

## **“RAISED VOICES OR RAISING VOICES? TAKING BUSINESS AT ITS WORD IN THE NEW VU”**

*Professor Elizabeth Harman, Victoria University*

Paper presented to the Australian Financial Review Higher Education Summit  
Melbourne, April 4, 2007

### **INTRODUCTION**

Australian universities are planning their futures in a global context. The global challenge of today is not technology, but how we live and work together as people. One of the people elements of the challenge is how the world and individual countries manage the relationship between education and the workforce, with all the attendant implications for economic, social and personal well-being. There is a severe demographic imbalance between countries with a disproportionately younger population, hungry for education and prosperity and those that are developed, ageing and hungry for educated younger workers to help maintain their prosperity. Australia is in the second category. China is in a group of its own having limited the size of its younger cohort, while still developing as a nation.

Australia faces the spectre of a post secondary education system that is no longer well equipped to meet the labour challenges. The fault lines are emerging in three ways:

1. skills shortages across a wide spectrum
2. changes in the workplace where technology is just one of a number of potent drivers, and
3. changes in the workforce as jobs morph, emerge or disappear. The focus on para-professional skills in the health sector is a current example of this.

Increased immigration is a partial, but only short-term answer to Australia's labour needs as Saul Eslake has pointed out.<sup>1</sup> Moreover, it raises the unattractive picture of Australia participating in a world which strips the educated populations out of developing countries in a manner which is neither ethically nor economically sustainable.

More and better education is the long-term answer. This is not however, going to be achieved by simply pouring more money into the Australian vocational education (VE) and higher education

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<sup>1</sup> Eslake, S., (2007), “Skills, training, productivity and economic growth”, presented at a Stakeholder Briefing hosted by the Hon Jacinta Allan MP, Victorian Minister for Skills and Education Services, February

(HE) sectors as they are currently operating. The education offered by our universities and TAFE colleges needs to be reviewed with the aim of refreshing their capacities individually and together, to be responsive to what is happening in the workplace, both at home and abroad. There is no quick fix and any number of hurdles to be overcome on the way if Australia is to reach a better place over the next few decades.

For a start, the task is a massive one that requires new knowledge based on a sophisticated and well resourced *research agenda* about the knowledge economy and its impact on global labour markets. Secondly, it requires a fresh look at *the effectiveness of current approaches to teaching, curricula and pedagogy* right across the Australian Qualifications Framework (AQF) range. Voices within the business community continue to express concern about both sectors and the readiness and attributes of their graduates. Young graduates are themselves more demanding. There is a new appreciation that graduates need to be not only work-capable but future-capable - ready to contribute to enterprise productivity with on-the-job innovations that will incidentally change their own workplaces and career prospects.

This is the context in which Victoria University (VU) has embarked on a project to reshape its own future titled *Making VU a New School of Thought* (or *Making VU* for short). Our aim is be known internationally not only as a university that has strong community values, but is uniquely attuned to the workplace and workforce of the future – and is prepared to challenge conventional thinking in the process. The university is reshaping its own approach to education and curricula across 750 courses and will take 3-5 years to complete the process, with implementation to start in 2008. This paper explores the opportunities, risks and implications of the path on which VU has embarked.

## **A STRONG MARKET NICHE FOR VU**

*Making VU* is a massive course and curricula transformation that is built around 5 commitments. The first of the commitments recognises that VU has education and training capabilities across 12 industry and community clusters and to invite business and community leaders to join *12 high-level Roundtables* to help guide the reshaping our work in these in the coming years. A second commitment promises that, with the help of business, every student will undertake a quarter of their learning ‘in context’ in the workplace and community. Later in this paper, the possibilities inherent in this strategy are explored with reference to such clusters as Transport and Logistics, ITC and Health.

The twelve clusters are:

**INFORMATION AND INFRASTRUCTURE**

- Construction and Civil Engineering
- Manufacturing and Mechanical Engineering
- Information and Communication Technology
- Transport and Logistics

**COMMUNITY WELLBEING**

- Health, Environment & Community Services
- Sports And Recreation
- Cultural And Creative Industries
- Education And Transition

**BUSINESS AND ENTERPRISE**

- Tourism and Hospitality
- Financial and Economic Services
- Law and Legal Services
- Marketing Services

If it succeeds, it will result in VU being a 'university of choice', measured by a rising share of first preferences and increased international student intake. The choice that prospective students make in favour of VU will be a very different one from that of the students who choose to go elsewhere. The most obvious comparison is with Melbourne University which is now well known for its own 'reshaping' project *Growing Esteem*. Whereas Melbourne will specialise in postgraduate education (shedding 8000 undergraduate places between 2008 and 2016), VU is a multi-sector provider and will take full advantage of this by offering an integrated suite of courses across the full AQF range and hence, the whole of an industry's supply chain. Whereas Melbourne will focus on disciplines and professions, VU (while continuing to respect disciplines and fields of study), will target delivery at the twelve industry clusters for which we have an established capability. Melbourne University students will enrol in a longer path to employment outcomes; our students can expect an employment outcome with their first award. The suburbs of Melbourne's west are an important catchments for both universities – and in future, we expect students, both in the west and internationally to choose VU over Melbourne for the very best of reasons – because they *want* what VU has to offer and excels in providing.

For success, the VU vision must have appeal not only locally, but in international markets. Like all universities, VU has a large international student cohort and local students are themselves often first and second generation migrants. The VU vision is however, a brave departure from the paradigms that operate in *both* higher education and TAFE in Australia and the university will need a sophisticated marketing strategy to promote the value of these differences.

