

# GLOBAL TRENDS IN VOCATIONAL EDUCATION AND TRAINING



*Vocational education and training (VET) is at the frontline of Australia's response to major global challenges. An effective VET sector will be required to increase participation in the workforce, help companies exploit new technologies and drive productivity improvements across the economy. The dividends for institutions and economies that respond early, and effectively are significant. This report captures global trends in VET, focusing on issues with the greatest relevance to the Australian market. The report is underpinned by global case studies to provide a snapshot of trends in practice.*

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# 01 Preface to the report

## Australia's standing in the global VET market

Australia is recognised as a progressive market for vocational education and training. This is largely influenced by the highly decentralised nature of the Technical and Further Education (TAFE) system in some States, and the move towards contestability in the Australian training market. Under a contestable model, of which Victoria is the earliest adopter, significant power has been transferred to the consumers of education and training and the influence of government as a purchaser has been reduced. On this issue, the world is watching Australia with interest.

Despite being at the forefront of VET policy, there is much for Australian providers to learn from overseas institutions, policy makers and industry. The US market, in particular, provides a window into the future in areas such as student performance monitoring, re-engagement and participation in training. The focus on attracting disadvantaged learners to training has long been a priority in the US and has been increasingly important to the EU and Asia on the back of the financial crisis. A number of innovative responses have been developed to increase training participation by the most disengaged members of the population. The attraction of disadvantaged learners looks set to be even more

important - and more complex - in the coming decade as providers will have to deal with the perfect storm of contestable funding, major shocks to the international education market and the unique demands of a new group of learners.

The intent of this report is not to provide recommendations, but rather to share others' experiences and generate ideas. Some of the case studies will be directly relevant to local institutions, and others less so. dandolo partners was engaged by Cisco and Optus/Alphawest to research emerging global trends in vocational education and training. This work is intended to stimulate debate, inform and bring into sharper focus some of the decisions that are likely to arise in coming years. The assessment of global trends draws heavily on overseas case studies, as well as latest policy thinking and research. The intent was to identify 'trends' in action rather than a theoretical assessment of ideas that may or may not come to fruition. The report focuses on seven major trends in VET globally, and identifies four capabilities that will need to be built if providers are to operate effectively in the future training market.

**FIGURE 1: DEMAND AND SUPPLY TRENDS IN THE TRAINING MARKET**



# 02 Context

Skills are a global currency: they are a source of economic advantage and increasingly 'tradable'. Some would argue that this has always been the case, and that the 'war for talent' – a term coined in the late 1980s – has been raging for decades. However, three major factors have fundamentally elevated the skills agenda:



Global economic uncertainty



The productivity imperative



The morphing of economies and geographies

## Global economic uncertainty

Global economic uncertainty has increased the focus on fundamental economic levers, including skills. Globally in 2011, there are fewer jobs available, higher structural unemployment and less government revenue than predicted prior to the financial crisis. In the European Union alone, there were 10 million fewer jobs in 2010 than expected,<sup>1</sup> and in OECD countries, the 2011 average unemployment rate is forecast to hover above 8%, and closer to 10% in the US and Europe.<sup>2</sup> The impact of global economic uncertainty is being acutely felt in industry, where business confidence is low and capacity to invest in skills has been reduced.

At the same time, governments have also been directly impacted. The financing of bailout packages, and reduced revenues from taxation, have eroded public finances and stretched budget deficits. The aggregate budget deficit for the OECD is expected to be 7.5% in 2011 and public debt is forecast to be almost one-third higher in 2011 than in 2007.<sup>3</sup>

Economic uncertainty has forced markets, governments and companies to re-evaluate their future sources of advantage and differentiation, and the role that skills play in re-positioning. For example, western economies have almost universally acknowledged the need to transition away from low-growth industries into higher value-added sectors. There are significant hurdles to overcome in making this transition, including achieving a step change shift in the skills pool. The challenges associated with re-training, up-skilling or attracting skilled workers for a different kind of economy are significant.

## The emerging productivity imperative

The emerging productivity imperative is related to economic uncertainty, and no less challenging to implement. Governments globally are focused on the policy challenges associated with lifting the productivity of markets, companies and individuals. Work has focused at two levels: creating efficiencies so that people can do more with less, and increasing participation in the workforce. This second response – the participation agenda – is one of the most fundamental drivers of skills policy. Put simply, the agenda is to equip the disadvantaged and disenfranchised with the skills required to help them contribute economically.

Against this backdrop, governments are focused on increasing participation in VET as a major factor in improving economic productivity. Governments have set ambitious targets to rapidly develop the skills of its future workforce. The US, for example, has set the target of producing an additional 5 million community college graduates by 2020, making it the nation with the highest percentage of adults with community college qualifications in the world.<sup>4</sup> Meanwhile, India is rapidly expanding its skill development program places from 3.1 million, to reach its target of skilling 500 million Indians in manufacturing and technical areas by 2022.<sup>5</sup>

## Globalisation

Globalisation, meanwhile, is blurring the divide between economies and geographies, the emergence of China and India are well documented, and significant. Not only do these markets represent almost half of the world's population, they represent almost one-fifth of world GDP and their economic growth rates of 8-10% far outstrip the world average of 3%.<sup>6</sup> The rise of India and China has created both threat and opportunity. The appetite of these economies has meant that high-level skills have never been more transferable or tradable. As these economies develop, industry focus will shift from manufacturing (China) and business process outsourcing (India) to specialised, knowledge-based sectors.

Future job growth is forecast to be in more skill-intensive industries and roles with higher qualifications becoming a more common employment pre-requisite. Labour market forecasts predict that there will be 8.5 million more knowledge and skill-intensive jobs in Europe by 2020 and over 4 million less jobs in manual occupations.<sup>7</sup>

Likewise in the US, jobs requiring community college degrees are forecast to grow at twice the rate of jobs not requiring these degrees.<sup>8</sup>

The opportunities arising from globalisation are also significant. For example, the global market for specific roles represents a major export opportunity for Australia. The International Labour Organisation forecasts 20 million new 'green jobs' globally to service the doubling of the global market for environmental products and services between 2008 and 2020.<sup>9</sup> Skills gaps are currently acting as a bottleneck in some green sectors, such as renewable energy. Re-alignment of skills is needed to adapt to the new sustainable growth economy.

The increased transferability of skills has also created a vibrant skills export market that did not exist before. As an example, international education is now the Australian State of Victoria's largest export market – contributing \$5.9 billion to the state's economy in 2009-10.

In 2009-10<sup>10</sup> Victoria had 172,271 international students enrolled, with 68,168 training in the VET sector.<sup>11</sup>

Economic uncertainty, productivity imperatives and the tradability of high-level skills has increased the stakes around vocational education and training. The dividends for institutions and economies that respond early, and appropriately are significant.

<sup>1</sup> CEDEFOP 2010, *The Labour Force Survey*. <sup>2</sup> OECD 2010, *Economic Outlook No.88 – December 2010 – Annual Projections for OECD Countries*. <sup>3</sup> OECD 2011, *The Fiscal Challenge*. <sup>4</sup> The White House 2010, *Building American Skills by Strengthening Community Colleges*. <sup>5</sup> Ministry of Labour, Government of India 2009, *National Skill Development Policy*. <sup>6</sup> Analysis of Central Intelligence Agency 2011, 'Country Comparison: GDP – Real Growth Rate', *The World Factbook*. <sup>7</sup> CEDEFOP 2010, *The Labour Force Survey*. <sup>8</sup> Obama, President Barack 2010, *Remarks by the President and Dr. Jill Biden at White House Summit on Community Colleges*. <sup>9</sup> International Labour Organization 2008, *Green Jobs: Towards Decent work in a Sustainable, Low-Carbon World*. <sup>10</sup> Australian Education International 2011, *Research Snapshot: Export Income from Education Services*. <sup>11</sup> Department of Business and Industry 2010, *Victorian Government's Support for International Education sector*.

# 03 Challenges for vocational education and training providers

The VET sector is at the frontline of Australia's response to major global challenges. Superficially the outlook for VET providers is bright: the focus on labour market issues has rarely been sharper and the importance of industry connections has never been more valuable. In addition, the increased focus on having all students – from school age through university graduates – 'job ready' will act as a significant demand driver.

