Submission to the PC's Review of Skills and Workforce Development Agreement

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"First, the creation of a Department of Education, Skills and Employment that consolidates the current Department of Education and Department of Employment Skills, Small and Family Business.

This is about having continuity from the day you walk into school to the day you walk into a job and beyond, and ensuring that in your job and over your life, we understand that there is a continuous education. Education doesn't start and stop when you leave school. It goes on over your entire life. Learning happens in the workplace. Skills development happens in the school. It happens at university, at TAFE and vocational training. It's a lifelong activity. Well into senior years. And I want a public service agency department that is focused on that **continuity of policy and service delivery** and engagement with the states".

Summary of key issues and proposals the PC is asked to consider

Australia urgently needs to conceptualise and build a post schooling tertiary education, training and skilling (ETS) system¹ that is suited to both school leavers and existing workers fully covering their 'work-life' learning needs.

Funding of universities should remain as recently settled.

The PC should mandate a tertiary ETS *system* that better integrates Higher Education (HE) and VET *sectors*. All students will have fair and equitable access to course funding. Policy must be designed to create a coherent, nationally operating 'tertiary' funding and financing (ie. loans) framework that is federally supported by all governments and that spans all AQF levels (as amended in the future).

The new design must future proof a higher skilled workforce providing funding/financing for both 'new entrant' workers to further raise participation and well as support existing workers for 'up and re-skilling'.

The basis will be to publicly fund/finance both formal VET level qualifications and 'short-form' courses/credentials based on their quality and relevance, as well as considering student equity. Based on the principle of relative public benefit vs student/employer benefit, the basis is as follows:

- (a) Foundational language, literacy, numeracy and digital skills at lowest ~AQF (1-2) would ideally be fully funded publicly to encourage either further study or labour force participation.
- (b) Intermediary VET qualifications and job-entry skills (typified by current VET Certificate IIIs) would either be publicly fully funded or subsidised with students required to directly contribute 'out of pocket' or alternately able to access training loans provided by the States (or Commonwealth) to cover any shortfall between course subsidy and price (note: qualifications/courses unsubsidised by governments may be subject of full financed loans if government chooses).
- (c) Higher level VET qualifications (Certificate IV, Diplomas) would be by default all funded/financed by the Commonwealth in the same manner as current HE qualifications by combined Commonwealth Support Grant/HELP (note: qualifications/courses unsubsidised by government may be subject of full financed loans if government chooses).

Practically, all students would have tagged to their Unique Student Identifier an 'education, training and skills (ETS) loan account', the terms and borrowing costs of which would be consistent across both the HE and VET sectors ie tertiary system wide, not inconsistent as at present. This is akin to the 'personal training account' advocated by the Business Council of Australia. The students 'work-life' ETS loan account would be capped (ie not exceed a set \$ value at any time).

¹ The **nomenclature** is **deliberate**: there are recognisable **sectors**: vocational education and training (VET), higher education (HE and employers/industries, each being a component participant and engage within a national post schooling tertiary ETS **system**.

Students (whatever their employment status; whether in full or part time study) would be responsible for deciding and undertaking full or part qualifications or short courses/micro-credentials subject to their ETS activity meeting both quality standards and work relevance requirements (ETS delivered by self-accrediting providers, or short courses approved by regulators, or by other means). This test of quality and relevance is needed to safeguard public outlays against poor quality and/or irrelevant content.

With such student loans being widely available², a policy option is for 'employed' students in receipt of employer compulsory superannuation payments to (part) use these funds to pay-back or offset their ETS loans either through tax returns (like HECS repayments), or by directing their employers to make such loan repayments. This policy would operate ETS system-wide including the formal HE and VET sectors. There would be a set life-time \$ limit on such ETS purposed hypothecation to avoid waste or gouging.

This proposal is likely heresy to some. Clearly it delays accumulation of an individual's superannuation, but the benefit is workers being better able to afford and gain qualifications/credentials over their work life spans. All evidence shows where students complete quality education and training qualifications or work relevant courses, their lifetimes earnings are greater compared with those who don't. They are more likely to win better jobs and have greater income. This 'trade off' of super accumulation for ETS benefits needs to be economically modelled, for individuals and in aggregate nationally. It breaks current rules and sets a precedent. It also importantly injects more revenue into the national tertiary system.

