



**Australian Services
Roundtable**

Skills to Secure Australia's Place in the Global Services Economy

**Submission to the Bradley Review of
Australian Higher Education**

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EXECUTIVE SUMMARY AND REFORM PRIORITIES

The Australian Services Roundtable supports the Rudd Government's emphasis on Education to reinvigorate Australian productivity, and welcomes the Bradley review in response to concerns about the future direction of Higher Education in Australia. Reform is indeed required if Australia is to build the knowledge-intensive skills base required to secure its place in the global services economy.

Education, along with Tourism, sits at the top in terms of Australia's services export performance. In 2007, services exports were worth \$48 billion, with education exports worth \$12.6 billion.¹ Over the past decade and a half, Australian Higher Education institutions have shown remarkable adaptability and strength in graduating increased numbers of Australians and realising a world leading position in the overseas student market, while receiving decreased Commonwealth funding.

While acknowledging the immeasurable and ongoing importance for Australia of this strong export success story, the Australian Services Roundtable also draws attention to a deep concern in other services exporting industries that their own requirements for knowledge – intensive skills are not being met by our Higher Education institutions.

Anecdotal business evidence, and the current scarcity of professional skills, together suggest that the attention being given to exporting education services may be "crowding out" our interests in exporting a range of other knowledge-intensive business services, including financial services, IT services and engineering services to name only a few.

At the Financial Services Hub Summit in July 2008, for example, overcoming both University and TAFE level skills shortages and building the required education infrastructure, were identified as integral parts of the strategy required to develop Australia as a major financial centre.

Services, including education, dominate the Australian economy. The services sector generates the vast bulk of Australia's GDP and productivity growth and employs most Australians, including most Australian Higher Education graduates. As Jim Spohrer (IBM 2007) has described it; "the shift to services represents the single largest labor force migration in human history." But despite the success on the education front, Australian services firms are still underperforming on the export front.

A continuation of the current policy framework and funding levels cannot in our view deliver the expertise needed for Australia to improve its overall

¹ DFAT – Trade in Services 2007

performance and become successful in the global market across a broad range of services industries.

One might conceivably argue that this perhaps doesn't matter; that exporting education services will perhaps prove to be Australia's long term niche expertise, accepting that other knowledge-intensive services sectors will diminish.

But this line of argument is problematic if the objective is to retain and build opportunities for a diversity of local services employment. Globalisation is already taking services work as well as talent offshore and this trend will accelerate. To keep our workforce fully employed in worthwhile jobs, in this country, our big challenge is to make Australia a preferred location for a range of services activity across all services industries.

There are, moreover, signs that Australia's export education performance may slip. The global market for education services is highly price sensitive and increasingly competitive; quality, including in the research stakes, plays a critical role in attracting the non-resident student clientele. Australia has recently been losing market share, including in Asia. We believe that to retain competitiveness, Australian Higher Education institutions will need to shift in innovative ways from their current business model, including a greater emphasis on e-learning and establishment of Australian campus's offshore.

For Australian Institutions to grow their activities in these new areas will require focused all-of-Government attention to reducing barriers offshore to doing business. Education Services have already become an important aspect of Australia's Free Trade Agreement objectives and the Australian Services Roundtable fully supports this thrust.

Complementary to the Australian Higher Education sector's role in the nation's export performance, our Higher Education institutions play a critical role in the National Innovation System.² Most importantly, our Higher Education institutions provide the essential skills needed throughout the Australian economy, skills essential to our productivity and export performance, our standard of living and societal wellbeing. In this submission, while we touch on trade and innovation issues where relevant, our focus is on the current and future skills requirements of the Australian services sector.

Recognising Australia's federal system, all Australian governments will need to assist in the reform of higher education.

²See the ASR Submission to the Cutler Review on the National Innovation System. <http://www.servicesaustralia.org.au/pdfFilesResearch/ASRSubmissionInnovation.pdf>

ASR's priorities for reform in Higher Education include:

- (1) It is essential, if we are to attract a greater share of global services work onshore, to ensure deeper policy support, including HECS HELP places, for new globally-relevant integrated courses in areas such as financial services, information technology, services science, engineering, accountancy and other key services industry disciplines, consistent with industry needs; the courses must be supported by expert staff, curricula and resources at world competitive levels.
- (2) Boosting the quality and reputation of Australia's overseas student Higher Education market, and hence our export performance, without 'crowding out' other Australian socio-economic interests, especially with respect to development of local skills for other important knowledge-intensive services activities.
- (3) The role of Higher Education must be fully recognised within the National Innovation System, including all aspects of teaching, scholarship, research and industry collaboration. The Higher Education institutions must be equipped to implement the priorities of the National Innovation Councils.
- (4) Australia needs better, more systematic information on Australia's knowledge-intensive skills requirements and availability, developed in consultation with the professional bodies and other industry stakeholders as well as the Higher Education institutions, for dissemination for use by students, institutions, professions and government in their planning and decision making.
- (5) We need a new policy framework for Continuing Education that encourages greater investment by institutions, individuals and industry stakeholders, and recognises the role of Universities, TAFE, private education providers, and the professional bodies.
- (6) Less prescriptive regulation of Higher Education inputs and greater focus on outcomes such as international competitiveness in research, teaching, course resources and equipment; industry engagement; compliance with international certification standards including those of the professions; graduate employment measures etc.
- (7) We call for bigger efforts on the part of Higher Education institutions, professional bodies and other industry stakeholders for work integrated learning in all areas of Higher Education, not just the most obviously vocationally oriented courses.
- (8) We seek an environment more conducive to industry engagement in Higher Education, including removing the fringe benefits tax on employer contributions to HECS HELP loan repayments for post

graduate study, and introduction of an Education and Training tax concession.

1. Building World Competitive Expertise

Globalisation is transforming our services industries, putting a premium on specialisation and expertise. Higher Education needs to respond faster for Australia to realise new opportunities in the rapidly growing, high value added knowledge-based services industries.

Many of Australia's knowledge-based services industries are already successful exporters and are further developing export strategies. But there is intense competition for the opportunities being targeted by Australian industry. And there is an acute shortage of relevant skills in Australia. Many of Australia's competitors, meanwhile, deliberately integrate Higher Education into their services export strategies.

The Australian Services Roundtable considers that a top priority issue in any national services export strategy for Australia, must be to expand the local availability of skilled personnel. The Australian Services Roundtable therefore recommends that, consistent with industry needs, policy support including HECS HELP places, should be provided for new or substantially enhanced courses in areas such as financial services, information technology, services sciences, engineering, and other key services industry needs including in the arts and humanities.

The policy framework should focus on delivering world competitive outcomes, recognising that this may involve cooperation between institutions and/or increased concentration of resources as well as enhanced industry engagement and support.³

An Example; Information Technology

The number of IT graduates in India and China is escalating rapidly, with more than 600,000 IT and engineering graduates added to the labour pool each year. By contrast, from 2002 to 2005 the number of IT enrolments of Australian resident students fell by 29%, which another fall of 18% in 2006. Drops of 14% and 17.6% were recorded at the University of Sydney and Monash University respectively for 2007 compared with 2006.

³ Engineers Australia in their submission notes that: "the diffused nature of engineering schools in Australia limits their ability to devote significant resources to new courses in response to the emergence of new technologies and fields", and recommends a priority setting exercise to facilitate amalgamations that could free up resources for needed specialisation of course offerings and research. The need for curriculum renewal is also highlighted in the submission by the Australian Joint Accounting Bodies.

Surely this is evidence of a national crisis in Higher Education in IT? Even if action is taken immediately, given the extremely low current level of IT enrolments, Australia will be reliant for the next few years and possibly for an extended period, on other means of obtaining offshore IT skills. Meanwhile Australia's competitors in Asia Pacific are rapidly increasing the quality and expertise of their IT Services personnel. Australia needs to catch up. If not, the shortage of relevant skills in Australia will permanently dampen Australia's IT Services export opportunities.

The Solution; Services Science Expertise

Growing appreciation of the importance to the Services sector of combining technological and non-technological innovation has led to the concept of *Services Science*. This new curriculum integrates the disciplinary knowledge and methodology of computer science, engineering and design, business strategy, operations research, social science and law, to create novel service offerings. The United States government considers this new discipline so important that Congress recently passed legislation addressing the issue.

Several Australian Universities have embraced the *Services Science* concept but it needs to be promoted much more widely. Sydney University has initiated a Service Science Management and Engineering course within its Masters of IT program that includes modules in Services Management, Services Modelling, Services Marketing, Services Governance and related business/technology subjects. Other Australian universities initiating courses with similar content include Deakin University, RMIT, Wollongong University, University of NSW, University of Melbourne, Macquarie University, UTS and QUT.