However, the changing skills market (supply and demand side) has burdened providers with added complexity, risk and uncertainty. Industry growth projections are no longer linear, funding is less certain; students are more demanding and competition more fierce. Three major challenges face VET providers globally:



A changing and broadening of the learner base



Increased competition from other providers



Weaker signals of demand from industry

qualifications at Certificate III level by 2020, and to double the number of higher qualification completions by 2020.

To meet participation targets like these, VET institutes internationally are sourcing demand from a larger pool of the population, including people from disadvantaged backgrounds that in the past may not have undertaken further education. Ireland, for example, has a targeted goal of doubling the number of students with sensory, physical and multiple disabilities in higher education by 2013.<sup>13</sup> The nature of disadvantage varies widely, but most commonly includes low socio-economic status, unemployed people or low-skilled people at risk of unemployment, and people living with mental illness or disability. A senior official at a US College interviewed as part of this project provided a sense of the magnitude of the challenge of educating and retaining those from disadvantaged backgrounds.

The VET sector is at the frontline of the participation agenda. VET plays a critical role in creating a workforce of lifelong learners that are equipped with the skills needed to work with new technologies in emerging careers. The sector provides workers with the foundation

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*One of our lead indicators for students that are most likely to withdraw from a course (or default on a student loan) is that they are the first person in their family to graduate from high school. The challenges are real.*

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## Changing and broadening learner base

The education and employment participation agenda has cast a significant policy shadow over the education sector globally. Ambitious educational engagement and attainment targets have been set both locally and abroad. In addition to the US and Indian targets described earlier, Malaysia has recently set a target of doubling the number of students taking up vocational studies from 10% to 20% of the total student population.<sup>12</sup> In Australia, the Council of Australian Governments has committed to halve the proportion of 20 to 64 year olds without

skills (such as literacy, numeracy and digital literacies) that are job prerequisites in every field (for example, to understand OH&S obligations).

The challenge for training providers spans the entire student engagement continuum; from attraction through to completion (see Figure 2).

Attracting, retaining and supporting students that are disengaged from the education system, have a low socio-economic status or other special needs (such as rural or remote location, disability, or culturally and linguistically diverse background) is likely to be more costly and

<sup>12</sup> Bernama 2011, 'DPM demands more case for vocational schools', *The Malaysian Insider*. <sup>13</sup> Higher Education Authority 2008, National Plan for Equity of Access to Higher Education. <sup>14</sup> Universities UK 2002, *Annual Review 2001/2002*. <sup>15</sup> Pan-Africa e-Network Project, Inauguration of Pan-African e-Network Project. <sup>16</sup> Jorgensen, Christian 2010, Hybrid qualifications in Denmark, Roskilde University. <sup>17</sup> HEFCE 2010, *Foundation degrees key statistics 2001-02 to 2009-10*.

complex for TAFE institutes than their current student cohort. As an indication of cost differences, the UK House of Commons Education and Employment Select Committee found that it cost universities 35% more to teach students from disadvantaged backgrounds than non-disadvantaged students.<sup>14</sup> Likewise, Australia's funding model for private schools provides five times more funding for schools in the poorest communities than schools in the wealthiest communities (DEEWR) – as recognition of the higher cost to serve these students.

Globally, as in Australia, universities, schools, companies and private training providers are increasingly competing with government funded training providers. Until recently, the demarcation between universities and technical colleges had been reasonably clear, with technical and community colleges occupying the applied end of the spectrum and universities at the other extreme.

However, industry demands for 'job ready' graduates have permeated areas of academia that were once fiercely theoretical. The rise of

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*The risk for VET providers is that they become the 'trainers of last resort':  
servicing the most challenging and least profitable cohort.*

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Though not strictly part of the definition of disadvantage, the increasing number of older learners also has implications for providers. This is particularly true in cases where older learners lack the digital literacy capability to participate fully in the workforce. To this end, training providers overseas reported an expectation that they provide remedial training for digital literacy as well as traditional literacy.

### Increased competition

As the 'currency' of skills increases, and the return on investment improves, new players will enter the market. The global market for skills provision is expanding rapidly. Not only is this occurring in emerging markets, but traditional ones as well. India's top universities, for example, have begun providing certificates to 10,000 students in Africa through interactive distance learning using tele-education technologies.<sup>15</sup>

practicums, industry guest lecturers and industry projects, in university courses is part of a trend towards degrees and higher degrees having industry credibility and linkages.

Vocational studies are expanding in secondary schools through self-managed programs and programs augmented by VET providers. The Danish Government, for example, has reduced requirements on teaching 'general' subjects in secondary schools to allow an increase in school-based learning in VET.<sup>16</sup> More institutes are providing both vocational and academic qualifications. In the UK, for example, dual qualification foundation degree students in universities and further education colleges increased from 4,320 in 2001-02 to almost 100,000 in 2009-10.<sup>17</sup>

The expansion of VET at different levels of the education sector is being driven by employer demands for work-ready graduates; the introduction of extended education participation requirements for young people; and

**FIGURE 2: STUDENT ENGAGEMENT CONTINUUM**



a credentials-driven labour market. In the US, for example, 18 states have permitted their Community Colleges (TAFE equivalent institutes) to offer selected four-year degrees.<sup>18</sup> Community Colleges partner with universities to deliver the courses in areas where a lower than average proportion of the population are degree holders (particularly in rural areas without local access to universities).

Keeping pace with industry poses a challenge to the current capital acquisition investment models and institutional structures. In a contestable environment the risk of private providers gaining 'market share' is increased. Private providers with lower-cost operating models will continue to target lower-cost/higher-revenue courses and students. This will reduce TAFE's ability to cross-subsidise service provision to students with special needs.

Another market that has been disproportionately profitable – but more exposed to competition – is international education. The additional training capacity in major source markets such as China, India, Malaysia and others has created a significant dip in revenues. The growth rate in Victoria's export income from education services dropped from 26% in 2007-08 to 9% in 2009-10.<sup>19</sup> Across 2010, the VET sector faced a 31% drop in visa grants, with a 55% drop in higher education visa grants for Indian students (36,000 students). VET sector feeder institutes (English Language Intensive Courses for Overseas Students or ELICOS) experienced a 33% drop in enrolments between 2009 and 2010.<sup>20</sup>

But the impact is also significant from a cost perspective. The creation of contestable markets exposes government funded/owned institutions with significant cost pressures. As an example, private providers may have far fewer obligations when it comes to tenure of staff and other

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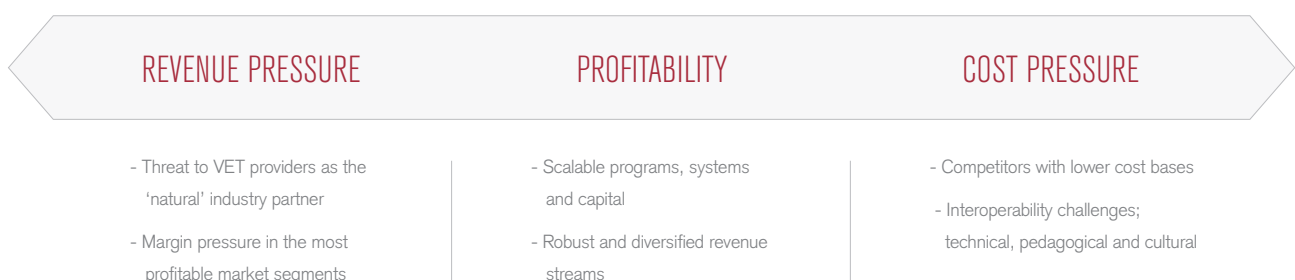
*Hyper-competition in certain market segments will create further cost pressures in institutions, and has the potential to threaten the quality of training.*

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The challenges for providers operating in a more competitive market are significant. There are the obvious impacts on revenue and profitability, particularly given that competition is likely to be greatest around higher value skills which have traditionally accounted for a disproportionate percentage of institutions' revenue.

reporting overhead. Their lower cost structures create challenges for TAFE institutes to either a) reduce their costs proportionately or b) differentiate sufficiently to neutralise the cost advantage. In either case, the challenge is significant (see Figure 3). To be profitable, institutes will almost certainly need to have scalable programs, systems and capital, and create robust and diverse revenue streams.