For a higher education provider, VU has long been more willing to align education and training to the workforce and workplace, rather than to the discipline or fields of study that are the norm in higher education (it was a pioneer for example, in Tourism and Hospitality). The

alignment in future will be more deliberately adopted across the whole university and with the explicit intention of being coherent across the multiple sectors. This coherence will be informed by ongoing research and evidence. Each cluster and Roundtable will be provided with regular economic research on global trends produced by the VU Centre for Strategic Economic Studies (CSES). In fact, the VU vision is as much about the effective use of research to inform its strategic positioning, as it is about the positioning itself.

As a vocational provider also, VU is already well ahead of the recent calls by Minister Andrew Robb<sup>2</sup> to give students more opportunities to undertake more learning at work. VU will add value to this by evaluating what type of 'in context learning' works best for the 12 clusters for which we produce graduates. A new education research centre in workplace and vocational education will again provide the evidence that will give VU a quality edge in effective education and training.

### THE NEED FOR A 'NEW DEAL' WITH BUSINESS<sup>3</sup>

Central to all of this, is the challenge of persuading industry and community leaders that they have a unique opportunity to contribute their own 'voice' and know-how to shape this future for VU, our students and their prospective employers. The time is right. Australian universities are currently under strong pressure to be more responsive, not only to social aspirations, but also to demands in the economy for innovation and labour skills.

The 'raised voices' of business have been calling for education providers to be more

- **responsive**, more quickly, to labour needs that are limiting productivity, by offering new courses that educate graduates in response to demand (rather than responding slowly or being supply driven);
- **adaptive** to the changing nature of many jobs both locally and globally, by reconfiguring award, course and curricula offerings; and
- **willing** to provide graduates who combine theoretical and technical know-how with cross-disciplinary insights, communication skills and business acumen.

Employers told Graduate Careers Australia (GCA) last year that the top three qualities they valued were:

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<sup>2</sup> Maiden, Samantha. 'Plan for TAFE to go into worksites', *The Australian*, Friday March 30 2007, "The Nation" page 3.

<sup>3</sup> The term 'business' is being used here, but it is intended to convey a sense of employers more broadly. Within the project *Making VU*, the term 'industry and community' is used for a variety of reasons specific to the University's own context.

1. Interpersonal and communication skills (written and oral) – 57.5% named this as their top priority
2. Academic qualifications – 35.4%
3. Work experience – 27.6%<sup>4</sup>

Both of the main HE/Industry liaison bodies – the Business-Higher Education Roundtable (B-HERT) and the Business Industry Higher Education Collaboration Committee (BIHECC) have weighed into the debate. B-HERT's 2002 positioning paper *Enhancing the Role and Employability of Graduates* identified generic skills and graduate attributes as a vital issue for educational institutions and recommended further work on best practice educational approaches, employer values, graduate perceptions, and appropriate learning frameworks.<sup>5</sup> This was again the focus of attention at their recent conference on *The Business Graduate of Tomorrow* (March 2007), particularly in Fred Hilmer's paper. <sup>6</sup>Taking up the B-HERT suggestion, BIHECC has recently commissioned the Australian Industry Group to undertake a study on graduate employability skills. And Eslake (2007) points out that in an economic environment in which the unemployment rate is at a record low and employment is high, there are now a record proportion of businesses reporting labour shortages as a major constraint on growth.

VU, like all other universities, faces the challenge of responding to labour market trends and ensuring graduates are 'job-ready'. The 'raised voices' of industry have been telling us there are skills shortages and skills gaps, but we are still a long way from a shared understanding of how these are defined or what they mean for the way industries and universities go about their business – and conversely how universities and individual courses should respond. After all, not all labour markets and employers need the same thing.

## **UNDERSTANDING AND MEETING LABOUR MARKET SKILLS NEEDS**

GCA reports that the number of employers saying that they cannot access appropriately qualified graduates is increasing – from 49.3% overall in 2005 to 56.5% in 2006.<sup>7</sup> This is particularly the case in the construction, mining and engineering and communication and technology industries. Eslake

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<sup>4</sup> GCA, (2006), *Graduate Grapevine*, The Official Newsletter of Graduate Careers Australia, p 3

<sup>5</sup> Hager, P. and S. Holland et. al, (2002), *Enhancing the Role and Employability of Graduates: The Role of Generic Skills*, Position paper prepared for B-HERT, p 14 see <http://www.bhert.com/Position%20Paper%20No%209.pdf>

<sup>6</sup> Hilmer, F., (2007), "Business Graduates in a Global Context", presented at B-HERT Business Graduate of Tomorrow Conference, March

<sup>7</sup>GCA, p.2

tells us that skill shortages *are* harming growth in output in the Australian economy. Skill shortages are *not* detracting from growth in demand and therefore they are resulting in increased incomes for skilled workers, hence increasing income growth. In that sense, skill shortages may be putting upward pressure on inflation and the current account deficit. In 2005, the Federal Government announced the largest skilled migration program ever in Australia, with 97,500 places for permanent and temporary immigration of skilled workers. The Government argues that this continues to be only a supplement to its first priority, training the domestic workforce; however the TAFE and higher education sectors continue to struggle under current funding regimes, with little or no public investment relief in sight. The skilled migration program, which focusses particularly on skills need areas such as engineering, traditional trades, the health sector and accounting, is not a long-term answer. The training, education, employment and retention of local workers are the solution to skills problems. This is backed up by Eslake, who states that the only sustainable long-term solution is increasing the quantity and quality of education and training.