By way of optimising market efficient VET course subsidies/costs/pricings, the 'nationally uniform and centralised' proposals suggested by the Joyce Review are inappropriate. A better alternate is for each approved provider with a government contract to submit annually auditable evidence of course prices/subsidies for each qualification offered. An independent body would analyse prices from (deidentified) providers examining all components of how a student paid total fees (by loan or loan/subsidy mix, including any private or employer payments). Public investment per course per provider when *linked to* provider-specific student outcomes would be the granular data governments need to drive quality/efficiency improvements (higher quality may be justified by higher costs/price).

Any provider's ongoing access to public funding could be determined on the basis of this data. The independent central body would then be in a 'system monitoring, verification and assessment' role ensuring all parties (governments and providers) meet the terms and intended outcomes of any new-National Agreement for Skills and Workforce Development (NASWD) and National Agreement (NA), and not 'up-front' deciding which courses are offered at nationally 'average' prices.

Like the <u>ofqual (UK)</u>, the central body could publish annual qualification price index changes based on anonymized RTO surveys. The body might also include features of an independent pricing tribunal examining for exceptional price movements. Such data should also indicate which qualifications are not in effective use and be removed from government support or from accreditation altogether.

This regime allows markets to set prices yet ensures government has informed controls (and can take action and make sanctions) based on credible ETS wide data and benchmarked evidence.

² Student loans financed by government for VET-type level qualifications are standard in other countries such as in Canada.

Rational for these proposed reforms in national ETS system funding/financing

The evolving ETS system and its players

The student-centric HE and VET sectors fulfil mostly different and complementary purposes. Both sectors aspire to effectively engage with employers and industry. Funding/financing for undergraduates in universities is recently settled. By comparison funding/financing of the VET sector, constitutionally shared by cooperative federalism, is a longstanding and ongoing shambles. It has also been subject of cost shifting and ill-conceived or poorly implemented Commonwealth interventions in VET.

The NASWD and NA funding is central to present arrangements and is the largest transfer by far of Australian Government resources to States and Territories (S&T) for VET training and is a focus of the PC's Terms of Reference.

The ETS system is increasingly far more than just the traditional regulated approved players and qualifications (eg universities and TAFEs). New entrants and less formal providers eg of short course/credentials, 'education-as-a-service platforms' and industry proprietary programs are a fast rising and legitimate part of any future effective ETS 'tertiary system'. The traditionally regulated providers are themselves amongst the most active in new products and digital delivery eg MOOCs, skills-set, microcredentials etc.

Employers and industry are part of the ETS system

Students are at the centre of the ETS system. Overwhelmingly their purpose for study is winning a meaningful job or a better job. This makes employers, by their engagement with students as employees and when working with educational providers, key stakeholders of the ETS system.

However in Australia the quality and depth of relations between industry/employers and universities/TAFEs/RTOs spanning a line of engagement from AQF 1-10 is good in parts, but overall patchy (Attachment 3). Australian employers and industry undoubtedly make direct and indirect contribution by on job knowledge transfer and upskilling. The lack of investment evidence and longitudinal data, such as 'in company' investment in ETS, or partnering with education providers, is an evidence gap needing to be filled. There are no credible baseline measures. Company investment is most probably dominantly non-accredited 'short courses' in upskilling their employees. Given the need for upskilling of existing worker across all industries this part of the national ETS system needs to be better recognised and understood.

The dearth of reliable detail and any assessment of the quality of such training, noting national urgency of companies to increase their investment in upskilling employees (eg. digital skills), cannot be overlooked. The PC should recommend ways in which such details could be collected most cost effectively.

Future impact of the now Government supported AQF Review

The AQF Review has found the AQF is not broken but needs to be modernised, such as recognising 'micro-credentials' (and similar). The Review proposed the present ten level AQF is replaced by a new AQF version with eight bands representing complexity of knowledge, six bands representing skills and a third category of application, which recognises that there are different ways learners can demonstrate they have acquired the knowledge and skills offered by their course. This would give a richer way of describing any given qualification and offers a much more flexible way to design degrees/courses. If adopted it will require a resetting of how qualifications or parts thereof (eg. micro-credentials and skills sets) are funded and financed.

The Commonwealth has just announced its acceptance of all Review recommendations. This places now the onus on all governments to establish fair and equitable access to AQF qualifications, VET in particular, as well as short courses/credentials etc in order to establish a coherent, federally supported and

nationally operating tertiary funding framework that spans the (to be revised) AQF. Outcomes would ideally deliver equally strong, distinctive and complementary HE and VET sectors in a better-connected tertiary system, so benefiting both students and employers.