**FIGURE 3: REVENUE AND COSTS PRESSURES IN THE VET SECTOR**



<sup>18</sup> ACCDB 2010, *Baccalaureate Conferring Locations*. <sup>19</sup> Australian Education International (various), *Export Income to Australia from Education Services*.

<sup>20</sup> John Curtin Institute of Public Policy 2010, John Phillimore and Paul Koshy, *The Economic Implications of Fewer International Higher Education Students in Australia*.



## Weaker signals – but increased demand – from industry

Australia is a recognised authority in forecasting future skill demand. However, even the most sophisticated occupation growth forecasts have error rates of 10% to 20%, which means that accurately projecting the demand for specific occupations is inherently difficult and risky. The forecasting models developed to predict demand are complex, and made more so by the fact that a number of the major ‘inputs’ into these models are becoming increasingly uncertain:

- Technological development; upgrades in skill requirements, multi-skilling or merging of skills
- Economic growth; factors that dictate job levels (e.g. low-skilled/paid versus high-skilled/paid)
- Globalisation (trade and investment); Australian labour and skills determined by global factors

It is therefore problematic, that at a time when skills demands are highest, it has become even more difficult for industry to clearly signal their skill needs to training providers. Changes in buyer needs, regulation and technology are stimulating rapid industry transformation and structural changes to markets, making shifts in skills demands more frequent and less predictable. For local industries operating globally the reality of information market failure is making it even more difficult to anticipate skills needs and appropriately plan for the future.

Vocational training providers have traditionally traded on their connection to industries and companies to derive competitive advantage.

However, the weaker signals from industry mean that vocational training providers need to possess greater skill and judgment to interpret market trends and better anticipate skill demands. The dialogue between industry and providers is now more nuanced, and much less prescriptive. It is also produces far less predictable results.

The challenges for providers in dealing with weaker industry signals impact on all elements of institutes’ operations: teaching and learning, administration and broader community engagement.

In teaching and learning, forward planning is required to construct curriculum and materials. The lack of advance warning and pressure to respond quickly has the potential to significantly impact the quality and relevance of materials. Similarly, it creates difficulties for institutes’ needing to source or re-skill trainers in specific discipline areas, and has the potential to undermine the quality of delivery.

In administration, the impact of poor industry signals is most acute in planning. The capacity to forecast demand for infrastructure, equipment and trainers is diminished. Even a relatively simple decision around purchase of collaboration technologies is complicated by the lack of understanding about the extent to which these tools will need to scale.

Industry engagement has been a traditional core function for government funded/owned institutes. Successful engagement will mean TAFEs anticipate and quickly respond to shifts in industry skill demands. The quickening pace of skill demand changes necessitates the use of new engagement models (Figure 4).

**FIGURE 4: CHALLENGES IN RESPONDING TO INDUSTRY DEMAND**

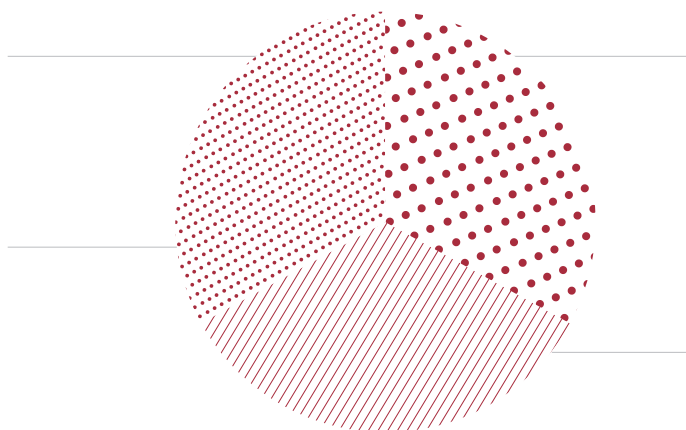
### TEACHING AND LEARNING

#### VET workforce challenges

- Industry knowledge
- Digital literacy skills
- Flexible staff movements

#### Delivery challenges

- Technology demands
- New delivery methods



### ADMINISTRATION

#### Financing challenges

- Scale up and down with changes in demand








### INDUSTRY ENGAGEMENT

#### Engagement challenges

- Deeper/broader relationships
- Forecasting demand

# 04 Trends in vocational education and training

A broad range of macro and lower level factors - spanning policy and government, the economy, society and technology - drive trends in vocational education and training. This investigation has distilled seven global trends in VET, based on their impact on VET generally and potential applicability to the Australian context. Each of the trends has a concrete, real-world example. The seven trends are:

-  Students are coming into vocational education at an earlier age and later in life
-  The international vocational education market is moving 'in country'
-  Student retention is the new battleground
-  Delivery is now multi-channel and immersive
-  New funding models and cost-shifting approaches are emerging to meet infrastructure requirements
-  New industry partnerships are driving broader, deeper and more responsive training
-  Movement between education sectors is bringing old issues to boiling point

The identified trends correspond to different phases of the learner lifecycle. Some trends span several stages of the lifecycle, as depicted in Figure 5 (See next page).

## 1. Students are coming into vocational education at an earlier age and later in life

**Earlier:** The interest of schools in vocational education and training is significant, and driven by a number of factors. China, for example, is introducing a 'dual certification' system that grants students a diploma and vocational permit on graduation from secondary vocational education schools to improve the work-readiness of its young people.<sup>21</sup> In the UK, the total number of vocational qualifications awarded in the UK increased 11% in 2009, driven largely by students undertaking vocational courses at school.<sup>22</sup> The growth is fuelled by schools' increasing accountability for student outcomes beyond the school gates.

This trend is also playing out locally, where Australian schools are expected to account for student pathways in the calculation of retention rates.

The number of Australian VET in schools students aged 15 to 19 years increased from 167,100 in 2006 to 216,700 in 2009.<sup>23</sup> The very definition of retention targets – i.e. completion of year 12 or equivalent – is a direct nod to the fact that pathways into accredited training have significant value.

Demand for vocational education and training is also a reflection of parents' desire for job prospects from education. In recent decades the strong link between higher education and higher wages have driven young people worldwide into universities. A UK study found that this sentiment is reflected by the mothers of 'Millennium Cohort babies', that overwhelmingly want their children to proceed to higher education to receive these benefits.<sup>24</sup> The increased market value of specialised vocational education skills in recent years is likely to shift parents' preferences towards VET for their children.

**Later:** As demand for new and higher level skills increase, and the population in developed countries ages, older workers will be increasingly required to retrain. European countries have been particularly active in addressing this challenge through lifelong learning policies. The number of 50 to 64 year old EU citizens participating in training increased by between one and 26% in EU countries between 2005 and 2009.<sup>25</sup> Likewise, Singapore quadrupled its continuing education and training capacity from 22,000 workers in 2007 to 80,000 workers in 2010<sup>26</sup> in the manufacturing, environmental and water technologies, infocomm services, finance, maritime, retail, tourism and creative industries.

## Case study: Meister high schools (South Korea)

**Challenge.** Education is highly valued in Korea and competition for the nation's top universities is fierce. The strong preference for academic over vocational education has resulted in a mismatch between young peoples' skills and industry needs. Unemployment amongst four-year college graduates is high.

