

A chance to be bold and ambitious: make apprenticeships the lynchpin to a better integrated tertiary education sector

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Summary Overview

The latest federal government budget has put the spotlight firmly on apprenticeships and traineeships through the announcement of the Skilling Australians Fund.ⁱ This fund, in the order of \$1.5 billion over four years, 'when matched with funding from the States, will support up to 300 000 more apprentices, trainees, and higher level skilled Australians over the next four years'.ⁱⁱ The Fund will be targeted at 'priority occupations and growth industries. These include but are not limited to key industries right across Australia, like tourism and hospitality, health and ageing, agriculture, engineering, manufacturing, building and construction, and the digital technologies'.ⁱⁱⁱ

A further \$60 million is proposed for Industry Specialist Mentoring for Australian Apprentices.^{iv} The program aims to increase retention among apprentices, particularly in their first two years, and to support the supply of skilled workers in industries undergoing structural change.

These budget announcements herald an opportunity for re-invigoration of the system. In willing the nation to best benefit from this opportunity, this paper highlights pertinent issues from current and past apprenticeship schemes.

The caution to be drawn from the recent past is that there is already significant public investment in apprentices and trainees by way of Commonwealth, state and territory inputs, plus industry and employer investment. This combined system investment is in funds and incentives; advice; support and networks; training; systems administration; employment and supervision.

Despite this collective effort, national performance data as measured by commencements, 'in-training' and completions show a system in malaise, even with sharpened policy and investment to rectify identified issues. If apprenticeship completion rates can be enhanced the new funds will yield a greater return on a significant public and private investment. This will require all parties, including governments, industry, employers and training organisations, to contribute to this effort.

It would be far better if the budget announcement is used as an opportunity to make agreed changes that will deliver a far more enticing opportunity to young Australians and higher quality apprenticeships and traineeships to better meet the skill needs of Australia's employers. It's not just numbers — it's as much about new opportunity and higher quality and performance standards.

To stimulate thinking about the future, the paper concludes by looking to future bolder and more ambitious opportunities, including ones related to announcements in the Budget's Higher Education Reform Package^v and the nation's innovation and science agenda. There is potential for apprenticeships to become the lynchpin in a better integrated tertiary education sector that delivers work-ready and innovative graduates.

Background to the New Proposed Fund

The Skilling Australians Fund is to be funded by increased levies on specified subclass visas, with the levies dependent on company turnover.^{vi} The levy is estimated to raise \$1.5 billion over the forward estimates with a ‘kick start’ injection of some \$261 million in 2017–18, in addition to the estimated \$90 million raised by the levy in the first year. ‘States will need to bid for project funding with proposals that align with the priorities and criteria set by the Commonwealth. The Commonwealth will only make payments once the states have achieved agreed deliverables. States will also need to match Commonwealth funding’.^{vii}

The announcement has been mostly welcomed by groups that have an interest in training including industry^{viii} (although it has concerns about the levy impact) and peak training bodies.^{ix} Additional policy specifics are anticipated as they are considered by governments in due course.

Unlike the National Partnership for Skills Reform, which the Skilling Australians Fund is replacing, this new fund is intended as ‘enduring’ because, like the apprentice levy in the UK, it is revenue raised ongoing from employers. The difference is the UK revenue is a tax based on company turnover^x, whereas in Australia it is a levy on businesses that employ foreign workers on certain skilled visas. In both cases, industry and employers have a close interest and will seek to influence^{xi} how such funds are best used to ensure a meaningful return. It will only emerge over time whether the revenues modelled from such levies eventuate. Nor is it clear which businesses/institutions (such as universities as they may source labour from overseas) will pay for such visa subclasses and which will gain from the fund’s operation.

The Department of the Treasury is to be the lead entity for the Skilling Australians Fund (~\$350 million per annum)^{xii}. The Department of Treasury will hold the appropriations of the fund while the Department of Education and Training will manage it. The latter administers present policy and outlays including the Australian Apprenticeships Incentives Program and the Australian Apprenticeship Support Network (table 1), as well as other programs such as the Apprenticeship ‘alternative delivery’ pilot projects.^{xiii}