Future impact of the Coaldrake Review

This review examined reforms to HE Provider Category Standards. It is also pertinent suggesting a reduced number of revised provider categories. It includes a 'national institute of higher education' category. If implemented, this will differentiate higher-performing providers that are *not* universities from other HE providers.

This category is proposed to have a measure of self-accrediting authority status and will be a source of 'blended' professional/technical graduates seen as well suited to future job needs (eg. Industry 4.0). Such graduates should include (as exists in other advanced nations) 'higher apprentices' that blend VET skills with HE knowledge. This is exactly the direction Australia's ETS system needs to take and it will again be limited if there is no radical reform to ETS system funding/financing as outlined above.

The increasing impact of the fast evolving labour and future jobs market

The PC has access to swathes of research evidence on the current state and future forecast changes in the national and international labour markets and jobs. All evidence points to an ongoing upheaval in job tasks and job types in the labour market. There is need to lift (for demographic reasons) workforce participation as well as need to raise the technical, transferable enterprise skills and knowledge for new graduates as well as for existing workers across their productive working lifespan. Australia, relative to competitor economics, is a mid-tier performer in worker productivity per person, per hour and the nation needs to find new policies to change this level of sagging under-performance.

The Joyce Review of VET is incomplete and its advice needs a rethink

The PC has been asked to accelerate its responses to Terms of Reference No. 2, 3 and 5 which appears to be driven by the needs of Government responding to the Joyce Review. Whilst a useful interim step, the PC needs to be more bold and farsighted in presenting powerful options for radical reform.

The Joyce Review offers neither solutions to increase investment in VET (public, private or employer), nor any solutions to fund (where appropriate) part qualifications/micro credentials/subjects, nor covers the merits and reasons for wider access to student loans. Its analysis is incomplete. All it proposes is greater centralised control of qualifications, costs and prices with no proposal to increase investment in training.

Summary - the PC must seize the moment

The PC has an extraordinary opportunity to not merely advise on the future funding direction of the VET sector, but far *more* importantly, to comprehensively advise on reforms needed to unify and simplify the full sweep of Australia's public funding/financing of its 'post school education and training system'.

The PC review needs to grab this opportunity to make enduring and powerful impact on future labour productivity by convincing policy makers to make seismic reforms. More specifically, any review and renewal of the NASWD and NA, if isolated from comprehensive consideration of its place and connection within the tertiary ETS system, will not address the much needed policy changes to lift Australia's human capital skills development, nor better future proof the nation as a competitive economy

Appendices

Appendix 1 Relevant personal publications/opinion articles

Appendix 2 Six learnings in retrospective review

Appendix 3 Retraining nation - not yet a 'fit for future' performance

Appendix 1

Relevant personal publications/opinion articles

These articles contain multiple embedded references to other reports and research.

Critique of the Joyce Review of VET

"The Joyce Review of VET: good summary, incomplete analysis, solutions need a rework" Campus Review Oct 2019

National Tertiary Education and Training System Policy

"Models for federated cooperation: past practice and future implications for VET" Campus Review April 2019

"Fit-for-future purpose: architectural policies, foundational enablers spanning HE/VET sectors" Campus Review June 2019

Present Policy and Reforms at the HE/VET boundaries

"Boundaries and Connections between VET and HE at AQF 5/6", Craig Fowler, 2018 LH Martin Institute, University of Melbourne Oct 2018

"The Boundaries & Connections between VET & HE: What to make of AQF 5-6 Mechanisms or Muddle?" Campus Review Sept. 2018

"Making friends with new ideas – tertiary system reforms at AQF 5-6" Campus Review Feb. 2019

New Skills Policy

"A chance to be bold and ambitious: make apprenticeships the lynchpin to a better integrated tertiary education sector" Craig Fowler, John Stanwick, NCVER June 2017

"Exploring higher level VET apprentices and VET Student Loans" Campus Review Dec. 2018

"Identifying work skills: international approaches" Gitta Siekmann, Craig Fowler NCVER December 2017

"Retraining nation - not yet a 'fit for future' performance" as JCSF Consulting Pty Ltd Australian Institute of Company Directors (see Attachment 3).