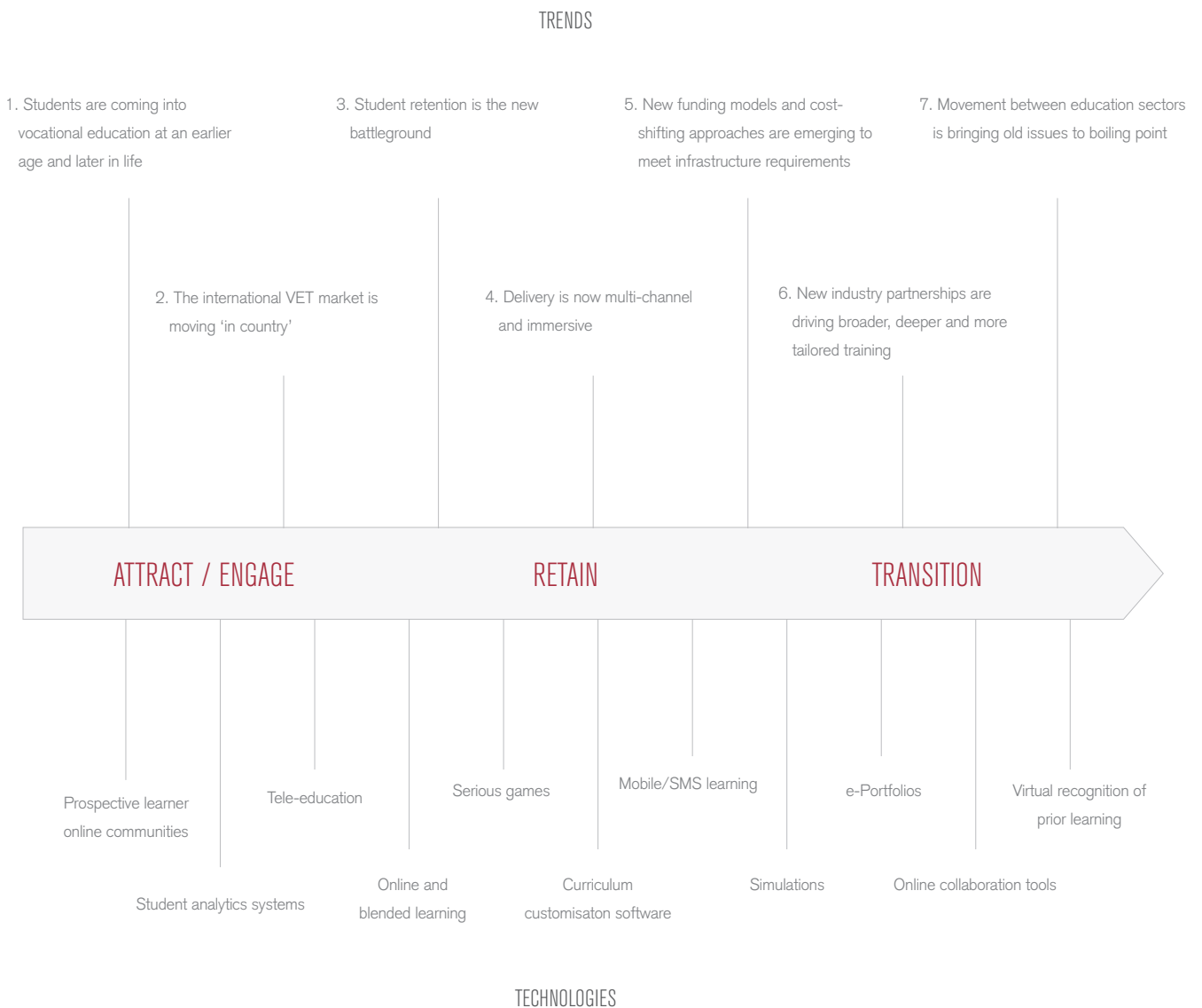
**Approach.** In 2010, the Korean Government introduced vocational "Meister" high schools based on the German job training schools model. The schools develop their own curriculum - customised to the needs of local industry (such as automotive skills) and standards. Meister schools have been granted significant autonomy over decisions relating to student and staff recruitment, and curriculum management. As part of the model secondary teachers are re-trained to teach vocational education, while others are recruited from the private sector.

Agreements have been signed with large companies including Samsung and Hyundai to train Meister students at their worksites. The students, once trained, are then recruited as full-time, qualified technicians rather than technical labourers. Companies are encouraged to participate in the program through tax credits calculated to cover the expenses associated with providing on-the-job training and allowances to students.

**Results.** In the first year of operation, strong partnerships between industry and the 21 Meister schools have been formed. Industry has engaged with the schools through the donation of equipment and facilities, and by taking on leadership positions in schools.

Further information: <http://english.mest.go.kr/enMain.do>

**FIGURE 5: TRENDS AND TECHNOLOGIES ACROSS THE LEARNER LIFECYCLE**



<sup>21</sup> Australian Education International 2010, *Outline of China's National Plan for Medium and Long-term Education Reform and Development (2010-2020)*. <sup>22</sup> BBC News 2009, Vocational exams on the increase. <sup>23</sup> NCVER 2010, Young people in education and training 2009.

## 2. The international vocational training market is moving offshore

Skilled people are increasingly moving between countries in response to changing demand. In 2010, there were an estimated 193 million migrant workers globally who moved countries for employment.<sup>27</sup> The European Union has encouraged international skilled migration through the introduction of a 'blue card' equivalent to the US green card. Through the card, the EU aims to entice 20 million highly skilled migrants to the region, particularly from Asia and Africa, over the next two decades.<sup>28</sup> There is a massive opportunity for re-skilling, training and accreditation of migrant workers.

It would stand to reason that growth in the movement of people between countries for vocational training will also continue to rise. Evidence suggests that this is not the case. Two major factors have contributed to a global trend away from offshore training:



The world's two largest international training source markets – China and India – have added significant capacity



US, EU and Australian training providers have begun investing heavily in 'in-country' delivery as a model for international education

### The rise of China and India.

Vocational training capacity is being added at an incredible rate. The number of students enrolled in vocational schools in China increased almost three-fold from 2.7 million students in 1987 to 7.4 million students in 2007. India's capacity is historically lower than China's, but its aspirations are ambitious. India aims to skill 500 million workers by 2022, particularly in growth industries such as hospitality, construction and logistics.<sup>29</sup> A significant issue in both China and India is achievement of quality standards. Difficulties sourcing qualified trainers – or accrediting new ones – has been a challenge in both markets.

### Localised delivery by overseas providers.

Recognising the size of the commercial opportunity and the challenges faced by China and India in ensuring quality of provision, a number of major overseas providers are investing heavily in vocational training within India and China's borders. This has been encouraged through a

relaxation of regulations on overseas providers. Australian VET institutes increased the number of offshore student enrolments from 21,000 to close to 60,000 between 2004 and 2008 students.<sup>30</sup> There are significant challenges for providers to adapt to environments where regulatory and qualifications frameworks are still in their infancy (for example, teacher accreditation and course quality).

Not all markets have been effectively addressed by international providers. The International Finance Corporation (World Bank) and Islamic Development Bank recently issued a 'call to action' for international partners to provide and invest in vocational education across the Arab world.<sup>31</sup> With the economic loss of youth unemployment exceeding US\$40-50 billion in the region annually there is a pressing need for reform of the VET sector. China is the largest offshore and onshore market for Australian VET providers. However, the offshore and source country markets differ with offshore students mostly based in Vietnam, Fiji, Kuwait and Indonesia and onshore students predominantly coming from India, the Republic of Korea, Sri Lanka and Vietnam.<sup>32</sup> Markets are emerging in developing countries that export their labour services, particularly Nepal, Philippines, Sri Lanka, Vietnam and Bangladesh.<sup>33</sup>

### Case study: Scaling up vocational education (China)

**Challenge:** Since 2000, the Chinese Government has placed increasing emphasis on the importance of vocational education, creating 1,100 vocational training colleges. Expansion has impacted teaching standards and has not yet addressed the gap between current vocational skill levels and future needs.

**Approach:** The National Outline for Medium and Long Term Educational Reform and Development (2010-2020) sets out the Chinese Government's reforms. For the VET sector, the plan commits the Government to:

- Building model schools and field training bases - 50 demonstration technician colleges, 200 demonstration senior secondary technical schools, 500 demonstration regular technical schools and 100 demonstration public training bases
- Establishing a senior secondary technical training school/college in every city above prefecture-level
- Co-operation between schools and industry for curriculum development and advice on the operation of vocational schools

- Encouraging companies to align the salaries of vocational education graduates and junior college graduates and alter the civil service classification structure to allow graduates of senior secondary technical schools and technician colleges to be recruited
- Creating links between institutions in the less advanced western regions and more advanced eastern regions (where demand from students is insufficient to meet industry needs) to boost vocational education development in rural areas
- Introducing free secondary vocational education and improved financial assistance for low SES students

The specific VET sector reforms are underpinned by general changes to improve teacher quality (including altering the teacher classification structure to recognise the demands placed on VET teachers), guaranteed funding for the duration of the plan at 4% of GDP, construction of a digital education system and improved online teaching resources, and improved accountability for the administration of the education system.