Table 1 Selected program expenses 2.8 building skills and capability¹

	2016-17 Estimated Actual \$'000	2017-18 Budget \$'000	2018-19 Forward estimate \$'000	2019-20 Forward estimate \$'000	2020-21 Forward estimate \$'000
Sub-program 2.8.2: Skills Development					
Australian Apprenticeship Support Network	169 092	189 473	189 447	189 447	189 447
Australian Apprenticeships Incentives Program	394 945	392 083	392 083	392 083	392 083
Job Ready Program – Trades	4634	4634	4634	4634	4634
Recognition Australia					
Special Appropriations:					
<i>Trade Support Loans Act 2014</i>					
Trade Support Loans	64 680	65 327	65 981	66 640	67 306

1 Extract <<https://docs.education.gov.au/documents/education-and-training-portfolio-budget-statements-2017-18>> p.66.

The national apprentice system is constitutionally and operationally the responsibility of the states and territories,^{xiv} working together with the significant Commonwealth support (table 1). This means the states and territories also make large commitments to apprentices and trainees through their training subsidies, and various jurisdictional support policies such as payroll tax or work-cover rebates or remissions. Jurisdictions have strong and active policy reform interests in apprenticeships as evidenced by recent NSW^{xv} and Queensland^{xvi} statements. Such statements reinforce actions needed to strongly

raise the profile of apprentices in schools and career advice, increase pre-apprenticeships and better target incentives. There are equally strong reform interests held by peak industry bodies.^{xvii}

Present and the Past

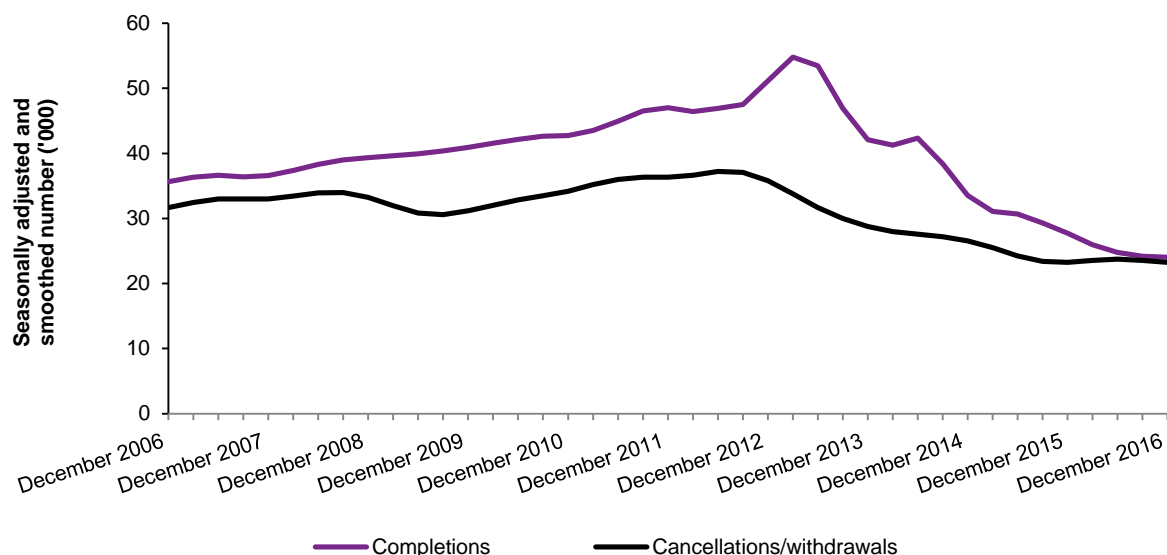
The backdrop to this budget announcement is a worrying decline in the apprenticeship and traineeship system, reaching its lowest numbers for more than 10 years. The latest December 2016 quarter shows continuing system declines.^{xviii} NCVER has recently documented twenty year trends in the rise and fall in apprentice and trainee numbers and the associated policy history over the period 1996 to 2016.^{xix}

Trades versus non-trade numbers

While the numbers of trade apprentices and trainees have been relatively more stable over time, non-trades apprentices and trainee numbers have been volatile and have fallen dramatically since 2012. This decline correlates closely with reductions in Australian Apprentice employer incentives. Total apprentices and trainees 'in training' peaked at some 515 000 in June 2012, of which some 216 000 were classified as Technicians and Trade workers (ANZSCO group 3). 'In training' numbers as at 31 December 2016 show some 265 000 people of which some 167 000 are Technicians and Trade workers (ANZSCO group 3).

The system may be thought of as a 'pipeline' with commencements, those 'in training' and those completing or alternatively withdrawing/cancelling. The duration for non-trades is typically half or less than that of trades. Figure 1 shows (on a smoothed and seasonally adjusted basis) the combined numbers of apprentices and trainees 'completing' versus numbers 'withdrawing/cancelling' counted on a quarter-by-quarter basis.