Appendix 2

Six learnings in retrospective review

1. The NASWD and the National Agreement as an instrument of cooperative federalism has proven to be flawed without clear mechanisms for fiscal accountability nor remedy

Unless and until there is a referral of Constitutional powers and a formal Commonwealth takeover of the VET sector (and COAG recently declined this path), the Australian VET sector operates by 'cooperative federalism'. The National Agreement for Skills and Workforce Development (NASWD) and National Agreement (NA) funding is central to these arrangements. This funding transfer is by far the largest transfer of resources to S&Ts for VET, far bigger (~10-15 x bigger annually) than the various past/present National Partnership Agreements. The NA is needed given the vertical fiscal imbalance inherent in Australia's federation, compared with others eg. Canada. Whilst the Australian Government has indexed the NA by ~1.43% year on year, its terms mean S&Ts were never required to index their funding nor maintain proportionate share of their funding relative to that of the Australian Government and have generally not done so. S&T Treasuries have for multiple reasons defunded VET and any occasional positive increases have been short term political (typically the bigger States) and often off set by within agency (including TAFEs) efficiency dividends/savings.

2. Discordant funding/financing policies within VET and HE devised in isolation means the sectors are disconnected and this over the last decade has been a major driver of VET's relative demise.

Policy decisions and public funding/financing of VET and HE sectors have been long isolated, indeed in part competing. The HE Bradley reforms that gave rise to the HE 'demand driven' system were never matched (nor likely to be) in any so called VET 'entitlement system' across the Federation. At least five reasons gave rise to 'cost shifting' onto the Commonwealth leading to VET's diminished resourcing and lesser prestige relative to HE. The policy reasons include: the terms of the NA (above); the growth in HE students under the 'demand driven' policy (now curbed); the huge flood and retreat of VET FEE HELP VET diploma financing and its sectoral reputational damage; and to lesser extent, the terms and funding of the NP for Skills Reform and lastly the findings of the Total VET activity collection where S&T gained insight into what they need not fund (so government VET subsidies diminished further). Another key factor was removal of traineeship employment subsidies for existing workers, exposing employer real 'rent seeking' interests in wage subsidies, not in training. Trades based apprentices have fallen far less. So for over a decade the public funding/financing of the 'tertiary system' has favoured HE over VET with the two sectors dealt with in isolation. The PC's ToR refer to 'pathway policies'; there are none formally and effectively made by governments. Student pathways are arranged 'ground up' between HE and VET institutions making the best of discordant funding/financing policies.

3. The VET related policies and funding/financing interventions of the Commonwealth, beyond the NA, have for most part been flawed and/or operationally short lived

The VET policy and funding interventions of successive Australian governments, as implemented by their bureaucracies, have for the most part been unhelpful and at worse major failures. The NP for Skills Reform included expansion of VET FEE HELP for which the Commonwealth's bureaucracy was operationally responsible. The flood and retreat of VET diploma financing, the poor training quality and loss of more than \$2 billion due to the practices of a small cohort of providers is a legacy that majorly damaged VET's reputation. The replacement VET Student Loans program is overly constricted in 'risk managed' reaction. The poorly designed and overly ambitious Skilling Australians Fund (SAF) NP independently devised by the Commonwealth was to address the fall in national apprentices. It excessively promised up to 300,000 additional apprentices/trainees. Two States declined this SAF NP,

most took one year funding agreements and the NP was effectively abandoned within two budgets of its announcement with its resources re-purposed to fund the initial implementation of the Joyce Review recommendations. This Review was driven by the intervention of the Prime Minister given political pressures and under performance of the VET sector. All the while no minister or policy advisor, until the Joyce Review, gave attention to the underperformance of NASWD (and the NA), other than its mandatory record in the Report on Government Services which consistently revealed its targets were not on track.

4. States and Territories VET outputs, controlled closely by their Treasuries, have fallen

The terms of the NASWD/NA were such that S&Ts, facing ever greater fiscal pressures eg. healthcare, NDIS, schools, etc. meant they have de-prioritised VET. Treasuries know that universities are 'colonising' areas of higher level VET qualifications, they are frustrated by the apparent excessive costs of their State TAFE systems compared with private RTOs, and know well that their local economies and jobs require skill/knowledge levels increasingly being met by the Commonwealth financed HE system. The national Education Minister now speaks and rewards universities for its 'job ready' graduates (akin to the purpose of VET). The UK has the same policy distortions and is addressing it faster than Australia.

