

# KEEP IT CLEVER

POLICY STATEMENT 2016



UNIVERSITIES  
AUSTRALIA

In 2013, Universities Australia released *A Smarter Australia: An agenda for higher education 2013–2016* (the UA Policy Statement). This document outlined the policy reforms needed for the sector to deliver in the best interests of students and the nation. Although the external environment in which universities operate is constantly changing, the UA Policy Statement has proved to be resilient in its relevance. It continues to represent the higher education sector's view on the policy platform needed to support a strong, dynamic and responsive national university system. This 2016 UA Policy Statement—*Keep it Clever*—should be read in conjunction with the UA Policy Statement *A Smarter Australia*.

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‘We have to recognise that the disruption that we see driven by technology, the volatility and change is our friend... if we are agile and smart enough to take advantage of it.’

The Hon Malcolm Turnbull MP, Prime Minister of Australia, 20 Sept 2015

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‘Investing in universities is an investment in our national productivity—and our international competitiveness.’

The Hon Bill Shorten MP, Leader of the Opposition, 21 Sept 2015

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# **Australia is at an economic and productivity crossroads.**

In an era of sweeping change, other nations are seizing the future with investments in higher education, research, innovation and skills. Australia now faces a stark choice: we either make our own investment—or we fall behind those nations that do.

Equipping ourselves for the dramatic economic transformation ahead is an urgent task. Indeed, our future prosperity depends on it. That's why we need a new social contract with the Australian public—supported by political bipartisanship—that grasps the direct link between our national investment in education, research and innovation, and Australia's economic fortunes in the years to come.

# Australia's future depends on our universities

## Australia is entering a period of seismic economic and social change.

This is occurring at a pace and magnitude not seen since the industrial revolution. The centre of global economic activity is shifting swiftly towards Asia. The Australian economy is moving from a heavy reliance on mining and manufacturing to a new era in which skills, knowledge and ideas will become our most precious commodities. The enormous scale, mobility and competitive strength of the international labour market is transforming the jobs and job security of Australians. Our workplace productivity, processes and culture are being reforged.

In this new knowledge economy, technology is driving profound shifts. Keeping ahead of such change requires unprecedented agility.

**Within two decades, more than 40 per cent of Australian jobs that exist today may disappear** as technology reshapes entire industries, professions and work practices.<sup>1</sup> Workers will need to build far greater mobility, diversity and flexibility into their careers.

## Australia's position in World Economic Forum Global Competitiveness Index

RANK 2006–07



RANK 2014–15



## Digital literacy will be essential for an estimated 90 per cent of

**Australia's workforce in the next five years.**<sup>2</sup> 'Disruptive technology'

will drive further change across the economy, and bring new urgency to the national skills agenda. Retraining and upskilling will no longer be a choice, but an essential and regular part of our working lives.

An era of unprecedented connectivity has also driven the emergence of the 'collaborative' economy, in which wide access to smart phones and digital devices is rapidly creating new business opportunities and new ways of working. These forces are fundamentally reshaping the industrial landscape.

As traditional industries recede, **we will need to generate new jobs and new industries through innovation**, creativity and technological development. **Universities will be centre stage in driving this evolution.**

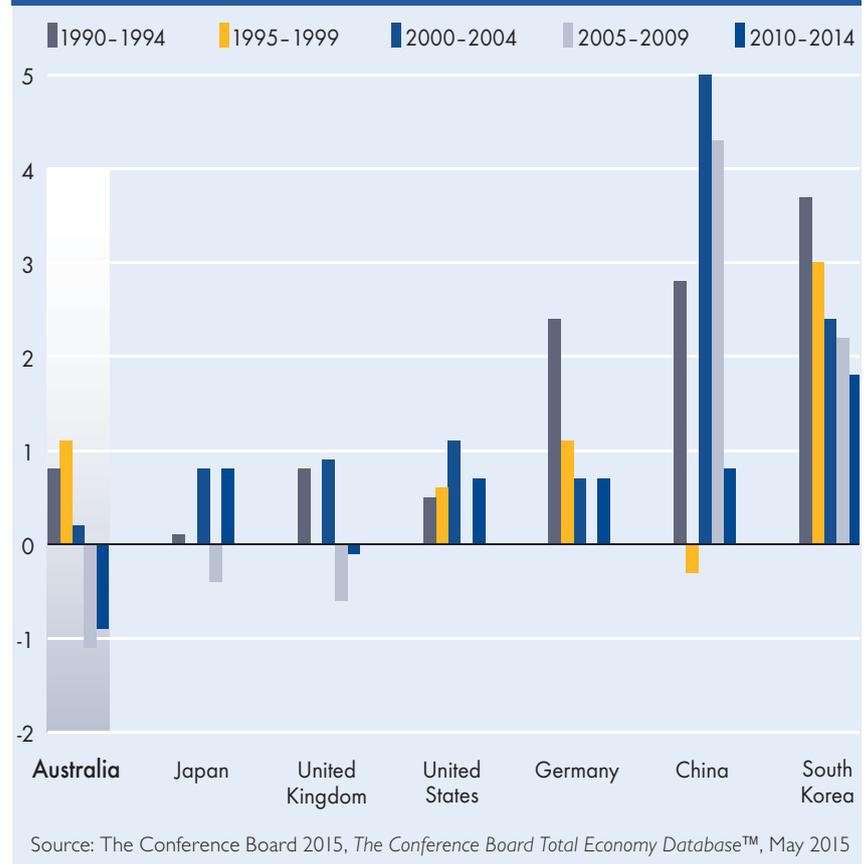
**Table 1: Australia's position in the Global Innovation Index, 2015<sup>4</sup>**