But the issue is not a simple one, and it calls for a sophisticated response. Over the past ten years, the cries of “Skills crisis!” have grown increasingly loud. But what is actually meant by this is still in need of unpacking. In her recent paper for the National Council for Vocational Education and Research titled “What is a skill shortage?” Sue Richardson points out that

we need to have a language that enables us to think clearly and to communicate unambiguously about what we mean when we use the term ‘shortage’<sup>8</sup>

The most audible voices telling us about labour market trends are employers themselves. We know that the global knowledge economy demands work-capable graduates. We know that this requires more emphasis on industry based learning and a more effective flow of ideas between industry and the university. But how much do we know about the actual nature of skills needs and how they vary by industry and therefore, by course? Richardson says not enough. Relying on ‘reported’ shortages is risky – shortages may be exaggerated by employers to avoid responsibility for making jobs more attractive to workers, or by unions in order to increase wages, or, more innocently, simply because there are differing interpretations of ‘shortage.’ Richardson argues that we need more sophisticated indexes of skills needs and a common understanding. Her paper proposes a four tier model:

- Level 1 shortage

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<sup>8</sup> Richardson, S., (2007), *What is a Skill Shortage*, Report for the National Council for Vocational Education and Research, p 14 see <http://www.ncver.edu.au/publications/1732.html>

- There are **few people** who have the essential skills who are not already using them and there is a **long training time** to develop the skills
- Level 2 shortage
  - There are **few people** who have the essential skills who are not already using them but there is a **short training time** to develop the skills
- Skills mismatch
  - There are sufficient people who have the essential skills who are not already using them, but they are **unwilling to apply** for the vacancies under current conditions
- Quality gap
  - There are sufficient people with the essential skills who are not already using them and are willing to apply for the vacancies, but they **lack some qualities that employers consider are important**<sup>9</sup>

Richardson's model adds some finer distinctions to the typology currently employed by the Federal Department of Employment and Workplace Relations (DEWR), which distinguishes between skill shortages (employers are unable to fill or have considerable difficulty filling vacancies), skills gaps (existing employees do not have the required qualifications or skills needed) and recruitment difficulties (particular characteristics of the industry or occupation make it difficult to recruit). Usefully, her model focuses much more on the nature of the skill requirements as well as adding a distinction around 'soft skills' ('quality gap').

Further, this is not just an issue for Australia. In the UK, the recently released Final Report of the Leitch Review of Skills, *Prosperity for all in the Global Economy*, emphasises the importance of 'economically valuable skills.'<sup>10</sup> The Report expresses concern that the focus in the UK on achieving 50% participation in HE by 2010 has been at the expense of engaging with employers and increasing workforce development and

tends to prioritise first full degrees and traditional undergraduate study, where funding levels are higher, ahead of part-time opportunities for employees and more focused high skills courses that reflect the needs of employers<sup>11</sup>

The Report argues qualifications can only be considered 'economically valuable' if they are delivering the skills that employers and individuals need and that therefore a demand-led approach to education and training is essential. The lesson being learned both in Australia and abroad is that

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<sup>9</sup> Richardson, p 14

<sup>10</sup> Leitch Review of Skills, (2006), *Prosperity for all in the Global Economy – World Class Skills*, see [http://www.hm-treasury.gov.uk/independent\\_reviews/leitch\\_review/review\\_leitch\\_index.cfm](http://www.hm-treasury.gov.uk/independent_reviews/leitch_review/review_leitch_index.cfm)

<sup>11</sup> Leitch Review, p. 67

the response of education providers must be well-researched, appropriate for particular labour markets, and effective. Universities take a risk if they re-tool course profiles and curricula without adequate homework – especially when courses and related staffing and teaching infrastructure are ‘sticky’ and change takes time.

## THE DEMAND FOR EDUCATION AND TRAINING

The 2005 DEWR study *Workforce Tomorrow* modelled the impact of population ageing over the next five years and found **a potential shortfall of 195,000 workers across the trades and professions**.<sup>12</sup> This will make significant demands on both education and training providers as demand increases for graduates. But there is also increasing awareness of the need for **retraining mature workers**. DEWR predicts that all major occupational groups are likely to be adversely affected, with particularly significant impacts at the trades, clerical, sales, and service worker levels, which are already areas of high demand. This has particular impacts for the VE side of the AQF. Programmes that are specifically designed to allow people to retrain for new careers have strong currency in this future. The overall shortfall means that as well as educating school leavers, we need to be able to ‘recycle’ mature workers. The Career Change Program offered for new entrants to teacher education at VU and supported by the Victorian Department of Education, is one example of an innovative response to this need. The Program enables suitably qualified professionals (including tradespeople, engineers, scientists, mathematicians and information technology professionals) to become teacher trainees in hard to staff Victorian government schools.

Skills needs are an issue for the entire post-secondary education sector (indeed, for the primary and secondary sectors as well, although that is an argument that will have to take place elsewhere). This is not just a HE problem. Skills needs are recognised right across a wide spectrum of industries and qualifications – from apprenticeships and trade skills through to HE qualified professionals. For any given industry, skills needs are having an impact along the whole supply chain and hence, the full postsecondary qualification range that serves that industry may be implicated.