Data shows Government-funded VET outputs have fallen significantly over the last 10 years of so. [Note 'Government funded' VET is a misnomer – it is Government subsidised VET as *any* level of public subsidy is counted as 'Government funded' VET (regardless of the proportion government vs private contribution). This means the same funding spread across a greater number of courses will increase 'government funded' enrolments. In addition annual reports by NCVER of government financing/funding of VET is stated in nominal terms, not real terms]. S&T funding has not increased for population growth and not increased with the growth of workers in the national labour market.

S&T policy makers have also been insufficiently transparent in their policy rationale and funding mechanics (including choice of courses, subsidies and pricing) in seeking to invest their diminished public funds in training that is best evidenced to be aligned with current and future jobs. This, together with policy changes, has led to provider and employer frustration and ever increased costs on students, who have no access to any loan system (other than VET Student Loans for specified diplomas). So if students can get a place at university, that's where they go and will continue to do so.

5. The VET sector has been for far too long been subject of multiparty 'contest for control' especially control of public funding as well as creation and content of training products

The VET sector constitutionally is meant to operate by 'cooperative federalism'. Firstly the S&T are very differing in size, political clout, fiscal and funding capability, economies, labour markets and population growth. Indeed, the capacity of smaller S&Ts to proportionately fund and index their share of any new NA, over the long term future, has to be seriously doubted.

Jurisdictional cooperation via COAG Ministerial 'skills' Councils (of which there have been multiple versions in the last decade or so) has been modest to poor in tackling and achieving meaningful national reforms, hence the recent Prime Minister's intervention and the Joyce Review. Relations have been more coercive federalism given the Commonwealth's unilateral interventions eg SAF NP and their assumed leadership and control of VET. The S&T remain majority funders of direct training costs.

The era of 'user choice' in the 1990s and the subsequent NP Skills Reform rightfully opened the VET market to greater contestability for training services. It has created fewer TAFEs (many now merged to create mega-size State institutions) and also gave rise to many private and overly small RTOs (there are

about 170 registered HE providers including universities but some 3,900 registered VET providers). This makes consistent VET quality and regulation hard. Providers joust for public funding and market share.

There are also vested industry interests (including control of training content) in seeking public training resources and wage subsidies, and presently no reliable way of measuring industry/employer's own investment in VET. The framing and content of qualifications is contested by both industry bodies and RTOs with present slothful processes of content renewal and rigid authorisation paths. This is all in stark contrast to course self-accreditation by universities meeting as needed industry accreditation.

There is incessant tug-o-war debate between training directly aligned to jobs (mostly true of licensed trades) vs. training that gives transferable skills, increasingly digital skills, and skills supporting generic enterprise capability. This debate is set within a clear drift of market need towards short courses and credentialing, though full qualifications are expected to remain dominant.

So an optimal structure and approach to public funding/financing of future skills remains unresolved, current arrangements are not fit for future purpose and the Joyce proposals are not a long term future solution.

The Joyce proposal for 'simpler funding' is to set up nationally averaged and consistently subsidised VET course costs and student 'out of pocket' expenses. But - this 'simpler funding' does *not* address *adequacy* of funding, *nor* HE/VET sectoral inequities, and it does *not* establish a coherent, federally supported and national tertiary funding framework that spans the AQF. It does *not* consider the needs and merits for greater use of student loans for VET. Furthermore, 'simpler funding' is assumed for 'qualifications'.

The Review itself noted that some 51 percent of VET students by training type are 'short courses' and makes an unexplained assertion its proposals progress the ideas for a 'life-long learning account', a Business Council of Australia industry-led policy proposal. As such the Review offers *no* advice on funding of short courses, skill-sets/micro-credentials and subjects (some of which, but not all of which, might be fee for service). So it gives no clear funding advice about these students, with clear evidence of ongoing declines in full qualifications and trends towards 'short courses' reported in national VET activity.

6. The fall back if jurisdictions can't agree on a new NA would be sharp separation of roles If governments cannot or are not willing to agree ne NASWD/NA arrangements, the fall back option for VET is a sharp delineation of roles and responsibilities between Commonwealth and S&T.

On this scenario the Commonwealth would corral all its present outlays: the NASWD, SAF levy, VET Student Loans, Trades loans, industry assistance and latest Skills Package funding and starts again. This could transpire as an AQF divide where the Commonwealth takes control of funding/financing of all AQF 4/5/6 VET courses (with exacting 'entry standards') and leaves the S&Ts to fund lower AQF levels eg VET Certificate III and less, being the bulk of VET output, with specific exceptions.