Further information: <http://202.205.177.9/edoas/en/index.jsp>

### Case study: Expanding vocational education (India)

**Challenge:** India's working age population will grow by 200 million over the next two decades. Currently only around 2-3% of India's young people (15-29 years) goes through formal vocational training. The low number of vocational schools and institutes in India limit the number of skilled young people – China has almost 10 times the number of vocational high schools than India. India currently produces 3 million skilled workers annually.

**Approach:** India's action plan for vocational education and polytechnics was released in 2007. By 2012 it aims to:

- Expand vocational education from 9,500 to 20,000 schools; increasing capacity from 1 million to 2.5 million students
- Create multiple entry points into vocational education for students that drop-out of school before reaching class 10

- Upgrade 400 government polytechnics and set up 125 new polytechnics using public-private partnerships (PPPs)
- Run polytechnics in shifts and run polytechnic night classes in colleges to boost capacity

There are a range of initiatives underway to improve the quality and breadth of vocational education including:

- The National Skills Development Corporation (a partnership between the government and industry associations) has provided viability gap funding to create 26 large for-profit vocational institutions
- Standardisation and certification of training programs by Sector Skills Councils and introduction of a National Vocational Qualifications Framework
- Reduction in land requirements for establishing new technical institutes to encourage new private providers into the market

Further information: [http://planningcommission.nic.in/plans/planrel/fiveyr/11th/11\\_v1/11th\\_vol1.pdf](http://planningcommission.nic.in/plans/planrel/fiveyr/11th/11_v1/11th_vol1.pdf)

<sup>24</sup> University of London 2008, Millennium Cohort Study Third Survey: A User's Guide to Initial Findings in Wolf, Alison 2011, Review of Vocational Education – The Wolf Report. <sup>25</sup> CEDEFOP 2010, *The Labour Force Survey*. <sup>26</sup> Ministry of Manpower, Singapore Government 2010, *Continuing Education and Training* <sup>27</sup> International Labour Organization 2010, International labour migration: A rights-based approach. <sup>28</sup> Europa 2007, Attractive conditions for the admissions and residence of highly qualified immigrants. <sup>29</sup> India Education Review 2011, 500 mn skilled workers, innovative knowledge economy by 2022: Sibal. <sup>30</sup> Australian Education International 2010, Research Snapshot: Transnational education in the public VET sector. <sup>31</sup> Education for Employment 2011, Education for Employment: Realizing Arab Youth Potential. <sup>32</sup> Australian Education International 2010, Research Snapshot: Transnational education in the public VET sector. <sup>33</sup> Karmel, Tom 2011, the shifting demographics and lifelong learning, NCVET.

### 3. Student retention is the new battleground

The economic argument for student retention is irrefutable: it is significantly more expensive to acquire a new customer than to keep an existing one.<sup>34</sup> While this principle has not necessarily been researched in the training market, providers are recognising that much of the cost associated with training a learner has been expended well before completion. In cases where funding is tied to completion, the economic cost of losing students mid-stream is significant. College drop out rates are recognised as providing a conservative estimate of drop out rates in VET.<sup>35</sup> One in five students in the US and one in seven students in Canada do not make it into the second year of their college courses. The US figure alone represents a total cost to the economy of \$6.2B from students not being retained.<sup>36</sup>

#### Better tracking of changing student circumstances: academic, behavioural and financial

Diagnostics that capture data about student performance and progress in real time are proving valuable to ensure that interventions occur earlier, and are more appropriate. Student management systems' functionality is increasing to capture data specifically designed to head off non-retention. The power of the systems is their real time capability: delivering information (not just data) to the right person at the right time.

#### Faster, and more intensive responses to at-risk students

Closing the loop has proved difficult, even when institutions have access to relevant data. Significant effort is being spent globally to identify what responses work best in specific settings, and why.

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*“A lot of students want help, but they don't feel comfortable asking for it.”*

LORALYN TAYLOR, DIRECTOR OF INSTITUTIONAL RESEARCH AND REGISTRAR, PAUL SMITH'S COLLEGE

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However, in education and training terms the economic rationale for this strategy tells only part of the story. The stakes, of course, are much higher for individual students at risk of disengagement. Governments' participation targets and policies have sharpened the focus on what providers are doing to keep learners engaged. The focus of VET providers is occurring on three fronts: 'Developing an understanding of student risk factors', 'Better tracking of changing student circumstances: academic, behavioural and financial' and 'Faster, and more intensive responses to at-risk students'.

#### Developing an understanding of student risk factors

A significant body of evidence already exists that indicates predictors of drop-out. These range from socio-demographic factors (income, family history in education) to behavioural factors (attendance, punctuality). As institutions begin to capture and monitor these risk factors institutions are developing highly detailed, context specific learner profiles.

#### Case study: Early Alert & Connect student support system (US)

**Challenge.** Paul Smith's College is a small, private institution offering vocational and academic qualifications to 1,000 students from mostly lower socio-economic backgrounds in rural New York state. The college had a low retention rate - only 60% of students moved from first year to second year - creating significant economic impacts on the college and its students.

**Approach:** Paul Smith's identified a range of risk factors of non-retention, ranging from academic (deterioration of grades), punctuality (late submission of assessments), attendance and social issues. The college deployed a system that linked all of these records and triggered appropriate responses from support staff based on specific 'red flags' that were recorded against students. Informational red flags (e.g. low student motivation, student accounts on hold) prompt an automated email to the student encouraging them to book an appointment online with support staff. Action flags (such as missing required tutoring) initiates staff member contact with the student. Urgent flags (including suspension warnings) raise an immediate email to all staff that have a relationship with the student to ask them to intervene to prevent the student from being suspended.

By week six of the semester, faculty and support staff had a clearer picture of the students that required assistance. The staff member that raises the flag receives an automated run-down of the results of their intervention to encourage them to continue to play an active role in student support.

**Implementation hurdles:** Costs to implement the system, privacy issues and staff resistance were the main obstacles. Cost concerns were quickly overcome when the College calculated that even a small increase in retention rates would cover the initial and ongoing cost of the system - in the tens rather than hundreds of thousands of dollars. Privacy issues were overcome by ensuring strict adherence to information privacy conventions. In fact, the person deploying the system was the school's institutional research representative which helped to convince staff and students that it was being handled appropriately. Staff resistance was partly addressed by the intuitive nature of the user interface, which enabled non-tech savvy staff to easily raise and respond to flags.

*"The beauty of our system was that it was intuitive and when people started seeing that the less tech-savvy staff were using it, there was a knock-on effect."* Loralyn Taylor

**Results:** Just a year after rollout, the impact of the comprehensive student support system has been felt institution wide. The system has provided a 4.5-fold return on investment. Students feel better informed, better supported and most critically, have early access to the help they need. Staff report feeling better connected to students and the range of support functions in the college. The community is better served academically and socially by higher attainment.

Further information: [http://www.paulsmiths.edu/offices/retention/early\\_alert.php](http://www.paulsmiths.edu/offices/retention/early_alert.php)

## 4. Delivery is now multi-channel and immersive

The emergence of online and blending learning is hardly a new trend. However, its uptake globally is significant. For example, in 2010, 14% of the Finnish population attended online education and training<sup>37</sup>, and nearly 30% of US college and university students took one or more online courses.<sup>38</sup> The growth rate in online enrolments in the US, far outstripped overall growth in the higher education student population (21% compared to 2% from 2008 to 2009).

Recent trends in blended and online learning models tend to focus on two areas: 'A move away from replicating face-to-face pedagogy towards development of new pedagogies that make full use of this medium' and 'A move towards mobile learning'.