“Levels of educational attainment do matter” says Eslake. For individuals, employment prospects improve and incomes rise with increasing levels of educational attainment. But they also matter for economies. Eslake states that analysis by the Organisation for Economic Co-operation and Development (OECD) suggest that an extra year of schooling lifts per capita gross domestic product (GDP) by about 6% and that this is supported by Australian studies which suggest that this would increase annual GDP growth by 0.5% per annum and ultimately increase the level of GDP by

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<sup>12</sup> DEWR, (2005), *Workforce Tomorrow*, p 3 see <http://www.workplace.gov.au/workplace/Category/Publications/WorkforceTomorrow-AdaptingtoamorediverseAustralianlabourmarket.htm>

8%. And yet participation rates in VET in Australia have declined and in apprenticeships and higher education have plateaued. We are performing poorly compared to other OECD nations, perhaps nowhere more starkly than in figures that show that since 1995 our public investment in tertiary education has fallen by 7% while other OECD nations have, on average, increased their funding by 48%. OECD data also shows that we rank 18<sup>th</sup> out of the OECD countries in terms of our quantum investment in education (at 5.8% of GDP).<sup>13</sup>

This is the Australian and global context in which VU is shaping its own future around the course and curricula changes that are part of *Making VU*.

### THE CHALLENGE FOR VU

There are many challenges in *'Making VU a New School of Thought'* – and VU is facing these head-on. Among the most critical of these is the challenge that the University faces in creating the 12 Roundtables. The intention is to 'raise the voice' of business and community leaders at VU in a way that eclipses anything so far achieved in Australian universities at the governance level (Council or Senate), by the course-based Industry liaison committees that are endemic across the sector, by professional bodies, or even within vocational education, by TAFE's Industry Training Councils or ITABs. We expect lively debates at VU about such issues as: the implications for academic autonomy versus 'corporate capture'; the role of Academic Board (the cross-sectoral ERB at VU) and governance more generally. Most fundamental of all is the question of what is in it for business? How do we attract and retain the opinion leaders VU needs to succeed?

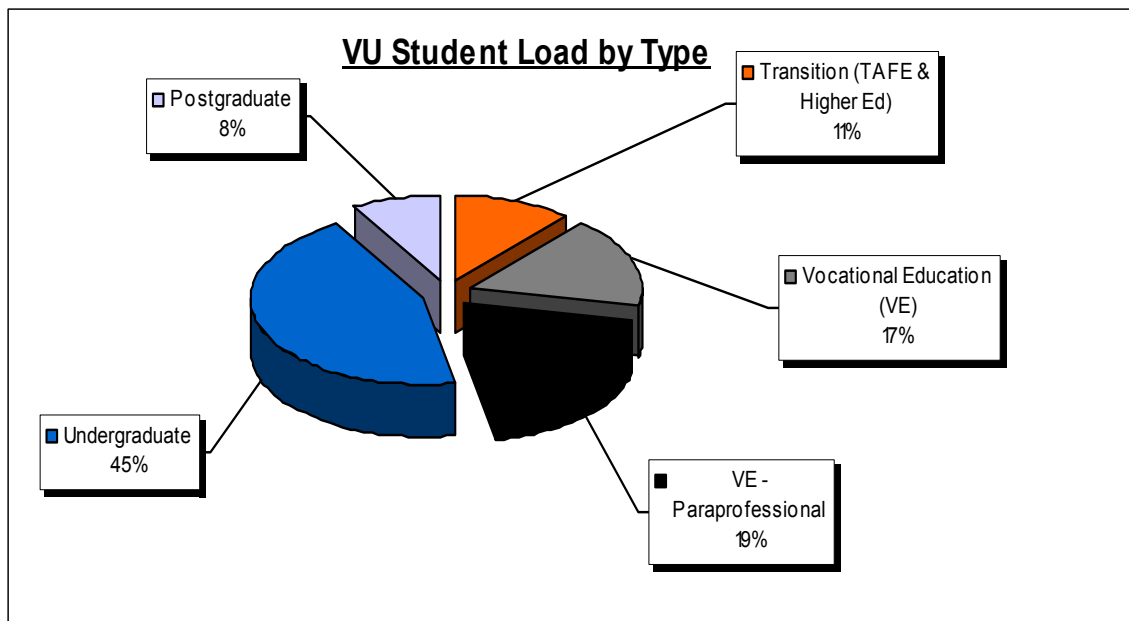
Our starting point is to provide not only a solid evidential base, but also some confirmation from enterprise theory that we are on the right path. While there is profound, and understandable, resistance within universities to seeing education as a 'business,' modern universities are in fact, complex enterprises – and a multi sector one like VU is more complex than most. **We are drawing on enterprise theory such as John Gattorna's work on supply chains and organisation change.<sup>14</sup> The university's core business is teaching and research; we have core products – courses; and we have core customers – students, employers and workplaces.** Each of the twelve industry clusters that VU serves has a supply chain, with educational needs across that supply chain – and VU has its own supply chain in the design and delivery of our courses – with the particular advantage that as a multi-sector organisation we can offer a coherent suite of courses across the full range.

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<sup>13</sup> OECD, (2006), *Education at a Glance*, p. 205-6

<sup>14</sup> Gattorna, J., (2006), *Living Supply Chains*, Prentice-Hall.

The VU cross-sectoral opportunity is shown in the figure below which illustrates the five broad AQF segments of training and education provided by the university.



This will not be easy. We have a large and diverse student body (45,000) and our data on student segmentation is far from perfect. Our 3,500 staff FTE work in Melbourne city; Melbourne's west; and overseas, especially in China. Convincing staff of the value of making their own changes to align the VU vision, is itself a challenge. Through our 42 schools and departments we offer 750 courses and 6000 subjects, many of which are more a legacy of past mergers than of course planning and design. We are now 'making sense' of this huge range of courses by recognising that our courses fall into twelve industry and community clusters. The University is not organised around these clusters, and does not plan to restructure to reflect them. The clusters are, however, a powerful tool for rethinking our course profile and planning approaches.