Figure 1 Combined apprentices and trainees - completions and cancellations/withdrawals 2006-2016



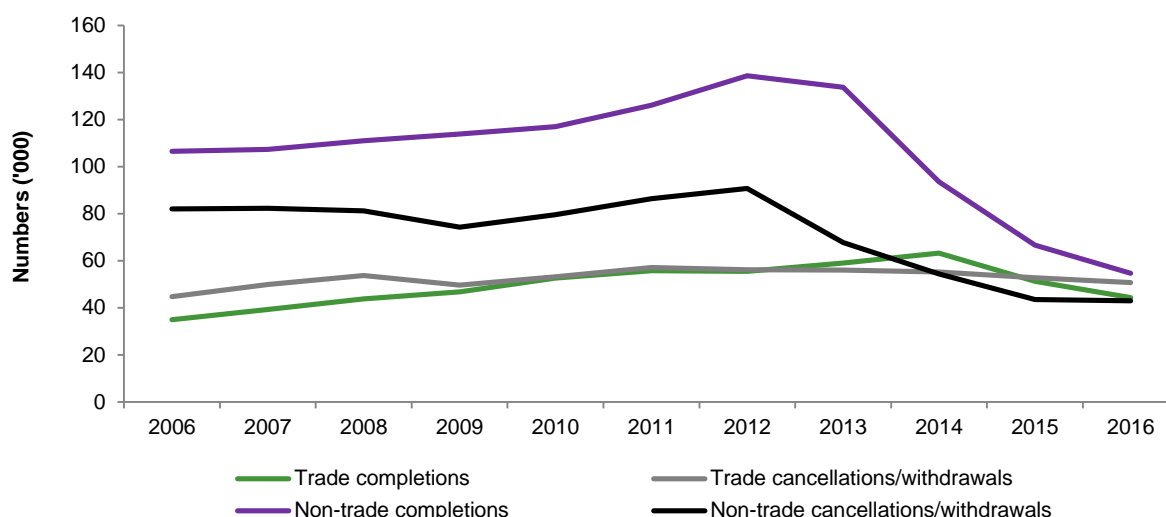
Source: National Apprenticeship and Trainee Collection, March 2017 estimates, unpublished.

Figure 1 deliberately focusses only on numbers of completions versus cancellations/withdrawals. It demonstrates their recent convergence with nearly the same numbers for most recent quarters including

the latest data (up to December 2016). The message is stark, pointing to fewer completions amidst ongoing poor retention.

The split between trades and non-trades occupations is shown in figure 2 presented without seasonal adjustment or smoothing, with this shown by year to remove within quarter volatility.¹

Figure 2 Trade / Non-Trade (by ANZSCO) completions and cancellations/withdrawals 2006-2016



Source: National Apprenticeship and Trainee Collection, March 2017 estimates, unpublished.

Figure 2 shows the 10-year trend of cancellations/withdrawals compared with that of completions. Part of the explanation is that in 2012, there were far higher numbers of non-trades, that is, traineeships relative to trades, with the former typically of shorter duration than trades. By 2016 this had changed because of the steep decline in numbers of non-trades since 2012. Trade apprenticeships are of longer duration and typically have greater rates of attrition^{xx} so the number of completions compared with cancellations and withdrawals are now closely aligned. Indeed, trade completions for the period shown has only exceeded numbers of trade cancellations/withdrawals in the period 2013 and 2014. Overall, the system is in decline and remains wasteful.^{xxi} Individuals are failing to complete their skills training and as consequence public returns on government investment remain sub-optimal. The Industry Specialist Mentoring for Australian Apprentices fund represents a further effort to address this.

Some geographic trends

There are differences across states and territories. Most recent seasonally adjusted and smoothed data show that, within the quarter ending 31 December 2016,² there were more combined apprentice and trainee completions than cancellations and withdrawals in Queensland, South Australia, Western Australia and Tasmania. Conversely in New South Wales, Victoria, the Australian Capital Territory and Northern Territory the numbers of cancellations and withdrawals were equal to or greater than numbers of completions.

The likely dominant impact appears to reflect differing and fluctuating labour market conditions across the jurisdictions, both in terms of lack of job openings for apprentices in a 'softer' market as well as

1 Numbers of cancellations/withdrawals for most recent 7 quarters and numbers of completions for most recent 3 quarters are estimates and may be adjusted.