There are two possible exceptions for specific Commonwealth interventions. One might be in foundational language/(digital)literacy and numeracy skills by direct contracting with RTOs targeting all students who are (or are deemed) to be supported by specified Commonwealth welfare payments. This alignment of welfare to work is of specific interest to the Commonwealth.

The second exception could be the Commonwealth offering/taking control of specific 'nationally designated' courses, the target here being all trade and non-trade apprentices. The Commonwealth would decide which of the present declared (about) 110 trades and 1100 non-trades apprentices are to be funded at what level. These comprise less than 8 percent of *all* VET students or about 25% of government funded students (but more by way of training costs). Jurisdictions could fund more places at the same costs if they wished.

This approach addresses long held concerns by peak industry bodies to make national the apprentice system with one level of government fully accountable for an area that falls into sharpest concern and dispute about skills shortages. To do this the Commonwealth would either offer to take it over or seek to exercise its constitutional/funding powers as almost all employers of apprentices (with a few exceptions) in receipt of training subsidies are 'constitutional corporations'.

Outside of the above, the S&Ts would fund all remaining VET activity including any VET in schools. As consequence, the new NASWD/NA would involve *no* inter-jurisdictional transfers of funds. It would rather establish a sharp distinction on roles and responsibilities and funding.

Attachment 3

Retraining nation - not yet a 'fit for future' performance

It is encouraging the AICD highlights in 'Retraining nation' the future impact of AI on businesses, the role of Cooperative Research Centres (CRCs) and innovation, all in one issue of Company Director (June 2019). But this deserves sharper analysis. Peak bodies representing industry, university, VET and other professional bodies share a common view that Australia's post-schooling tertiary education, research and training system; the Vocational Education and Training (VET) sector in particular relative to the Higher Education (HE) sector; is not structured nor operating 'fit for future purpose' in propelling Australia's competitive economic performance, nor its social equity. Such opinions start from a common narrative in describing the forces of change and the directions for needed reform. These are summarised as follows.

Future labour markets and participation:

Technology-driven change (eg digital disruption/Artificial intelligence/Industry 4.0 etc) is in early stages of driving redundancy of old and creation of new *job types*, shifting occupational shares in the labour market. Long range forecasts have widespread predictive differencesⁱⁱ in the extent and rate at which the 'jobs-sky will fall in' or rebuild. Far more attention needs to be paid to impacts on uplifting skills and digital capability in *job tasks* across all ages in the present day workforce, in a nation chasing higher workplace productivity with employers under cost constraints yet expecting staff to have higher analytical, technical and enterprise skills.

<u>Individual opportunity and jobs</u>:

This relative labour market turmoil plays out in the day to day experiences of job-seekers who expect to both live and work longer, are globally more mobile and who may have multiple jobs (concurrent and increasingly self-created) over their working life. Such work and lifestyle drives greater 'just in time and only what's needed' modes of education and especially upskilling. Indeed, education providers themselves are competing in a swarm of disruption to their own business models.

Is any of the above of interest and actionable by Company Directors? Here are arguments it should be.

'Line of engagement' between industry/employers and HE/VET institutions

HE and VET institutions, bolstered by government policies and funding all seek to 'engage' with employers and industry through their education, training and research. Imagine then a 'line of engagement' between such institutions and employers (both profit and non-profit) spanning end-to-end from say school-based apprentices to PhDs (this is the span of the Australian Qualification Framework (AQF) between AQF levels 2/3 to 10) and all points between. What is the evidence for quality in exchange of knowledge and technology and co-investment along this line? Do impacts inform government policy? Here are some illustrative *examples*.

Where it works: Both VET and HE students report positive results on graduate outcomes in gaining jobs and improved work opportunity. Cooperative Research Centres flourish and the Business/Higher Education Round Table and Australian Research Council programs are effective. Policies supporting entrepreneurial start-ups, innovation hubs and 'seed funding', such as the Medical Research Fund are gaining traction. Industry peaks bodies and universities agreed a strategy to stimulate and there is growing evidence of work integrated learning. Industry bodies contribute to professional accreditations. Industry networks advise the Australian Industry Skill Committee on needed job skills in national qualifications.