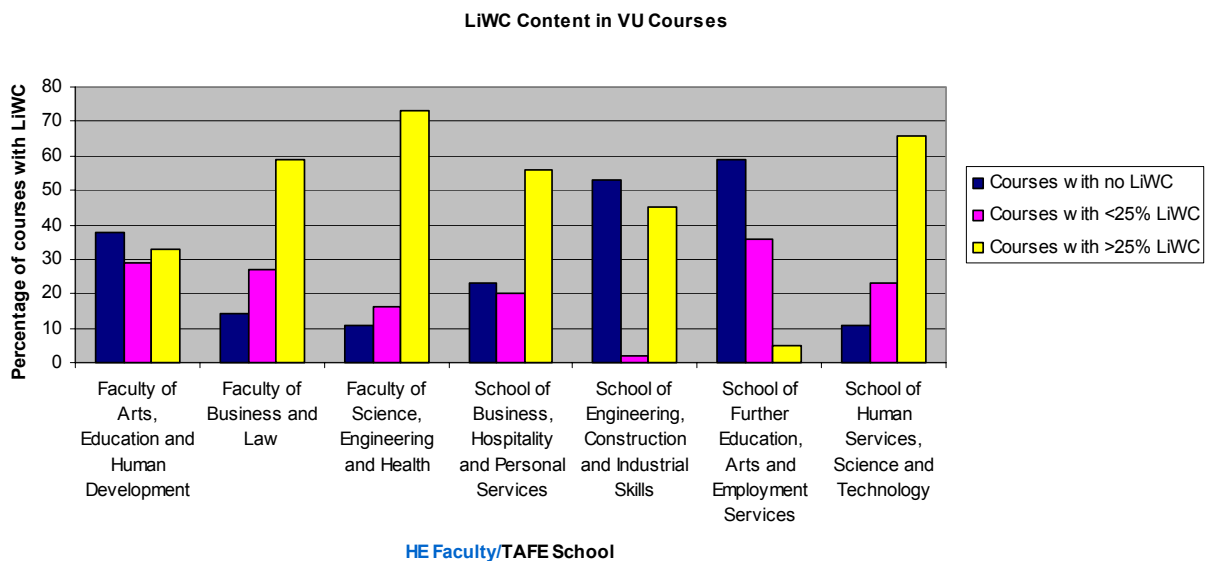
The clusters reflect our capability. Each cluster is possibly made up of an imperfect set of courses and curricula compared to the current and future needs of the employers who recruit VU graduates. Part of the challenge over the next few years is to reallocate resources from areas of low demand and poor fit, to areas of growing demand and a good fit of course graduates to current and future workforce requirements. VU has a major advantage in that we are a multi-sector institutions supporting Further Education, VE and HE awards across each of the twelve clusters. This offers a unique opportunity to work with business to re-align our course profile in each cluster **along the entire supply chain** – to educate for entry into trades, through to the jobs that are emerging in the global economy around 'paraprofessional' areas, through to postgraduate and executive education.

## REALIGNING COURSES AND CURRICULA – MAKING VU

The Council decision to undertake the changes associated with *Making VU* has launched VU on a journey to becoming a more confident and well positioned university that draws on past strengths but works towards future opportunities. The journey is being undertaken around five commitments. These are to:

1. align courses within 12 clusters and inform future development with input from high level business roundtables;
2. reshape curricula to include significant (25%) work and community based learning;
3. develop personalised learning packages (insofar as the aspiration can be managed in terms of effective resource allocation);
4. realign vocational faculties and research on effective pedagogy to meet new labour force needs; and
5. target three new initiatives to improve life in Melbourne's west in a way that supports, and is supported, by the other commitments.

VU is fully aware that Commitment Two will be hard to achieve to the level of excellence and outcomes that we are aiming for. Each industry cluster, profession and curriculum group works differently, and it will be an expensive process. Learning in the Workplace and Community (LiWC) taken to this extent will require a new infrastructure for relationship management and employers; new agreements; and new arrangements for sourcing funds from governments, students and employers. We are already delivering at least 25% LiWC some areas, including Engineering and Health, but have more work to do in others, including Industrial Skills and Arts. The extent to which VU is already well down this path – on a self report basis where the 25% is defined in terms of assessment related to LiWC, is shown in the figure below.



All of the commitments are linked to one another, but the supporting link between Commitments One and Two is particularly crucial. Two roles of the key roles of the Roundtables will be to advise on a more coherent course and award profile and advising on the design, sites of delivery, means to fund, and rollout of the 25% LiWC commitment. Roundtable members will be representatives of cluster employers and key partnerships and will reflect the VU catchment (both local and global, including international members). Of course, like all universities, we already have mechanisms for liaising with employers, including course approvals committees, program advisory committees and, in the case of VE, links to Skills Councils. These mechanisms are unevenly spread across VU and vary in nature. We will continue to respect the role of these bodies. At the same time, it is clear that they do not have the necessary influence to make change at the level we are now aiming for.

### **A NEW RELATIONSHIP WITH BUSINESS**

The task of reshaping Australian post-secondary education to meet the local and global needs of the workforce and its associated demands for new knowledge and pedagogy requires parts of Australian society to set aside their mutual disrespect and to work together cooperatively. I am speaking here of the relationship between universities and business on the one hand, and between HE and VE on the other. With some exceptions, both relationships carry quite persistent and corrosive undercurrents. There are ample rewards to be had if we can place the relationships on a better footing and work together to reshape the education-workforce paradigm.