2 Estimates and may be adjusted.

greater and better job alternatives for apprentices in a more buoyant market. Policies may play a contributory role in retention. For example, South Australia's Training and Skills Development Act 2008^{xxii} requires registration of employers of apprentices and trainees before taking on students, the broad purpose being to assess an employer's capability and facilities pertinent to the training and qualification to be undertaken. There are follow up visits. Similarly in Victoria the regulator (Victorian Registration and Qualifications Authority) has strengthened in early 2015 the form and detail of employer's declaration about their business and its operations to further protect the interests of apprentices and trainees.^{xxiii} Such approaches have been both criticised as excessive 'red-tape' bureaucracy and alternately argued as meritorious in serving to raise consciousness of the joint responsibilities and mutual obligations between employer, apprentice and training provider.

Another aspect of jurisdictional difference is evidenced by NCVER reporting about apprentices and trainees on the basis of trades and non-trades, using Australian and New Zealand Standard Classifications of Occupations (ANZSCO), with ANZSCO level 3 being trades, and levels 1-2, 4-8 being non-trades. This is a pragmatic proxy to describing a national system where there are differing jurisdictional policies as to what qualifications are aligned with what occupations and which are declared an apprenticeship or traineeship. The level of commonality versus difference across jurisdictions is routinely tracked by the Integrated Information Service,^{xxiv} a Department of Education and Training initiative. The information shows a general consistency³ across states and territories, with a difference in interpretation about what constitutes an apprenticeship qualification in about eight per cent of cases. The most recent data shows that of the 1414 apprenticeship and traineeship qualifications recorded, 110 are classified as traditional apprenticeships, 1197 as traineeships and there are mixed views among the states and territories on the remaining 107 qualifications. Such an approach can be seen either as respecting regional economic interests and jurisdictional flexibility, or alternatively as bolstering the argument that there is need to 'create a genuine national system that is easy for students and employers to use' so as to 'remove duplication between governments and better align their programs, services, and funding' including an option of a National Apprenticeship Board.^{xxv}

Supporting apprentices

NCVER analysis^{xxvi} as to when and why apprentices cancel or withdraw and what they may do after disengaging indicates attrition is far higher in the early stages of training. For trades, which generally have a far longer training duration than trainees, disengagement is mostly in the first two years. The 'good or bad' job choices by new starters combined with their on-job employment experience are the two major factors impacting attrition. Early advice on career choice and practical support in the initial stages of training has rightfully received focussed attention and resources from the Australian Apprenticeship Networks. In addition, the work environment and access to peer mentoring and support for younger workers can positively contribute to their mental well-being and retention.^{xxvii}

The recent Fair Work Ombudsmen's National Apprentice Campaign Report^{xxviii} audited a sample of Australian businesses in regard to their compliance with record keeping and correct payment of apprentices. The report found one third of businesses had not paid apprentices correctly in the two years to June 2016. It concluded 'most apprentices were being paid correctly, and most businesses were keeping the correct time and wage records for their apprentices. Issues were more likely to occur in smaller businesses, or businesses that employed fewer apprentices. It is also clear that businesses that

3 Tasmania does not categorise qualifications as either apprenticeships or traineeships

were not members of employer associations were more likely to have errors with the pay or record keeping of their apprentices'. Similarly, NCVET's analysis of non-completions finds that these employer characteristics; smaller employers, lesser supervision structure, fewer apprentices and less peer support; influence the chances of retention and non-completion of apprentices.^{xxix} The Fair Work report does not give deeper reasons for non-compliance, for example whether or not businesses struggle with the complexity of navigating the system and staying abreast of changes. Such complexity may be a deterrent to some employers even putting on apprentices in the first place.

Group training organisations (GTOs) have been a long term feature of the national apprentice ecosystem. GTOs employ apprentices and trainees and then place and support them within host employers. The value of this model is that GTOs seek to take on the responsibility for quality and continuity of the training program. Public funding reductions in 2015 forced GTOs to reassess their business models in hosting apprentices in small and medium enterprises (SMEs). They now operate under the umbrella support of the National Apprentice Employment Network (NAEN).