### A move away from replicating face-to-face pedagogy towards development of new pedagogies that make full use of this medium

Face-to-face learning delivers generic material in a set, linear timeframe. Online and blended learning let learners interact and collaborate and access multimedia resources that engage multiple learning style preferences and reduce the asynchronous element of traditional e-learning. For example, new mediums are increasing opportunities for different kinds of collaboration – including between students, trainers, industry and others in the community. The eTesda Portal, based in the Philippines, encourages community learning through the sharing of blogs, photos, videos and forums. VET providers are exploiting new technologies to create a more immersive training experience. By combining technology with authentic workplace settings students are able to better simulate vocational demands while in a training context.

### A move towards mobile learning

The explosion in mobile devices is having a profound impact on training. Experimental mobile applications are emerging globally that do far more than convert online courses into mobile form. The Christchurch Polytechnic Institute of Technology in New Zealand used mobile technologies to improve bakery apprentice completion rates. The Institute traced low retention to the fact that workplace assessments were not taking place. A major factor was bakery owners' lack of time to sign off assessment paperwork. It replaced paper-based assessments with ePortfolios that allow bakery apprentices to use their mobile phones to capture photos, videos, audio and text as evidence of their skill and knowledge development in the workplace. Today, only the final practical assessment occurs at the Institute.

### Case study: Just-in-time workplace learning (Singapore)

**Challenge:** A large retail hardware chain in Singapore wanted to improve results by providing consultative selling training to staff. The training was initially provided offsite, but hit a stumbling block when managers could not backfill shifts for staff to attend. The retail sector

<sup>34</sup> Berger, P.D., & Nasr, N.I., 1998. 'Customer Lifetime Value: Marketing Models and Applications', *Journal of Interactive Marketing*, 12 (Winter), 17–30. <sup>35</sup> American Institutes for Research 2010, *Finishing the First Lap: The Cost of First-Year Student Attrition in America's Four-Year Colleges and Universities*. <sup>36</sup> The Edmonton Journal 2007, National college dropout rate now 1 in 7. <sup>37</sup> CEDEFOP 2011, *Community survey on ICT usage in households and by individuals*. <sup>38</sup> The Sloan Consortium 2010, *Class Differences: Online Education in the United States, 2010*.

has one of the lowest productivity levels in Singapore's economy – 40% of the national average – and training was seen as part of the solution.

**Approach:** The hardware store is piloting a cross media learning tool designed for staff to discover, practice and implement consultative sales techniques in a store environment. Retail staff learn and practice consultative selling skills via mobile devices in a game based environment. To facilitate in-store behaviour change, sales assistants are equipped with handheld tablet PCs to use in-store that advise how to initiate changes in customer-sales person dialogue. The learning system

technology assets such as networks and devices has created significant overheads. Revenue and cost pressure is sharpening the focus on business cases for major infrastructure investments. In some cases, the need to invest in infrastructure at all is being avoided. The increasing use of simulators is creating financial and learning benefits. From a financial perspective, online simulators displace the cost (and regular upgrade) of expensive machinery required for training. And from a learning perspective, sophisticated simulation programs not only allow a learner to complete a given task but will also report to a trainer where

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*“eLearning is still conventional learning – we can do better than that.”*

SHARON CHOO, CROSS-POLLINATOR, NBDA ASIA

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also has product knowledge quizzes, typical customer scenarios/dialogue and service excellence modules. The system tracks in real time the top 10 performing staff members across the stores in the hardware chain adding an exciting competition element to this new learning environment.

**Implementation hurdles:** Serious games are five to 10 times more costly to develop and take five to 10 times longer to complete, than conventional e-learning modules. This pilot project is designed to prove that benefits of serious games, when implemented well, still provide a significant return.

**Results:** The project is still in the development phase.

*Further information:* <http://app2.wda.gov.sg/>

## 5. New funding models and cost-shifting approaches are emerging to meet infrastructure requirements

Revenue uncertainty, cost and profit pool pressure and difficulties forecasting future skill needs are forcing institutions to think laterally about infrastructure requirements. Institutions are looking at innovative ways to minimise investment in new infrastructure.

### Infrastructure avoidance

Training provision is often infrastructure-heavy. The need for physical buildings (often in major cities), up-to-date industry equipment and

the learner went wrong in completing the task. The use of collaboration tools that facilitate workplace-based assessments and training is also helping institutions reduce their physical footprint. In the case of heavy equipment training, for example, training institutes that use simulators reduce fuel consumption, limit equipment wear and tear and reduce the number of accidents caused by inexperienced operators.

### Infrastructure financing

Some infrastructure investment cannot be avoided. Email systems, learning management systems, network infrastructure and other strategic assets are all necessary for the effective operation of VET institutions. However, the traditional buy, build and own (and potentially operate) model for financing this type of infrastructure is being challenged. The provision of infrastructure as a service is increasing as training providers recognise the model's advantages when they need to scale or shed users quickly. Cloud computing is one example, and cloud-based applications have emerged in the training market for applications as diverse as call centres for student admissions, and help desks to support online course delivery.

### Cost sharing arrangements

Some infrastructure offers competitive advantage, while others are pure utility. The move towards shared services models in training sectors, including Australia, acknowledges that some services should be built



once and deployed many times. Shared services is expanding into areas that were thought impossible several years ago, including sharing of data centres between competing training providers. Sharing also exists between industry and providers, commonly around PPPs (see India case study).

A less publicised, but practical, model for infrastructure cost sharing is used heavily in the US. North Point High School faced a choice: improve its physical learning environment or upgrade its technology assets. The school achieved both by entering into a long-term commercial partnership with the local electrical union. The union was looking for a night class venue and the school wanted to provide relevant training on current equipment. The union agreed to provide and maintain the electrical equipment in exchange for after hours access to its electrical lab.

### Case study: SPARKS game-based electronics simulations (US)

**Challenge:** College staff have observed a shift in student learning preferences. Students starting at the college are digital natives that expect up-to-date technology to be integrated in their learning environment. They also expect the curriculum to be tailored to their needs and the results of their efforts to be available immediately.

*"Students have changed in the way they learn."* Al Koon, Head of Electronics Engineering Technology, Tidewater Community College

While students are demanding more sophisticated technologies, colleges are working to do more with less. Colleges are needing to maximise the outcomes of face-to-face instructor time by targeting areas that students find difficult and reducing capital outlays.

*"The technology is changing each year and the schools we work with can't afford it."* Al Koon

**Approach:** Tidewater Community College in Virginia uses games-based simulations to mimic new technologies in its electronics courses. Students score points as they work through tasks, receiving tailored feedback and links to online tutorials when they are off-track. Students complete the realistic simulations online at their convenience before coming to class. The multi-player video game set-up motivates students to complete the challenges, compare their performance with their peers and perfect the tasks.

*"We can assess what kids are doing, not just if they are getting it right."* Paul Horwitz, Senior Scientist, Concord Consortium

**Implementation hurdles:** To prevent misconceptions, the project team has been keen to emphasise that simulations are a supplement to working with physical equipment rather than a substitute. The aim is to present lifelike simulations where learning can be applied when working with physical equipment.

**Results:** SPARKS is a work-in-progress and quantitative results are not yet available. The impact of the virtual simulations has been felt across the College:

- Students are motivated to learn and arrive in class better prepared to use the electronics equipment
- Instructors know how to target their teaching to best benefit their students
- The college spends less on repairing breakages, freeing up funds to purchase new equipment

Further information: <http://www.concord.org/projects/sparks>

## 6. New industry partnerships are driving broader, deeper and more tailored training

A basic supplier-consumer model between industry and providers has dominated vocational education. As competition intensifies – including new competitors from outside the VET sector – industry is demanding new partnering models. These models focus on establishing deeper collaborations, broadening the training offering or making training more customised.

### Broader partnership

Industry training is most often associated with the acquisition of hard skills and accreditation. However, competition for talent and increased participation by disadvantaged cohorts has created a market for a broader offering. As an example, companies are increasingly accepting that technical skills can only be effectively leveraged if underpinned by literacy, numeracy and technological competence. A stark example is the requirement of construction workers to be able to read and comprehend occupational health and safety manuals, or for bookkeepers to operate specific software programs.