Country	Rank
Switzerland	1
United Kingdom	2
Sweden	3
Netherlands	4
United States	5
Finland	6
Singapore	7
Ireland	8
Luxembourg	9
Denmark	10
Hong Kong	11
Germany	12
Iceland	13
Korea	14
New Zealand	15
Canada	16
<b>Australia</b>	<b>17</b>

Australia's ability to navigate and capitalise on these trends is weakened by declining productivity (Figure 1), a fall in our international competitiveness,<sup>3</sup> an ageing workforce, further globalisation and constrained public budgets.

Australia now ranks number 17 in the world for innovation—a position that must be improved if we are to compete with the world's best (Table 1).

**Figure 1: Total factor productivity growth 1990–2014**



If we continue on our current trajectory, Australia will be left behind.

Australia's universities have a direct role in our prosperity

So we cannot afford to stand still...

Australia's 41 universities contributed **\$25 billion to the economy** in 2013 and accounted for more than **1.5 per cent of our GDP**.<sup>5</sup> The value of the stock of knowledge generated by **university research** was estimated at **\$160 billion** in 2014, equivalent to **almost 10 per cent of Australia's GDP**.<sup>6</sup>

In total, university education added an estimated **\$140 billion** to our economy in 2014.<sup>7</sup> Our universities **educated almost 1.3 million Australian and international students in 2014**<sup>8</sup> and directly employed 120,000 fulltime equivalent staff.

On the global stage, we account for 3.9 per cent of the world's research output with only 0.3 per cent of the world's population.<sup>9</sup>

Australia has built an enviable reputation as a destination of choice for international students seeking a high quality university education. **International education is Australia's third largest export** and largest services export<sup>10</sup>, **generating revenues of \$18 billion in 2014–15**.<sup>11</sup> Higher education generates around two-thirds of this revenue.<sup>12</sup> **The education of international students is now Victoria's largest export**.<sup>13</sup>

Australian universities deliver excellence in teaching, scholarship, research and innovation; support regional economies and communities; and transform lives through educational opportunity and research. Importantly, too, Australian universities have been at the forefront of Australia's 'soft diplomacy' agenda through education.

**Social and economic change at this vast speed and scale need a university system that can keep pace.** With proper funding, Australia's universities can develop the new products, breakthroughs and discoveries needed to build new industries for our nation. Their research will help Australia to solve our most challenging problems and continue to enhance the quality of our health, our lives, our incomes and our environment.

In this era, universities must educate for innovation and entrepreneurialism, and collaborate closely with industry to generate new sources of income for Australia. Our universities must be both robust and agile. They must produce informed, globally-connected graduates to create and fill the jobs of the future.

In this rapidly changing economy, new models of course delivery are required. Already, universities and students are driving a dramatic redesign of the ways in which learning occurs. This is crucial to **produce graduates with the skills, flexibility and resourcefulness that Australia needs to remain competitive.**

Increasingly, universities are offering greater personalised support to students during their study and expanding online course offerings to increase access for a diverse cohort of students (including people in remote locations and those upgrading qualifications while working). Universities are also offering students more flexibility within degrees to choose the right mix of subjects for their skill and career needs and insisting on an ever-greater infusion of research into the university curriculum and classroom.

For Australia, meeting this era of change with confidence and skill requires a university system that is responsive, flexible and agile. The nation needs a system in which universities are able to pursue their missions in the interests of their students and the nation; a system underpinned by innovation and commitments to quality and the support of life-long learning; and a system that celebrates and pursues diversity—in discipline and research specialisations, scale, focus and strategic objectives.

...because  
the rest of  
the world is  
investing now

Right around the world, smart nations are making major investments in research, innovation and higher education. **These national investment strategies grasp a fundamental truth about future prosperity. The work of universities is central to national economic strength and global competitiveness.**

- **China** is on a path to becoming **the greatest investor in research and development in the world** within the next decade.
- The **United Kingdom** has allocated **AUD\$3 billion over five years** to its Catapult Centres, promoting industry–university collaboration, **compared with Australia’s \$190 million** over the same period for its Growth Centre equivalents.
- The **United States** has outlined significant new investment in higher education, with the goal of having **the highest proportion of college graduates in the world** by 2020.
- **Japan** is investing significantly, seeking to become **the number one global innovator by 2018**.
- **Singapore** increased its investment in **research and development by 20 per cent** for 2011–15 from the previous five-year period.
- **South Korea** has a target of investing **five per cent of GDP** in research and development by 2020.

