiatives targeting education participation and effective pathways to further study and labour market for disadvantaged learners, and advancing real economy employment in those areas.. This could be through a specific time-limited program, loadings in the CGS, grant programs or some price regulation authorization process allowing HELP loan loadings. It could also include a specific grant funding program, again avoiding the complexity of calculating and targeting adjustments to CGS and HELP.
7. Finally, having examined the IAT-D project and its achievements and noting its dependence on one-off NSW funding, we recommend (as per recommendation 4) that it be included for eligibility purposes in the Commonwealth microcredentials program in the first instance, with discussion between the Commonwealth and NSW government regarding funding and regulation learnings and options going forward, given current NSW funding ends at 30 June, 2026.