



National Press Club Address

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A not-so-radical way of securing future prosperity and cohesion for Australia – enhance investments in the public’s innovation assets.

I would like to acknowledge the traditional owners of the Canberra region, the Ngunnawal people, and pay my respects to elders, past and present.

Many thanks to the National Press Club on behalf of the Group of Eight universities for the opportunity to address you today.

I want to start with a quote which I believe is as relevant to modern Australia as it was when first stated 60 years ago by the Prime Minister of the day, Robert Menzies.

“It is not yet adequately understood that a university education is not, and certainly should not be, the prerequisite of a privileged few ... We must, on a broad basis, become a more and more educated democracy if we are to raise our spiritual, intellectual and material living standards.”

I came to this wonderful country from Denmark with my Australian wife and two small children 30 years ago, and 30 years after Menzies’ statement.

A year later Erich Bloch, who was Director of the US National Science Foundation, said something that I believe remains similarly relevant. He said this to a US Senate committee hearing.

“A radically new system for creating wealth has evolved that depends upon the creation and application of new knowledge. In a very real sense, we are entering a new age, an age of knowledge, in which the key strategic resource necessary for prosperity has become knowledge itself—educated people and their ideas.”

Generations of Australians have instinctively known both of these statements to be true, and have helped build public universities which are now among the worlds finest. I wish to thank Australians deeply for this.

Indeed, seven of our 40 universities rank in the global top 100 of over 4000 assessed universities. A remarkable achievement for a country of only 24 million people.

Collectively, public universities have generated products which enhance lives in Australia and abroad, assisting human and animal health, food security, the environment – plus a great deal more.

They have generated a stock of knowledge that is estimated to amount to approximately 10% of Australian Gross Domestic Product in 2014.

These same universities have provided doctors and nurses who deliver babies and care for the ill; engineers who make sure our bridges and drinking water are safe; teachers who give the gift of literacy; vets who care for our animals; ambassadors who promote our interests overseas – and - again - so much more.

Indeed, Australia's GDP is **8.5% higher** because of the impact that university education has had on the productivity of the 28% of the workforce with a university qualification.

Through all this, our universities have earned a reputation so mighty that hundreds of thousands of students from most countries in the world see education in Australia as a terrific investment.

All these things, and more, have produced benefits for people across Australia – including people who have never set foot in a university.

My first-hand observations of these positive effects from strong university education and research in two countries, have helped me remain an optimist.

They have certainly made me an admirer of Australian public universities, which, consistent with the views of both Menzies and Bloch, contribute to the raised living standards, as documented by the Deloitte Access Economics work referred to earlier.

My observations have built my conviction that public universities contribute enormously to national prosperity and social cohesion, and are an asset that any government determined to deliver jobs and growth would wish to keep in public ownership.

So I was a little surprised to see an official from the Department of Education and Training refer to universities, in a recent Senate Estimates hearing, as “private institutions”.

But I concede he makes an interesting point.

My time in Australia has paralleled a drift, figuratively speaking, of universities away from majority public ownership.

And during this decade, the second decade of the 21st Century, I have seen the pace of what we might call 'privatisation' quicken.

In 1987, 16.4 million Australians were served by 19 universities and 46 colleges of advanced education.

More than 80% of university funding came from the Federal Government.

Now, across the country's eight most research-intensive universities, federal support has fallen to an average below 40% (excluding the Higher Education Loan Program, HELP).

Students, who in 1987 paid a \$250 annual administration charge, today pay for over 80% of their tuition fees in some popular programs.

Since 2011, \$3.9 billion in commonwealth funding has been sliced from universities. In addition, the \$3.8 billion Education Investment Fund, which previously funded infrastructure has effectively been closed.

Furthermore, the current Budget proposals for Higher Education, if passed by the Senate, will take \$2.8 billion of direct commonwealth funding out of the system.

Until now, universities have been sufficiently adept at adjusting their business models in order to survive the withdrawal of public funding.

However, we are now staring in the face of the real danger that the government is tilting the funding balance to the extreme.