Much of the focus of debates around the relationship between universities and business has been on the need for more business skills in university governing bodies and management. The Federal Government has been pushing this line by tying funding to compliance with the National Governance Protocols (which includes specifying the maximum size of the governing body and the minimum number of members with financial and commercial expertise) and through the Workplace Productivity Program, which funds improvements in finance, staffing, asset and information technology management systems. The rhetoric around *Backing Australia's Future* has always made quite explicit the assumption that if education providers, especially universities, were governed and managed in a "more business-like fashion"<sup>15</sup>, they would be better able to meet the demands of the business sector. Speaking at the Annual Conference of the Australian Higher Education Industrial Association (AHEIA) in March 2007, the Federal Minister for Education, Science and Training, Julie Bishop, characterised the university sector as "cloistered" in a "web of

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<sup>15</sup> Department of Education Science and Training, (2003), *Our Universities: Backing Australia's Future*, p. 15

last century's – or indeed 19<sup>th</sup> century – work practices” and its governing councils as “cumbersome in number and composition.”<sup>16</sup>

If our intention is to have a diverse set of universities that together serve Australia well, then the preoccupation with business skills on governing Councils may miss the mark. The future challenge is to bring the conversations with business much more directly into the discussions about academic life and coursework. We are not naive about the difficulties. This will require a respectful dialogue in both directions. Australian business interests may not understand or appreciate the traditions of academic autonomy, self-accreditation and scholarship that have served to protect the academies from ‘industry capture’ and from the short term commercial objectives that threaten the resources devoted to more fundamental and enduring forms of knowledge. Conversely, academics who have had little exposure to life beyond the classroom, laboratory or office, can find it challenging – even threatening – to be asked to engage with the workplaces to which their students aspire.

VU's Roundtables will have a real voice. Where the influence of course liaison committees, industry skills councils and professional bodies is generally limited to the course or school/department level, it is open to VU to provide for direct channels of communication to VU's Education Research Board and Council. The university is also in the process of establishing 12 parallel internal Cluster Coordinating Committees (CCC) that will bring together the staff from all sectors who serve the same industry and community employers. Both the CCC and the Roundtables will be provided with a stream of data about the VU-workforce relationship that has not previously been available. This includes:

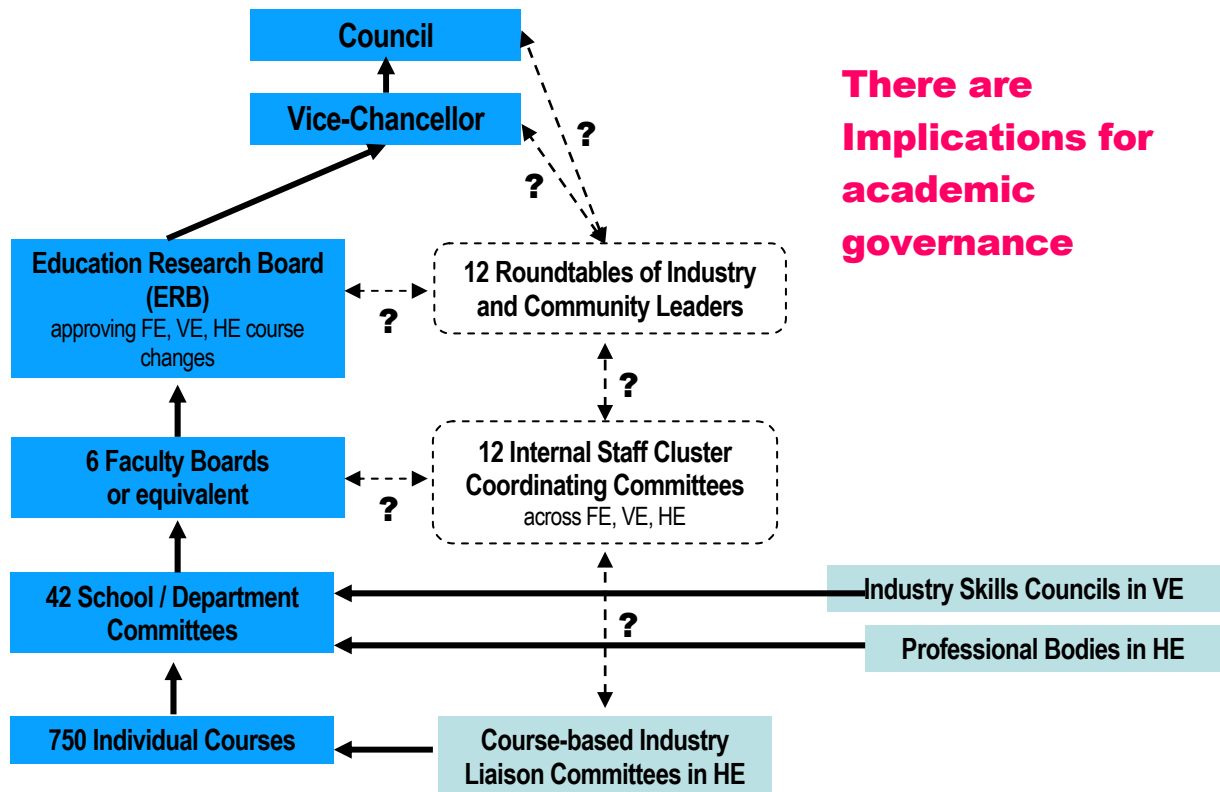
- Cluster workforce trends and implications for education (CSES Report)
- The course profile for the Cluster across FE, VE, HE and indications of gaps, duplication, strong and weak demand, keeping in mind the whole workforce and education supply chain for the particular cluster
- Any papers relevant to a future ‘vision’ for VU course positioning for the cluster of parts of it that already exist
- The current student profile locally, in Australia and overseas
- The delivery sites on and off-campus
- Over time, we expect that the evaluations of student outcomes for LiWC and employment will also be provided to the CCC and Roundtable by VU's new Centre for Work-based and Vocational Education. This is to be given a mandate to track the pedagogical effectiveness of the LiWC commitment.