To provide incentives to other Universities to develop such programs, Australia could allocate Commonwealth supported HECS HELP places for service science programs within the IT funding cluster. Similarly, the Vocational Education and Training system should collaborate with industry to develop new interdisciplinary training programs focussed on Services skills.

On the research front, the number of projects combining science, management and engineering that received ARC grants increased by 11% between 2004 and 2007, representing a 47% increase in funding. This increase is in the right direction, but it is from a very small base. Much more needs to be done.

2. Growing Education Exports without 'crowding out' effects

Income from overseas students has been the main source of growth for many Higher Education institutions over the past decade. There is a danger that the interest in increasing revenue from overseas students could be at the expense of broader Australian export interests.

There is no doubt that there are economic benefits to Australia from overseas students. They provide diversity and international engagement to our campuses; they have helped provide critical mass for some of our technological courses that lacked sufficient qualified Australian applicants to have been otherwise viable; they have established a cohort of well qualified and capable people that have quickly risen to positions of authority in their home countries that know and understand Australia well; and they address Australian skill shortages as significant numbers of overseas students move to 457 visas to stay in Australia following graduation.

Quality issues have, however, been raised by Australian employers as overseas students have increasingly been targeted to fill current skill shortages. The employability issues seem to be worse where foreign students dominate particular classes, and where little regard has been paid by the Higher Education institutions for student needs to develop a high level of communication skills to be effective in a professional work environment.

Work integrated learning is likely to be of particular benefit for foreign students in improving their employability skills; and while, there are challenges, higher education institutions need to be more active in addressing this issue.

Concerns have been raised by industry stakeholders that institutions faced with making significant investments in upgrading courses to meet contemporary Australian standards have found it more profitable to invest in attracting less discerning foreign students.

There are signs, meanwhile, that Australia's export education performance may slip. The global market for education services is highly price sensitive and increasingly competitive; quality, including in the research stakes, will continue to play a critical role in attracting the non-resident student clientele. We believe that to retain competitiveness, Australian Higher Education institutions will need to focus on quality improvements. They will also need to shift in innovative ways from their current focus on Mode 2 exports of education services (ie attracting non-resident students to institutions here in Australia) to greater emphasis on Mode 1 delivery of services via distance e-learning) as well as Mode 3 (establishment of Australian campus's offshore) and Mode 4 (temporary stationing of Australian educators and curriculum consultants offshore).⁴

⁴ Services are delivered internationally in 4 distinctly different ways:

*Mode 1 – Cross-border supply: the service itself flows from the territory of the exporter into the territory of the importer, usually transmitted via telecommunications;

*Mode 2 – Consumption abroad: the services consumer travels temporarily into an exporting country's territory to obtain a service abroad;

*Mode 3 – Commercial presence: a services provider establishes a local presence, including through ownership or lease of premises, in another country's territory to provide a service in that market;

*Mode 4 – Movement of natural persons: the services exporters travel

For Australian Institutions to grow their activities in these new areas will require focused all-of-Government attention to reducing barriers offshore to doing business in these modes. Education Services have already become an important aspect of Australia's Free Trade Agreement objectives and the Australian Services Roundtable fully supports this thrust.

3. Stimulating Innovation

The Australian Services Roundtable submissions to the Cutler Review of the National Innovation System and the Mortimer Review of Export Policies and Programs both recommend establishment of a Services and Innovation Competitiveness Council.

Policy needs to be established to support implementation within Higher Education institutions of the Innovation priorities set by the industry Innovation Councils, not just in relation to research projects, but across the full range of Higher Education engagement in Innovation, including support for hubs of expertise required to realize export.

In addition to its teaching and skills development role, Higher Education contributes to Australian Innovation through scholarship, academic research and collaborative work with industry. All three are important, and all three contribute to and enrich the primary education and training function.

Scholarship that tests, defines and describes the boundaries of knowledge and helps prioritise new fields for investigation is a key role for Higher Education in Australian Innovation, and should be explicitly valued by Higher Education institutions.

Scholarship is a necessary part of teaching at the University level and highly valued by industry. Some Universities have done an excellent job in facilitating industry access to their expertise, for example through their websites and industry engagement strategies more broadly.

Academic research, ie research aimed at publication in the academic journals, also has an important role in Australian Innovation. Quantitative measures of academic research quality, such as through citation analysis, has resulted in academic research becoming an important indicator of the quality of Universities and their Faculties, both within Australia and internationally. It is important for Australia to maintain internationally ranked institutions, faculties and staff in at least the world top 100 and even in key disciplines the top 50.

temporarily to the territory of another country to supply a service.