Its proposal to make the most brutal cuts by a federal government in more than 20 years will inevitably leave universities with reduced agency over their own business models.

The proposals will give away a national competitive advantage, and weaken the country's economic resilience in the face of undesirable – but not unthinkable – global jolts.

Before I go further, I would like to emphasise that I speak today as Chair of the Group of Eight, or Go8.

I am also a member of Universities Australia. It represents a sector that directly contributes more than \$25 billion to the economy annually, while graduating more than 320,000 well-educated people who will contribute to prosperity, innovation and social cohesion. But for the purposes of this discussion, I proudly wear my Go8 hat.

As many know, the Go8 is comprised of Australia's most research-intensive universities: the Australian National University, Monash University, the University of Adelaide, the University of Melbourne, the University of New South Wales, The University of Queensland, the University of Sydney and the University of Western Australia.

We share many characteristics with other Australian universities, but we also have distinctive features that have led us to a particular position on the government's proposals.

These features include:

- Being Australia's best performers in global rankings;
- Undertaking \$6 billion per annum in research with excellent outcomes and graduating more than half of the country's PhDs;
- Keeping company, and collaborating, with the world's best;
- Educating a third of all international university students in Australia; and
- Having a network of an estimated 1.8 million alumni - many of whom hold positions of substantial influence around the world.

All of these – *Rankings; Research; International students; Wonderful alumni* – are interdependent, and they ripple out to benefit the broader economy.

Hit one of these elements, and you will upset an ecosystem that contributes enormously to national prosperity and social cohesion.

For instance our high rankings (which have a positive effect for Australian universities in general), enable us to attract a disproportionately large number of students to contribute to Australia's \$22 billion in education exports. But these rankings depend on our research performance, which, despite our securing about 70% of Australia's competitive research funding, increasingly is funded by teaching-related fee income, much of which comes from international students.

Unquestionably, the Government's proposals will upset this ecosystem. The Go8 board comprising all eight Vice-Chancellors and the Chief Executive therefore sees this overall package as detrimental to Australia's interests, and urges the Senate to block it.

The Government is already the OECD's second-lowest contributor to higher education as a percentage of GDP, and as mentioned earlier, a significant proportion of our Australian student body is already paying over 80% of their tuition. They will need to pay even more, over 90%, should the package proceed.

Passage of the proposals would oblige students to pay more to study at universities which will receive an average 10% less per student under the Commonwealth Grants Scheme. Universities will thus have diminished capacity to deliver a world-class education to students paying more.

For the Go8, two years of cuts to commonwealth student contributions, which carry the Orwellian label of 'efficiency dividend', and further ongoing cuts out to 2021, will reduce revenue by \$343 million over 4 years. That is the modelled reduction from these student funding cuts alone.

At the same time, the government's plans would have the effect of building in new inefficiencies.

These will drain resource away from universities' primary academic duties of education and research, and build new and costly bureaucratic structures within government.

The proposed postgraduate scholarship scheme is emblematic of this.

Analysis for the Go8 shows that scheme, alone, would require new bureaucratic architecture including a new body to administer the scheme. This body would require a minimum of \$4.6 million/annum to perform 100,000 hours of assessment of postgraduate scholarship applications.

As a whole, this package threatens to compound serious systemic flaws in our national policy that impact particularly on research-intensive universities.

The existing flaws are as follows.

To be recognised as a university we need to teach and undertake research leading to new knowledge and original creative endeavour.

Yet government funding for research falls well-short of the full costs of research. For instance almost half of the \$6.1 billion invested in research and development by the Go8 in 2014 was sourced from other, non-research specific funds. Often, funds derived from activities in teaching and learning.

The Bradley Review of Australian Higher Education in 2008 recommended increased funding to support the indirect costs of research.

However, this has not been achieved, and it will certainly not be addressed by the latest plans.