In Ireland, 300 enterprise-led learning networks, known as Skillnets networks, have been established. The networks represent groups of companies that jointly design, manage and deliver customised training programs to their employees. Co-funded by the government (EUR14.5 million in 2010-11) and participating companies, the networks

collaborate through self-managed online portals to determine the training needs relevant to their industries, which range from digital media to ICT.

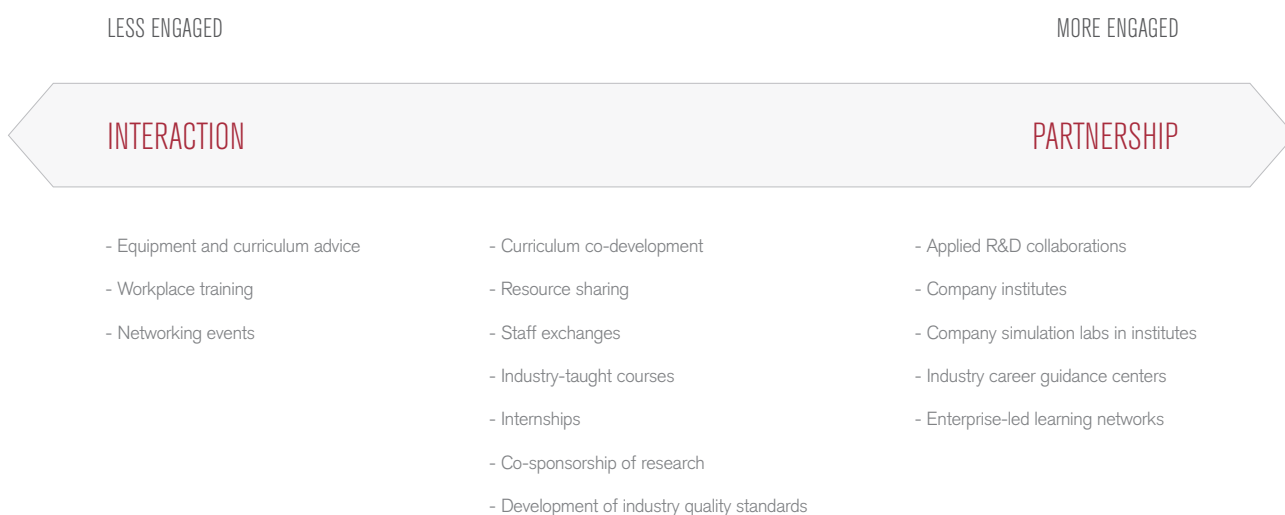
Skillnets networks open doors that individual companies can't get a hold on.

### Deeper partnerships

Just as universities have stretched into vocational education, vocational providers in some countries are going the other way. Research and development – long associated with universities – offers significant value to industry and the education collaborator. However, the focus on rapid results in vocational education has made this model difficult to resource and implement in a VET setting. In an effort to deepen the partnerships between industry and providers, the Canadian Government has launched a CA\$28m R&D program that enables companies and training providers to collaborate on applied problems. At the heart of the program is a definition of the industry-trainer relationship.

Similarly, over the next ten years China plans to increase engagement between vocational schools and enterprises by inviting industry to participate in teaching quality evaluation, running occupational skills competitions, encouraging industry associations and enterprises to run vocational schools, and establishing a system for skilled personnel to teach in vocational schools. The Chinese Government plans to provide financial incentives to enterprises that invest in vocational education, accept students for fieldwork and in-service training, and accommodate on-the-job learning for trainers.<sup>39</sup>

FIGURE 6: FORMS OF ENGAGEMENT BETWEEN INDUSTRY AND THE VET SECTOR



## More customised

Industry has long desired customisation, but has not necessarily been in a position to afford or demand it. New technologies and increased competition has created the conditions for comprehensive tailoring of courseware, delivery models and training settings. As an example, the demand for workplace based training is growing as companies seek to reduce the costs associated with off-site training.

A range of forms of engagement between industry and the VET sector are outlined in Figure 6.

### Case study: Applied research partnerships (Canada)

**Challenge:** Since the 1980s Canada has had a weak innovation record and lower than average investment in business R&D relative to comparable countries. Lack of research capability in companies was identified as a major barrier to improved productivity, particularly among SMEs.

*“Success has led to permanent partnerships and demand has exploded.”*

Natalee Tokar, Acting Director Research and Innovation, Niagara College

**Implementation hurdles:** Getting applied research up and running required a culture shift in colleges. Niagara College is a leader in applied research partnerships in Canada. Although the College had a successful history of industry engagement, applied research was a new service being offered to businesses. Niagara Research (the college’s applied research administration division) played a lead role in communicating the benefits of applied research to the college’s executives, students, industry, faculty and the broader community.

**Results:** In 2009-10, 8,329 Canadian students in 100 institutions were exposed to practical, hands-on problem solving, innovation and entrepreneurial skills sought by employers; 1,196 faculty maintained the currency of their industry knowledge; and 3,795 companies received targeted research in their local community leading to new/improved

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*“Industry partners innovate and grow their business, faculty update their industry knowledge and students get invaluable practical skills and access to job opportunities”*

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**Approach:** Over the past five years Canada’s federal and provincial governments have steadily increased their investment in applied research partnerships. Through these partnerships, colleges and similar institutions use their insight into local business needs, challenges and opportunities to work with businesses in proof of concept, testing and benchmarking, and development, prototyping and modelling. Businesses lodge requests for research assistance and together with college students and staff they develop a research plan.

products, services and processes; more effective marketing; improved decision-making; strategic and business planning; increased sales; markets and customers; job creation and retention. Colleges contributed CA\$35 million to the partnerships and CA\$103 million came from other sources.

Further information: [http://www.accc.ca/ftp/pubs/studies/2011\\_innovation\\_eng](http://www.accc.ca/ftp/pubs/studies/2011_innovation_eng).

## 7. Movement between education sectors is bringing old issues to boiling point

Traditional boundaries between educational sectors is blurring. No single 'offering' is identified with a specific education sector. Consider that:

- In 2010, 18 states in the US permitted their community colleges to offer selected four-year degrees, particularly in areas where a lower than average proportion of the population are degree-holders<sup>40</sup>
- Half of UK's foundation degrees are offered in further education colleges and the remainder are offered by universities<sup>41</sup>
- In the US, over 100,000 students in 230 Early College High Schools in 28 states simultaneously have earned a high school diploma and an Associate's degree or up to two years of credit toward a Bachelor's degree<sup>42</sup>

Given the overlap in products, learners are distinguishing less between types of providers and have an expectation that they can seamlessly move between sectors. For example, Korea has recently introduced entrepreneurship courses into its 15 leading colleges<sup>43</sup> and universities in the UK are considering awarding extra credit to students with 'corporate skills' or job market experience.<sup>44</sup>

Despite expectations of seamless transitions, the global reality is quite different. The sheer volume of movement between sectors has challenged funding models, recognition of prior learning and articulation frameworks. The increased focus on disadvantaged students moving between systems is also challenging systems used to capture and share information about performance.

### Recognition of prior learning

Effective Recognition of Prior Learning (RPL) is a critical underpinning of transfers between providers and sectors. Without it, there are significant risks that new intakes do not have the pre-requisite experience or qualifications to complete their training. There has been significant progress globally in the development of frameworks and tools to improve the quality of (and results from) the recognition process.

The Council for Adult and Experiential Learning in the US, for example, has developed a Virtual Prior Learning Assessment Centre that collects students' learning experiences in online portfolios.<sup>45</sup> The Council hopes

that the Virtual Centre will encourage learners that have little or no higher education or training to participate in continuing education by recognising previous learning experiences including work, civic, voluntary and military. Community colleges involved with the project are working with universities and accrediting bodies to ensure increased demand for RPL is met.

### Funding models

An emerging global trend towards funding following the student is evident across K-12, vocational and higher education. Funding follows student – or voucher based systems – have been put in place in K-12 and pre-school in countries as diverse as Sweden, Hong Kong, the US, the Netherlands and Chile. At present, in China over 40 counties, districts, and cities are pursuing implementation, and the Department of Education of Zhejiang Province (China) has recently begun promoting the voucher system.<sup>46</sup>

### Human resource management

As vocational/applied teaching skills and industry knowledge become more valued by universities and schools there will be greater competition for VET staff from these sectors. The VET sector needs to position itself as an attractive employer when VET staff have more options than ever before. Changes to VET staff accreditation and classification models will need to keep pace with changes in other sectors employing VET staff. The sector cannot afford for accreditation and classification to be stumbling blocks for attracting and retaining staff.