The increasing research capabilities within Asia poses a challenge for Australia in maintaining its world standing, and inevitably some concentration of research resources will be needed. Without the profile and access provided by a high world ranking, in some disciplines Australia would risk the tyranny of distance relegating our research community to the periphery of world research community. Innovative ways need to be found to achieve this greater level of research concentration through linking and cooperation between institutions.

Australia Higher Education institutions have always been required to make decisions on key academic disciplines in which they can most recently contribute in a leadership role within the world research community and those where their role will reasonably be more minor. With the growth in academic knowledge and the number of disciplines and sub-disciplines, such decisions are having to be made more often.

A narrow focus on academic research metrics should not be the main driver of these decisions – the links between academic research and teaching quality and industry also need consideration. A focus on research capacity building in isolation of its broader role within Higher Education would limit its contribution to Australian Innovation.

It is reported, for example that at some US research Universities undergraduate students never see the eminent faculty members that may have attracted them in the first place. Higher Education research has a primary role in enlivening and enriching the teaching function and equipping a new generation of Australians with a real understanding of research. This is relevant not only in the sciences and technologies but across all disciplines, including the arts, social sciences and the humanities.

The benefit for the services industries of academic research, beyond its role in developing Australian expertise and providing access to world expertise, is difficult to estimate accurately and is often dismissed. Innovation in the services industries tends to take place specifically at the point of interaction between services provider and the client and while academic research may inform this interaction it is typically not directly involved.

There has been an inclination for policy on academic research to attempt to 'reward' apparent industry relevance at a specific project level. Industrial research projects are governed by a distinct set of parameters, and attempting to meld these with academic research can risk producing both poor quality academic and industrial research. Inappropriate application of industrial relevance criteria can inhibit academic research on such projects.

Academic research is traditionally published in and only available through very expensive academic journals that are hard for people outside of research institutions and large companies to access. Some of the leading

academics have sufficient market power to persuade journals of the merits of permitting free, internet accessible, versions of their articles, but this is not generally possible. Recognising that there are practical and intellectual property right constraints, the Australian government should use its leverage to ensure that there is greater public access to the on-going work and research findings of publicly funded academic research in Australian Higher Education.

Collaborative Work with Industry is a critical and undervalued aspect of Higher Education's contribution to Innovation. Given Australia's high relative number of small businesses, and our geographic isolation, the Australian Services Roundtable believes that Australia's future success in knowledge-intensive services exports will depend on improved collaboration between the private sector, academia and Australian Governments.

There is a small, but not insignificant, amount of research undertaken by Universities aimed at achieving commercial as distinct from specifically academic outcomes. It is the view of the Australian Services Roundtable that this research should be encouraged ie industry funding received by Universities from commercial collaboration and business consultancy income should be matched by Government funding. Public sector R&D is likely to remain largely focused on products rather than services until this bias against industry funding is rectified.

The Science Industry Association has produced a "Proof of Concept" checklist for commercialization units of Universities to implement in providing guidance to commercial research undertaken by University staff. Academics that undertake research in line with the checklist should receive recognition within academic reward and promotion processes and metrics associated with the checklist would be helpful in monitoring, assessing and improving commercial scientific research within Universities. The Australian Services Roundtable recommends implementation of the Proof of Concept checklist by all Universities.

There is often a substantial lag in having best practice adopted widely in industry. Skills innovation to address this lacks support in Australia, despite its clear relation to productivity growth. In Europe, skill institutions collaborate broadly with industry, to enable innovation and skills development at a research level. This component is missing from Australian education, and limits industry involvement unless specific public private partnerships are established (eg the WA Challenger TAFE Institute, and its PPP for an Oil and Gas Institute). Such structures could be further facilitated by higher education involvement in the CRC system, yet TAFE is limited in this framework. The Australian Services Roundtable supports the position of TAFE Directors Australia on this issue.

4. Developing a Skills Data Base

For the most part, Australia has a decentralised, market-based approach to skills development, including within Higher Education. Markets, however, work better with better information. Yet there is a paucity of information on projected skills requirements and availability for many services industries including a number of the professions. This information gap needs urgently to be addressed.

The Australian Services Roundtable has been calling for the Rudd Government to partner with the industry in a major Services Stocktake including with respect to services skills requirements.⁵ We support the idea of a map collation of information on Australia's knowledge intensive labour market needs in consultation with the professions, Higher Education institutions and industry stakeholders, disseminated publicly for use by students, institutions, professions and government in their planning and decision making.