I, and many of my colleagues, found it disingenuous of the Government to commission Deloitte Access Economics to look at the costs of delivering education, absent any meaningful study of the costs of research. It was extraordinary for the Government to then use the report as a key justification for its myopic proposals. What we needed instead was an in-depth review of how to best fund a continuum of universities to reflect the diversity and quality of teaching and research outputs the nation needs and receives.

Clearly, we will put at risk continuation of the benefits universities provide – some of which I have exemplified.

One that perhaps requires a bit of additional commentary is the delicate balance between international and Australian students.

I hardly need tell this audience that international education has been a success story of Australian higher education. Spurred on in the past by changes in policy and reductions in government funding, universities have made it a success.

Much is made of the fact that, at \$22 billion, education is the country's third largest export.

Also of enormous importance are the social and cultural contributions that international students bring to Australia.

The \$22 billion number is clear in our minds. And some here will remember another Deloitte report, (and no – I am not on the Deloitte payroll!) the value of international education to Australia. It put the size of the industry at \$19.7B in 2014-15, and estimated that this supported over 130,700 full-time equivalent employees, accounting for 1.3 per cent of Australia's total employment.

For a Government determined to grow the economy and create jobs, this is surely a thing to carefully steward and sustain.

Yet persistent and dramatic funding cuts could, if allowed, confront us with difficult choices.

On one hand, the cuts will add to the already considerable challenge of the Go8 maintaining the high global rankings that underpin the international student pipeline across the board.

That is especially the case in the face of the hefty investments that some overseas governments are making in their universities. No discussion on trends in global rankings can pass without awed references to the rise of China.

It is more than significant to Australia that the nation most rapidly building the reputation of its own universities is our number one source of international students.

On the other hand, the cuts may lead some institutions to consider taking more international students.

Whilst this has to date been a very positive thing, it is important and honest to acknowledge the risks inherent in an ever-increasing reliance on international students.

To quote the recent NSW Auditor-General's report on NSW universities: *"The increasing number of overseas students can have significant financial benefits to a university. However, there are associated risks, including pressure on capacity constraints and the need to maintain teaching quality. There is also a concentration risk from reliance on overseas students from the same geographical location in the event of an economic downturn from that region."*

For research universities, determined to maintain the quality of Australia's research and innovation capability and also committed to making university accessible to capable students of all backgrounds, the decisions may be particularly difficult. It is certainly an issue that would exercise many a risk and audit committee across the sector.

If you are thinking my optimism is draining away, here is some better news.

At the same time as the Government backs away, global capital is recognising the potential of Australian research – and banking on it.

International companies can see the record of inventions and innovations generated by Australian research universities, and they are investing with the view of keeping the pipeline flowing.

By objective measures, there is strong evidence tracing some very significant inventions back to excellent Australian university research.

Among those inventions is the vaccine against cervical cancer. After just over a decade on the market, more than 205 million doses have been delivered in over 130 countries, and there have been dramatic reductions in the prevalence of human papilloma virus infection in populations with high immunisation levels, including Australia. The vaccine was recently approved for sale in China, which has approximately 130,000 cervical cancer cases per year. This hints at the vaccine's colossal potential - primarily to do good but also to position Australia as a global source of game-changing innovations.

Go8 institutions have also generated:

- The 'bionic ear' cochlear implant;
- The world's first successful, non-invasive treatment for sleep apnoea;
- Solar cells with world record-breaking efficiency; and
- Technology for repairing weakened tooth enamel that is estimated to save consumers over \$1 billion per annum in dental bills.

In a similar vein, many highly-prospective developments are moving along the lab-to-market pipeline.

They include:

- A natural method to halt the spread of dengue fever;
- The first entirely new class of pain drugs in over 20 years; and
- World leading quantum computing technologies.

Such achievements can attract further investment and enable us to breed further success. This is seen in a new agreement between the Group of Eight plus the University of Auckland, and the London Stock Exchange-listed commercialisation specialist IP Group, which has previously invested only in the UK and USA. The agreement makes available at least \$200 million over 10 years for investment in spin-outs from our Go8 plus Auckland university research. It brings capital from investors in Singapore and the United States as well as the UK and Australia. Significantly, Australia's largest corporate superannuation fund, Telstra Super, is contributing \$35M.