### Student administration management

Learners are distinguishing less between sectors and are expecting to move without barriers into, through and out of VET institutes. Administration systems will need to be flexible enough to accommodate students that are engaged for different period of time, through different modes. As well as operating across individual institutes there will be a more pressing need for systems to interact with those used in other sectors to facilitate information transfers, referral and RPL.

<sup>40</sup> Foley, Ryan 2010, '2-year Wis. Colleges seek to offer 4-year degrees', Bloomberg Businessweek. <sup>41</sup> HEFCE (Higher Education Funding Council for England), Foundation degrees key statistics 2001-02 to 2009-10. <sup>42</sup> Early College High School Initiative 2007, Overview & FAQ. <sup>43</sup> Wook, Kyung 2011, 'Inclusive Growth in Korea', OECD-WB Conference on challenges and policies for promoting inclusive growth. <sup>44</sup> Shepherd, Jessica 2011, 'Students could boost marks by showing 'corporate skills'', The Guardian. <sup>45</sup> Dembicki, Matthew 2010, 'Turning prior learning experiences into credit', Community College Times. <sup>46</sup> <http://www.innovations.harvard.edu/awards.html?id=30981>

# 05 Implications of the trends for training providers and government

Global trends have significant implications for training institutions; both in terms of threats and opportunities. The sectors' continued evolution and relevance hinges on its responsiveness to new demands from industry, learners and the broader community.

Organisations that provide training will need to adapt in fundamental ways, and across both administration and training/learning. Specifically they will need to develop the capacity to be more:



Flexible in the management of costs



Responsive to new learner requirements and industry



Collaborative with other sectors, industry and learners



Innovative across all aspects of the student lifecycle

## Flexible in the management of costs

Private RTOs have long had a significant cost advantage over TAFE institutes. RTOs have generally had greater flexibility in terms of workforce terms and conditions and lower infrastructure requirements (a function of scale). The issue for TAFEs in the future is likely to be less about reducing costs and more about ensuring that it can flexibly change its cost base in line with demand. The challenge will be rapidly scaling costs up and down in line with demand. Costs that will need to be flexibly managed include infrastructure costs (which have traditionally been a fixed item with long-term paybacks), workforce costs and administration costs. An institute's capacity to grow and shrink its cost base in line with demand will be a major competitive differentiator.

So how is cost flexibility achieved? In a workforce context, options could include changes to current contracting arrangements including rules relating to tenure. But it could also mean investment in the capability to rapidly up-skill and re-skill staff, and broadening the employee base to support overseas delivery. Some institutions are already using overseas staff to deliver training in new markets, a model which has cost and other advantages.

Systems for administration and learning management will also need to scale with demand. One of the most effective ways to achieve this is

changing the way in which these systems are funded. As an example, payment on a 'per user' basis is likely to be far less risky than investing in systems ahead of demand.

Infrastructure costs will also need to scale and contract – a major challenge. Infrastructure spending is generally long-term and front-ended. Typically it is more difficult to scale down than up when it comes to infrastructure. Given that much of the infrastructure cost is already sunk, there are few cost advantages to be gained when users are removed from an infrastructure (e.g. a call centre facility). Treatment of infrastructure as a service rather than a capital cost may provide greater flexibility and opportunities to recoup savings as demand recedes.

While flexibility is critical, the need to remain cost competitive should not be understated. Opportunities to strip costs out of operations through resource sharing and new procurement models, as well as administrative improvement, will be necessary.

## Responsive to new learner requirements and industry

**Learners:** The typical learner in the vocational education and training market is changing. The participation agenda will force institutions to embrace a new cohort: disadvantaged learners. The transition will be critical, and rewards are likely to exist for those that can effectively attract, develop and retain this group of learners. While a number of institutions already have significant disadvantaged student bodies, the sheer scale of new learners coming into the system is likely to challenge most institutions.

Areas that may need to be addressed include the design of physical learning spaces; investments in delivery options; adjustments to training methods and pedagogy; the development and resourcing of support services; and investment in new tools to monitor engagement. Institutions will also need to invest in understanding how to access the new market of students, given they may sit outside traditional catchments (schools and industry).

The focus on improving learner retention rates – particularly among the disadvantaged cohort – could involve investments in:

- Pre-skilling learners so that they have the capabilities to complete courses
- Better directing students to courses that fit their capabilities
- Monitoring student progress and providing support when they are slipping behind

The challenge, naturally, will be doing all of this profitably. The 'anytime, anywhere' argument has never been more compelling. In the past anytime has been taken to mean any time of day, and in reference to online technologies that allow 24x7 delivery. But in contemporary training it is also coming to mean commencement and completion of courses at any time. The adherence to strict semester timings may be disappearing, which will create challenges for institutions in resourcing, administration and planning. 'Anywhere' challenges will continue to focus around the physical delivery of courses, including a continued embrace of remote and mobile learning. As always, the amount of 'blending' will ebb and flow depending on the capability and needs of a particular learner but there is certainly an expectation that students can access courseware and staff via multiple channels.

The final area of flexibility required by institutions is to deal with 'any student'. New types of learners, including those from disadvantaged backgrounds, will demand or require new training approaches. The use of serious games, interactive courseware and highly facilitated learning will challenge institutions that have relied on developing once and replicating many times. In the future, customisation will need to be systematised and replicable.

**Industry:** Maintaining or increasing relevance to industry will be critical but more difficult. Institutes may need to expand and forge new models for industry relationships, including investing in more intense collaboration in areas such as research and development. This will be particularly important in training areas where the financial returns are highest, which will naturally attract greater competition.

In the face of competition, TAFE institutes will also need to demonstrate the benefits of training to learners. The prospect of good industry pathways will remain compelling, as will exposure to authentic industry settings as part of training delivery.

## Collaboration with other sectors, industry and learners

Competition will bring increased movement between sectors, necessitating more constructive partnerships between TAFEs, schools and universities. These partnerships could extend into co-delivery of qualifications, co-financing and sharing of expertise and human resources. Co-operation in areas such as recognition of prior learning will be critical.

Collaboration may need to expand beyond Australia's borders: with new governments, stakeholders and other international training providers.

The international education market, according to many, has changed forever. Overseas data and examples would suggest that while the international student market in Australia is not dead it is certainly fundamentally different since its high point five years ago. The model of attracting vocational learners to Australia is being challenged by changed visa requirements, which are likely to remain in place.

Earning a share of the international vocational education market will almost certainly involve local institutions investing in capability to deliver courses 'in country'. Whether it be China, India, Malaysia or Africa, significant additional supply is coming on-stream in those locations that will make attracting learners much more difficult. Local institutions that are able to customise their training packages for local markets, and deliver locally (or as part of a blended learning model) appear most likely to succeed. Given that Australia is serving as a model for India and China in vocational education, access to Australian courseware, personnel and other intellectual property is likely to have significant strategic value.

Australian VET providers will need to anticipate the skills required in these countries – as well as developing a feel for local delivery demands – to retain international students as a revenue source.

## Innovation across all aspects of the learner lifecycle

Not all new demands on providers are predictable. Overseas case studies have shown that being able to adapt to changing circumstances is critical. Training providers have a history of thinking and acting creatively to solve new problems within significant financial constraints. The early – but calculated – adoption of new technologies, processes, tools and policies will be important to achieve the systemic innovation required.

This is likely to be even truer in the coming decade, where providers will have to deal with the perfect storm of contestable funding, major shocks to the international education market and the unique demands of a new group of learners. Innovation to support learners from low socio-economic backgrounds, new industry partnerships and better collaboration between all players in the training ecosystem will be essential. The process of systematising innovation is far from straightforward, particularly given the pace of change in the training market. Learners and training providers overseas – and in Australia – are demonstrating that lateral approaches to old and new challenges can pay significant dividends.

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