The fact is that globalisation is complicating our labour markets. International demand is contributing to the current Australian skills shortage; a quarter of the members of Australia's accounting and engineering professions, for example, are working overseas. We need to understand better what is going on and why.

5. Support for Continuing Education

In advanced knowledge-based economies skills need constant refreshing as technologies and careers change. There are many providers of post-first degree education in Australia, including the Universities and other public and private Higher Education institutions, TAFEs, and professional bodies.

We accept that the degree of private benefit and capacity to pay is generally higher for continuing education and therefore the degree of public subsidy may be justifiably less than for the first degree. Nevertheless, Australian competitiveness in the knowledge-intensive services is dependent on a greater investment in continuing education and this is unlikely to come from individuals alone. Certification in many professions, in accord with international practice, requires a commitment to on-going education and refresher courses. At present there is no clear set of policy principles covering the degree of public support for continuing education that applies to the full range of providers and the various types of education.

In particular, it is becoming more common for students to undertake a generalist degree and top that up with a vocational or professional

⁵ See <http://www.servicesaustralia.org.au/pdfFilesResearch/ServicesStocktakeproposal.pdf>

qualification. Depending on the institutional arrangements and particular circumstances of the student, the degree of public subsidy can vary in something from zero to equivalence with Australian government supported undergraduate degrees.

The Australian Services Roundtable recommends that a more equitable policy framework be developed for continuing education that encourages greater investment by institutions, individuals and industry, and recognises the role of Universities, TAFE, private education providers, and the professions.

It may be that the use of University or TAFE facilities and equipment, and assistance in the development of course curricula and materials is a particularly effective way for public resources to reflect the public benefit from high quality continuing education.

6. A Greater Focus on Higher Education Outcomes

The Australian Services Roundtable supports the position of Universities Australia and TAFE Directors Australia that the regulation of Higher Education is excessive and should be reduced. As discussed earlier, better provision of information relevant to Higher Education providers would help institutions make better decisions.

There should be a significantly enhanced focus on policy outcomes such as international competitiveness in research, teaching, course resources and equipment; industry engagement; meeting international certification standards including those of the professions; graduate employment measures eg salaries, etc.

It is important to take into account the fact that international standards are increasingly being adopted by Australian professions as they provide recognition for their members in many countries across the world. This trend needs to be recognised and supported by Higher Education policy; equally there is no need to duplicate these processes within the regulatory processes for Higher Education.

Many TAFEs deliver higher education courses, and as the knowledge intensity of the economy increases so will this trend. The complex and duplicative reporting structures for higher education in TAFE institutions should be streamlined.

7. Work Integrated Learning

Work integrated learning help address skills gaps that block the productive use of academic knowledge in the workplace.

Many services industries eg, in the IT sector and in others, have long and successful experience in work integrated learning within Higher Education.

An extension of work integrated learning more broadly could help address concerns of Australian businesses, especially SMEs, about the weak employability skills of some graduates.

Around 85 per cent of Australian University students are already engaged in paid work at some stage each year, higher than for most other countries. Mostly this work is unrelated to the student's studies, but this already strong engagement with work provides the potential to develop more constructive work integrated learning programs more broadly across University faculties.

Universities Australia has proposed a national internship program to provide for more Australian University students to undertake structured work-based learning in industry during their studies. The Australian Services Roundtable welcomes this initiative and recognising that implementation will require industry support, ASR will encourage its members to participate.

The existing experience of successful work integrated learning demonstrates that this will not happen with simply good will and part-time assistance by academic staff. A poorly resourced approach will simply waste the time and resources of industry, academics and students alike and not delivered the employability skills needed to boost productivity growth.

8. Greater industry engagement in Higher Education

In the global economy, the location of Higher Education-generated skills are increasingly driving firms' investment decisions – as a result some Australian firms are actively developing links with foreign Universities, more so even than with domestic institutions within Australia.

This tells us that globalisation has made the responsiveness to industry needs a key competitive issue for Higher Education institutions. Those that develop a reputation for industry responsiveness will attract the interest of industry globally, those with a poor reputation will struggle to attract even domestic firms.

The Australian Services Roundtable recommends that this review consider a range of policy support for greater industry engagement in Higher Education. These could include removing the fringe benefits tax on employer contributions to HECS HELP loan repayments for continuing and post graduate courses, and introducing an Education and Training tax concession, both of which would encourage industry demand for skills to be more strongly recognised by Australian Higher Education institutions.