Incentives

The planned Skilling Australians Fund is additional to the near \$400 million invested in Australian Apprenticeship Incentives (table 1) that play an important role in employing apprentices and trainees. As the evidence of commencements and in-training numbers show, non-trades apprenticeships and traineeships were particularly sensitive to the withdrawal of incentives. The rapid decline in numbers since 2012 coincides with changes to incentives that impacted existing worker traineeships and also those qualifications in non-National Skills Needs list occupations.^{xxx} Whilst many employers see the value of apprenticeships as an investment in skills, so providing quality 'on-the-job' training, others may be more motivated by access to subsidised cheaper labour. This is what Pfeifer referred to as a production model of training^{xxxi} where apprentices and trainees are more substitutes for regular workers than learners.

The current state of play

Whilst the basic idea and practice of apprenticeships is near universally acclaimed as a valued model, the evidence and observations of the Australian system, especially over the last five years, shows a system in major, if not chronic, decline. The reasons are multi-fold. They include macro-economic factors such as accelerating 'disruptive' changes across traditional industry sectors and flow-on effects on labour market composition (including the rise of part-time jobs) as well as relative growth in other sectors such as health and caring industries. All this has impact on job openings for apprentices and trainees. Recent policy choices in education and resourcing have likely also been influential, in particular, the expansion of 'demand driven' funding in the higher education sector, which has provided alternative viable learning pathways for students.

The announcement of additional and 'perpetual' funds to help 'support up to 300 000 more apprentices, trainees, and higher level skilled Australians over the next four years' plus 'specialist mentoring funds' has, for the most, been widely welcomed. The concerns expressed however are the need for 'matching' funds to be provided by states/territories and now awaiting details about program implementation.

Towards the future

There are some 265 000 apprentices and trainees reported as being 'in training' at 31 December 2016.^{xxxii} Supporting up to 300 000 more apprentices and trainees over the next four years suggests up to and on average 75 000 extra places each year, an ambitious target. This is not the only challenge facing the VET sector. In-training apprentices and trainees are a small fraction of all VET students, there being overall more than four million in the system, of whom about 1.2 million are Commonwealth or State-funded students.^{xxxiii} This is a pool of existing and potential workers who must not be overlooked in reforms aiming to maximise Australia's productivity and workforce participation.

A challenging goal in the evolving tertiary education landscape

Besides the major factor of demand-side capacity in the economy and realised willingness of employers to take on more (ideally full-time) apprentices and trainees, there are other market factors to consider. Also in the 2017–18 Budget, is the Higher Education Reform Package,^{xxxiv} which announced the 'demand driven funding system will be expanded to include Commonwealth Supported Places (CSPs) in approved sub-bachelor level diploma, advanced diploma and associate degree courses at public universities from 1 January 2018'. This initiative is separate from the VET Student Loans program that replaced VET FEE HELP.

Besides this extension of the 'demand driven' system for approved courses, the Higher Education Reform Package also proposes new policy and funding for enabling courses from 2019 to support under-prepared students to enter higher education, and from January 2018 new incentives for universities to offer more degrees that include work experience in industry (WEI) an activity for which it is proposed that up to one sixth of a student's total load will be Commonwealth-funded for agreed courses^{xxxv}. This is a 'first step' positive response to the need identified by both industry and university peak bodies^{xxxvi} for greater work integrated learning opportunities to support graduate employability skills and work experience.

Whilst all welcome, these initiatives in higher education potentially place even further influence and market power with Vice Chancellors to draw students into their institutions^{xxxvii} (including via their preparatory colleges). The recent report from TEQSA, the national higher education regulator, indicates some 1.4 million students were studying in Australian in higher education courses in 2015, a three per cent increase compared to the previous year. New policies such as above, plus the growth in non-university higher education applications⁴ and providers^{xxxix} is the evolving tertiary education landscape within which the new growth target in apprentices is to be tackled.

Expanding the scope of apprenticeships

The certificate III level qualification is the entry-level and mainstay for apprentices and trainees, valuably supported by 'pre-apprenticeships'. It will very likely remain so because this meets the demands of the economy. The Skilling Australians Fund will have to create projects that have clear industry and regional purpose, and set conditions that employers are willing to accept because they can see a private return if they commit to additional employment. To work, these framing conditions have to majorly lift employer/student attraction, and deliver labour market benefit and improved performance across the national apprentice system.

4 TEQSA's March 2017 quarterly report noted of the 86 of prospective higher education providers, 50 are registered training organisations with management, commerce and information technology courses prominent.

This new fund is ambitious; it also needs to be farsighted. It could realise the potential for an expanded scope for the apprenticeships of the future. Imagine a species of student who has the premium benefit of employment in growth industries plus well facilitated access to a smart blend of exceptional vocational training and academic education, delivered by partnered VET and higher education institutions, fully supported by their employer, with outcomes that give excellent job outcomes and/or further study continuity.