But how stark is the contrast between the actions of savvy international business partners and the actions of our own government? One group investing hundreds of millions in Australian university research, the other signaling intention to divest!

Like overseas observers, a significant proportion of Australians seem to have confidence in their nation's research. In a poll of Australians' attitudes towards government support, conducted in 2016 for the Australian National University, 67.4% of respondents agreed that science is best funded by government, compared to 32.6% who thought it is best funded by private investment.

If government needs even more reason to invest in university research, we have it in a recent report for the Office of the Chief Economist.

It found that Academic research and development expenditure has positive spill-over effects on business R&D expenditure – unlike direct government expenditure, which has negative effects on spill over.

So there is just a small sample of the good news from universities.

These things fuel my optimism - as does my workplace, which is abuzz with students and staff who have smart ideas and a passion for improving society.

I won't use this forum to rebut every questionable claim about universities that the government has made since May 1. Others have done that very capably.

But I think taxpayers deserve to know that the Government's insinuations about university's finances are, to put it politely, misleading.

The fact that public universities are not-for-profit does not mean we are 'for loss'. If the government is to build a sustainable higher education system, then presumably it does not encourage universities to run at below break-even.

Now, perhaps we can quickly assess how the Government's package rates against an important measure it imposes upon itself: fairness.

Is this proposed package fair to Australia?

Outside government, there are fears it will deter some students from attending university. This comes at a time when it is arguably more important than ever to have a citizenry that is educated to think critically, solve problems and contribute constructively to growing our prosperity and strengthening our democratic processes.

Now does not seem like a good time to step back from the Menzian notion of a '*more educated democracy*'.

And let us assess the package against the Government's innovation objectives.

As the National Innovation and Science Agenda reminds us: *“Innovation keeps us competitive. It keeps us at the cutting edge. It creates jobs. And it will keep our standard of living high.”*

Why would a government knowingly disinvest from a national asset that has a proven record as an engine-room for innovation?

I do not advocate turning the clock back to the time when I came to Australia and started work at La Trobe University. Far from it. I like the growing engagement between researchers and industry and I love the multiculturalism of our campuses.

I am a fan of things the Prime Minister has said in the past about disruption, including that we must recognise *“that the disruption that we see driven by technology, the volatility and change is our friend, is our friend if we are agile and smart enough to take advantage of it”*.

There are great signs that our students and young graduates also agree with that sentiment. A large number of them hunger for entrepreneurial smarts, and are keen to engage with programs that connect them with successful start-ups and with entrepreneurial alumni. Universities are fostering this enthusiasm by developing innovation and entrepreneurship precincts, such as the University of Melbourne’s Carlton Connect.

Who knows where the next \$8B NASDAQ-listed Atlassian will come from? That software firm, which in 2015 became Australia’s most successful listing on the US stock exchange, was founded by University of NSW graduates who have now donated millions to charity.

No one can say for sure where it will come from, but I suggest to you that it most likely will come from young Australians with the benefit of a wonderful school education followed by the opportunity to be educated in a well-resourced and research intensive university environment.

Minister Birmingham makes sense in saying *“we want to ensure Australia has a fair, equitable and high-performing education system – from the high chair to higher education”*.

The good news is that last week Parliament agreed to school reforms and enhanced investment. This is a good start.

The baffling thing is that this is accompanied by a move to cut funding to universities in parallel. The saying ‘all dressed up with nowhere to go’ springs to mind. Let us not kick that own goal. There is only one responsible action open to a prosperous country whose government spends a very small proportion of its GDP on higher education and research: mirror the enhanced funding for schooling with a responsible enhanced investment in higher education and research.

Australians have, in the words of the Prime Minister *“an enormous reservoir of good sense”*.

I submit that it would be excellent sense to maintain the nation’s share in our key knowledge generating assets, so that in 30 years’ time our children and grandchildren can savour the returns and proudly say *“my forebears invested in this”*.

Thank you.