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<sup>16</sup> Bishop, J., (2007), speech at the AHEIA annual conference, March, see <http://www.dest.gov.au/Ministers/Media/Bishop/2007/03/B00115032007.asp>

It is immediately apparent that the creation of the CCC and the Roundtables opens up important questions about the means by which the university might align resources to the 12 clusters. This issue, together with other fundamental ones for academic governance have yet to be fully debated with the university. These are illustrated by the question marks in the figure on the next page.

### OPPORTUNITIES FOR A NEW RELATIONSHIP



What's in it for the Roundtable members? We will have to make a strong case – particularly in those clusters where VU competes with others for the attention of business leaders. There are some obvious immediate benefits, such as getting first pick of our job ready graduates. But there are also some less obvious benefits to be derived from having direct input into the production and dissemination of knowledge in the context of a global knowledge economy. VU will offer the Roundtables an evidence base from which to improve the fit of course graduates to the short, mid and longer term needs of business. This will be built on work around labour and education markets undertaken by the CSES and on effective learning and pedagogies undertaken by VU's new Centre for Work-based and Vocational Education.

The Business Council of Australia (BCA) has recognised industry involvement in education, skills and innovation with their 2005 report *New Concepts in Innovation: The Keys to Growing Australia*.<sup>17</sup> The BCA is calling for Australia to be an 'innovation nation', focussing particularly on education and training systems "so that individual skills and capabilities for innovation success, such as lateral thinking and teamwork, can be better developed in the workforce."<sup>18</sup> Similarly, organisations such as the International Specialised Skills Institute (ISSI) are calling for a recognition of 'skill deficiencies', with a particular emphasis on the full range of skills, knowledge and insights underpinned by design and innovation.<sup>19</sup> By being involved at the course design level, business can have direct input into the skills VU graduates come out with. It is a way for business and universities to work *collaboratively* to address skills needs, rather than blame shifting. If what industries now need are more innovators, paraprofessionals, and supply chain experts then they need to be at the table telling us about it so that we can design the right courses and qualifications. Moreover, if they are at the table, they have the opportunity both to get the 'course product' they want and to have access to the information we gather about current and future industry and labour market trends.

### SOME EXAMPLES OF CLUSTERS AND ROUNDTABLES

As an example of the kind of research input that will go to our ICT cluster Roundtable, we know that changes in the logistics and manufacturing sectors are having a flow on effect to ICT – specialisation and outsourcing along the value chain makes manufacturing supply chains more complex and their coordination more challenging. In services, the rapid globalisation and "off-shoring" of a range of IT and IT-enabled business services (including research, technical and design services) is unprecedented in its speed and scale of potential impact. Australia's ICT producing industries are relatively small, but there are significant niche strengths in ICT manufacturing (e.g. medical instruments, automotive electronics and photonics). However, the main focus is on services, software and content. In addition, Victoria is home to significant ICT industry and capability clusters around such design and innovation intensive areas as computer games and content and movie animation and special effects.

Demand for ICT skills has been highly cyclical in recent years, creating a significant challenge for educators. Demand for ICT skills will always be linked to the business cycle, but the combination of the "Y2K Bug" and the Internet boom and bust a few years ago created an extreme cycle. The aftershocks of this 'boom and bust' cycle are now subsiding and demand for ICT skills is likely to

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<sup>17</sup> BCA, (2005), *New Concepts in Innovation: The Keys to Growing Australia*, see <http://www.bca.com.au/Content.aspx?ContentID=99520>

<sup>18</sup> BCA, (2006), *Annual Review 2006 Passing on Prosperity*, p. 18

<sup>19</sup> ISSI, (2007), see <http://www.issinstitute.org.au/about/about.html>

remain strong over the next 5 years – unless the economy falters unexpectedly. In particular, the resources boom is bringing an upturn in demand for ICT skills in the mining and energy sectors and in related engineering services directly, as well as in the ICT services industries that supply them. ICTs are evolving rapidly, making it extremely difficult to predict future demands for specific skills and inevitably resulting in (short term) Level 2 skills shortages. Nevertheless, some things are clear and should be underpinning workforce planning. In Australia, ICT skills demand relates more to the application and use of ICTs, and to related support, than to ICT product development *per se*. As a result, there is increasing need for those with ICT skills to also have an understanding of the context of application and user industries. More generally, there is a need for those with ICT skills to have generic business and inter-personal communication skills. The offshoring of the lower rungs of the “traditional” career ladder means that we have to equip people to leapfrog the lower rungs of the career ladder and join the workforce at a higher level. Again, this implies the need to combine ICT skills with generic business and communication skills.

In the case of our Manufacturing and Mechanical Engineering cluster Roundtable, we would be looking at the way in which like other developed economies such as the US, the Australian economy is seeing a shift away from manufacturing and towards services. As a consequence, the number of engineering degrees in the US, Australian and European economies is declining at the same time as it is growing significantly in countries such as China. India too is expected to increase its share of the global engineering services market from 12% to 30% by 2020. This could result in an increase in demand for Australian training by overseas students at the same time as demand for Australian resident engineers continues to decline. Domestic students continue to abandon manufacturing based courses such as industrial, mechanical and chemical engineering in favour of electronic and computer engineering and mining engineering, the latter of which is buoyed by the current resources boom. Australian institutions need to anticipate these changing domestic preferences while continuing to cater for the increasing numbers of overseas students requiring the traditional manufacturing related courses. Meanwhile, there will continue to be niche opportunities for Australia around science and engineering **innovation** opportunities such as new energy technologies, water, and environmental management.