An integrated tertiary sector apprenticeship – asking the right questions

Five pilot programs exploring higher apprenticeship models are underway in Australia, funded by the Commonwealth Government. One example is that between Siemens Ltd and Swinburne University of Technology, which aims to achieve the benefits of apprenticeship skills through the delivery of a new Diploma and Associate Degree in Applied Technologies. The qualification will focus on the adoption of high-level technology skills. These are pilot examples, however Australian policy and practice appears to be lagging European educational and training practice^{xi} as well as behind policy energy and ambitions in the United States of America^{xii}.

As such, these pilots, along with the initiatives announced in the budget, present an opportunity to explore the feasibility of creating a blended VET/higher education apprenticeship that meets future workforce needs. Here is the scenario and some of the questions that then need to be asked.

What if 100 000 of the 300 000 were targeted to participate at this higher level? Could this be driven by requiring that some of the approved sub-bachelor demand-driven places to be accessed by universities must be connected with apprenticeships? Would this drive cross-sectoral engagement? Could it leverage the capabilities of some of the reported 17 'dual sector' universities and 12 'dual sector' TAFE institutions recently listed by TEQSA (table 2).^{xiii}

Table 2 Providers by Dual sector status, 2015

	Universities	For-profit	Not-for-profit	TAFEs	Total	%
Dual sector	17	36	18	12	83	47%
Non-Dual sector	26	27	40	0	93	53%
Total	43	63	58	12	176	100%

Source: <<http://www.teqsa.gov.au/news-publications/fourth-statistics-report-registered-higher-education-providers>>.

Further, how could one sixth of total student load offered as work experience in industry be leveraged into new apprenticeships? How might the prestige of such apprentices be seen as the undergraduate equivalent of a full-time postgraduate Research Training stipend (historically called an Australian Postgraduate Award) where the 'apprentice wage'/'stipend levels' are not that greatly different. What qualifications across the span of the Australian Qualification Framework (AQF) levels 5-6-7 (diploma to bachelor degree) may be endorsed by industry as meeting their needs? What Commonwealth loan-financed VET diploma and higher education sub-bachelor courses might be connected to certificate III apprentice entry points? How would TEQSA and ASQA choose to regulate outcomes spanning such boundaries? How would states and territories best facilitate this, given that apprenticeships are their constitutional and regulatory domain? And finally, and very speculatively, could any Higher Education Loan Program (HELP) loan carried explicitly by an employed apprentice be transferred (in full or in part) from a student future repayment to a company current benefit as an eligible tax deduction, only conditional on ongoing retention and completion of the apprenticeship, or, what other ways would entice employers to commit to greater apprentice employment?

Linking apprentices to innovation

When launched, the National Innovation and Science Agenda largely overlooked the role of vocational education and training.^{xliii} This oversight has been acknowledged by Innovation and Science Australia (ISA) and in its thinking about the future, noting that “compared to other countries, Australia under-utilises vocational education and training to build skills for innovation”.^{xliiv} ISA points to the challenge of having an integrated (tertiary) education and skills system that can deal with continual change, and importantly, involves employers, employees and governments in a greater joint effort. Projects under the new Skilling Australians Fund might help meet this challenge by supporting higher level apprenticeships that can meet the needs of the fourth industrial revolution (Industry 4.0).

Creating new qualifications and reformed institutions

Finally, the Higher Education Reform Package overwhelmingly covers policy terrain impacting universities. It does, however, provide some inkling of a new horizon in two announced initiatives. One is a review of the Australian Qualifications Framework by December 2018 to explore even better definition and integration of national qualifications post schooling. It also proposes a review by the Higher Education Standards Panel of the Provider Category Standards for Higher Education Providers to be completed in mid-2018, with this to ‘include ...consultation around options to change provider categories, including the possibility of a teaching only university category’.^{xliv}

Such initiatives might lead to qualification and institutional reforms across the sectoral boundaries of VET and Higher Education.^{xlvi} Whilst Australia must have a cohort of globally competitive research-intensive universities, it is equally as important that Australia has excellent tertiary education and training institutions whose core remit is deep connection with industry and employers, and which far greater embrace the notion of growing numbers of its students being apprentices. The apprenticeship model is valuable and enduring – and it can be made much more bold and ambitious. It could become the lynchpin of a better integrated tertiary education sector.

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