But works less well: Little is known of the purpose and quantum spent by employers on staff education and training especially co-investment within the tertiary system. Employer training expenditure and practices were last measured by the ABS in 2002. Businesses prefer non accredited or informal in-house training rather than engage with the formal VET sector. The OECD Survey of Adult Skill (PIACC) to measure and benchmark Australian adult workforce literacy, numeracy and problem solving was last conducted in 2011/12. Numbers of withdrawals and cancellations for trade and non-trade apprentices was greater than completion numbers over the latest reported year. Australia has a few pilot examples of higher apprentices compared with nations more advanced in Industry 4.0 needs. Stakeholders differ over the approach, governance and solutions to speed up the development of vocational training package qualifications. There is limited practice of HE/VET staff co-employed in industry. Australia has very low numbers of researchers employed in business enterprises compared with other developed nations and our R&D/GDP ratio continues to slide. Finally, recent research identifies that many companies need to response more urgently to upskilling staff for job skills digitisation. Employer surveysⁱⁱⁱ indicate staff willingness to be more self-responsible in uplifting their own digital skills, as well as staff recognising that this also needs simultaneous improvement in inter-people collaboration and lifting enterprise skills.

Australia's performance is good but patchy along this 'line of engagement'; not a top flight 'retraining nation'.

Quality of job ready skills from an employers' perspective

Quality depends on viewer's standpoint: students, institutions, regulators, funders. But what of employer perceptions of quality as the tertiary system embraces more education and training accumulated in small aggregates of 'just in time, only what's needed now'? Such are the practices of short courses eg 'skill sets/'micro-credentials' etc. A job-applicants 'portfolio' will increasingly include non-accredited (e.g. warranted) components from industry proprietary courses (like AICD courses) or other 'online' content. Learners may start with foundational qualifications and then over a working life will add to their knowledge/skills/work experience building up 'personal -smarts' assets. This applies within and across all industries. The Business Council of Australia propose that workers/learners should hold a personal 'lifelong skills account' to let individuals decide what, when and how to upgrade their knowledge/skill assets. Resumes with aggregates of 'job-useful' accredited and non-accredited content may in time better suit employers.

Better balanced attention to 'long term' and 'short run'

A Board Director's duty is to diligently oversee and steer an entity's strategy and performance. Whilst Boards operate independently, their collective foresight and quality of risk-informed decisions, in vast aggregate, can impact national productivity. Without understating the latter's importance, Director's need to balance the 'long-run' productivity thesis of Krugman^{iv} with 'short-run' hygiene from a better ethical compass post Hayne.

Considerations for Directors

- Is it in the best interests of the entity for Directors to be just 'passive takers' of (mostly government-funded/financed) graduates or should they choose to influence education/training in their industry? Do they have deliberate strategy for partnerships with education, training and research providers?
- What resources are allocated at what cost benefit to such partnerships? If faced with digital and technology disruption, or product/process innovation, or need to minimise energy or waste, where do firms look; consultants, universities, TAFEs, smart-staff, overseas?

- What is the payback on any internal investment in 'digital-upskilling' of staff? Do Directors have suitable metrics giving line of sight to longer term benefits of staff retention, productivity and profit?
- Do companies have to re-think the basis of 'quality' in recruitment, and are work contracts suited to 'next gen digital natives' including on job incentives to up-skill 'just in time, just as needed'?
- If companies have employment or 'employment like' relations with (unpaid) interns, postgraduate researchers doing projects, or (school-based) apprentices, or school enrolled 'causals' doing VET courses, what are the employment, intellectual property, and insurance obligations and risks?

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Detailed references for content within this paper can be found in: Fit for Future Purpose Architectural Policies and Foundational Enablers Spanning HE/VET Sectors, Fowler, Campus Review (2019) https://www.campusreview.com.au/2019/06/fit-for-future-purpose-architectural-policies-foundational-enablers-spanning-hevet-sectors/

ii Australia's National Outlook 2060, CSIRO/NAB (2019) https://www.csiro.au/en/Showcase/ANO

^{***} Peak Human Potential Preparing Australia's Workforce for the Digital Future, Centre for New Workforce, Swinburne University (2019) https://www.swinburne.edu.au/media/swinburneeduau/centre-for-the-new-workforce/cnew-national-survey-report.pdf?utm_campaign=website&utm_source=sendgrid.com&utm_medium=email

iv Productivity for prosperity: 'In the long run, it is almost everything', Colford, World Bank Blog (2016) http://blogs.worldbank.org/psd/productivity-prosperity-long-run-it-almost-everything