### **EARLY PROGRESS TOWARDS VU ROUNDTABLES**

VU has some strong courses that are recognised nationally and internationally and have local and international alliances in our Tourism and Hospitality cluster. This will be one of the first Roundtables to be established. Others that are early contenders build on our shared interest with business in Melbourne’s west. One example is our work through our Institute for Logistics and Supply Chain Management (ILSCM), which links the West with the world by thinking of the West as a laboratory

for developing knowledge in economic and social spheres relevant both to the West and the rest of the world in the context of a rapidly changing global knowledge economy.

The Transport and Logistics cluster Roundtable will be another of our first Roundtables. As an enabler of other industries, distribution and logistics is an increasingly important source of competitive advantage for firms, local and national economies. ICTs are now playing a central role in the industry, with e-commerce, e-business solutions and digital delivery having a substantial impact on transport businesses and warehousing and storage. Globalisation and increased competition are having a major impact, including

- shorter order cycles;
- demands for smaller, more frequent, more reliable deliveries;
- more varied delivery patterns related to product shelf-life, product customisation, production and retailing strategies and the reliability of short-term forecasting;
- closer relationships between customers and logistic services suppliers, often with fewer suppliers;
- outsourcing of logistics to third party logistics managers, allowing firms to share distribution facilities; and
- greater use of recycling and managed disposal, which has resulted in additional back-haul cargoes (i.e. reverse logistics).

E-commerce, supply chain management related e-business solutions and digital delivery are all transforming the way in which logistics businesses go about their activities and services. In addition, the rise of B2C (business to customer) e-commerce has meant that many wholesale distributors now have direct relationships with the end customer. This brings new transport and delivery demands, for example a re-orientation from bulk to small package delivery. Other new demands are created by the adoption of new production practices (for example, just-in-time delivery) and the development of new business models (eg. flexible customisation and built-to-order). Again, this requires smaller, more frequent and time sensitive delivery, as well as much greater track and traceability systems. Traditional warehousing has become more about handling than storage, a much more fluid process. Increasingly, the provision of sophisticated distribution and logistics services requires a range of information systems, such as vehicle routing and scheduling, track and trace, warehouse management, performance reporting and payment processing, as well as their integration into e-business solutions, e-commerce and digital delivery mechanisms.

This means that skills in particular demand, which the education sector is not yet catering well for, are a combination of ICT, supply chain, and core distribution and logistics skills, along with communication skills. VU's current capabilities range all the way from training forklift drivers to high

level logistics research. But there a range of points along the continuum between these two extremes that we are not yet covering. Our Transport and Logistics Roundtable will enable us to 'retool' our offerings to better fit the skills needs. The Roundtable will be chaired by John Gattorna.

Other alliances are building momentum. For instance, in our Sport and Recreation cluster, a unique alliance of interests around the Footscray sports precinct investments includes State Government agencies, VU, the Western Bulldogs AFL Club, the Victorian Institute of Sport and a wide range of sport codes and education and research facilities from school to university level. The Sports Triangle Mr David Smorgon, OAM, Chair of the Bulldogs, has agreed to be a founding member or Chair of the Roundtable. The Sports Triangle – comprising new \$80million investment in new facilities at Maribymong College, VU and the Whitten Oval - will give Footscray a centre of excellence, something this community can take pride in and use to leverage the investment needed to re-generate a tired physical environment.

The Health Environment & Community Services cluster will benefit from another emerging alliance - this is a consortium that is creating the Australian Community Centre for Diabetes (ACCD) in Melbourne's west. The West is one of Australia's 'hotspots' for diabetes with an incidence that is 16% higher than the Melbourne rate. VU is committed to working with an alliance of partners in a major community initiative to improve outcomes. The centre will simultaneously be a site at the VU St Albans campus for a wide range of student learning opportunities and for members of the VU Health cluster and Roundtable. This alliance aims to redress one of the obvious disparities faced by the West – poor health outcomes and access to health services and bring about the necessary changes in lifestyles and behaviour to ensure well-being in the homes and workplaces of the West.

### **BY 2016...**

By 2016, VU will be

- an **international** university with strong **community** values
- uniquely responsive to the changing nature of **work and the workplace**
- providing **every student** with a confident path to a **career of the future** and the opportunity for a good job even before they graduate
- making a real difference to the lives of people in Melbourne's west as a **catalyst for knowledge** transfer between **the west and the world**
- challenging conventional thinking as **A New School of Thought**

If we succeed, we will have successfully negotiated a new relationship with business and a re-imagining of academic governance. The benefits will flow to the Australian education and economy, and into global education and workforce development. VU and I believe universities more generally,

will be strengthened by the journey on which we have embarked. As David Eastwood has commented in speaking of UK universities (my paraphrase of his comments in a Conference presentation)<sup>20</sup> - instrumental and utilitarian values are becoming more salient for university missions. Given this, the onus is on the sector to continue to nurture the fundamental values of knowledge creation and dissemination that help to transform the lives of people – and in so doing, contribute to the economic, social, cultural and civic life of our communities. The journey for VU will not be easy but the rewards are worthwhile. As our marketing agents have described it – ‘May the Workforce be with you!’

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