With the right policies and proper funding,  
our world-class universities will help to  
position Australia for future success

**Australia’s universities have a unique role in driving innovation as the only institutions that integrate education with research. They are the incubators for innovators as well as innovation.**

The task of securing Australia’s future prosperity lies with all of us—governments, schools, training providers, industry, business, universities, individuals and the broader community.

The **role of the community is to hold governments to account so they provide leadership** in the best long-term interests of the nation. Its role is also to **express its views on resource allocation priorities. The private sector needs to invest** for the future, embrace and plan for change, and encourage, support and drive a culture of innovation and entrepreneurialism.

It is the **role of governments to make policy** that includes adequate funding for universities to secure our future prosperity. With the right settings, **our universities can position Australia cleverly for future prosperity**. Supported by the Australian community, universities stand ready to work in partnership with governments to secure our country’s long-term national success. This policy statement makes this case more clearly and directly than ever before. **An investment in universities is an investment in our future prosperity.**

# POLICY PRINCIPLES

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The policy settings needed to support a nimble, adaptive and flexible university sector to meet the expectations of its students, the community and employers should be guided by the following set of principles that transcend politics, time and the economic circumstances of the nation. They are:

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<b>Accessibility</b>	All Australians, regardless of their socio-economic background, postcode, ethnicity, gender, disability or religion with the ability to successfully complete a university qualification should have the opportunity to do so.
<b>Affordability</b>	While the higher education system should be financially sustainable and affordable to the taxpayer, cost must not deter any capable student from pursuing a university education.
<b>Quality</b>	The education provided and the research performed should be of the highest quality, benchmarked internationally.
<b>Research capability</b>	Australia's universities should be acknowledged as major contributors to Australia's research capability and a crucial source of ideas, breakthroughs, inventions and discoveries that underpin our national wellbeing.
<b>Resourcing</b>	The resources for both teaching and research should be sufficient, sustainable and predictable to enable universities to deliver on the expectations of students, employers, the community and governments.
<b>Accountability</b>	Both universities and government should be accountable to the Australian people for the amount and effective deployment of public funding for universities.
<b>Autonomy</b>	Universities should be autonomous, self-accrediting institutions with responsibility for their own affairs.
<b>Policy stability</b>	Universities require a stable policy environment in order to plan and deliver in students' and the nation's best interests.



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# AUSTRALIAN UNIVERSITIES

## DELIVERING BREAKTHROUGH RESEARCH AND INNOVATION

'In any possible version of a better Australia, research and innovation must be at the heart of our economy, our politics and our national life.'

Professor Ian Chubb, Chief Scientist of Australia

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Rapid technological change, growing unemployment and a slowing economy highlight the fact that our long-term national prosperity will rely heavily on new breakthroughs in research and innovation. Australia needs to make a game-changing investment in wealth-generating university research, innovation and commercialisation.

**Investments in university research are an investment in Australia's future prosperity.**

Every day more than a billion people around the world rely on, and take for granted, extraordinary Australian discoveries that improve the quality of their lives and contribute to our economic strength. The jobs and income from such innovations power our economy, helping to lift wages and living standards for all Australians. Yet despite its crucial role in our economy, **Australia is the only country in the OECD without a national research and innovation plan.** We need a national plan that lays out our long-term research and innovation goals and makes a quantum boost in public investment to achieve them. This will ensure that we capitalise on our existing research strengths—and acquire new ones.

Spray-on skin, automated agriculture, contamination removal from natural gas streams, the Cochlear hearing device, enhanced ore recovery using floatation technology, and anti-viral and cervical cancer vaccines are some of Australia's best-known discoveries. Yet remarkable inventions and innovations are being developed all the time: a painless, transportable vaccine delivery device (the Nanopatch); an electronic skin patch for at-home health monitoring; the use of 3D printing to replicate jet engines and lost cultural artefacts; and the building blocks for quantum computing, which has potential to revolutionise research and industry.

A new generation of digitally based technological advancement is also emerging. An enabler itself, digital technology is becoming deeply embedded in all other key enabling technologies such as nanotechnology, synthetic biology, robotics, advanced materials, big data, photonics and artificial intelligence.

Our universities are the only institutions that build and link all elements of advanced scholarship, innovation and development.

They perform the greatest proportion of basic research, without which we would not have the cutting-edge breakthroughs needed to drive human advancement. **Universities are the catalysts of ideas and converters of research into public good.** Today, our universities are striving to produce the next breakthroughs that will generate future income for Australia. Yet we are not investing enough—nor providing the crucial security of long-term funding—for us to stay globally competitive.

## Australian universities continue their commitment to:

- Drive the innovation needed to secure national economic and social wellbeing.
- Produce the next generation of researchers and career-ready graduates that are digitally literate and entrepreneurial to create and fill the jobs of the future.
- Engage more closely with all sectors, particularly industry, to grow the economic and social benefits that flow from university research.
- Collaborate with international partners to build national research capability, pursue research excellence and contribute to the international research effort to address the most pressing global challenges.
- Foster new ventures and expand the level of public and industry access to the outcomes of university research.
- Maintain accountability to governments and the community for the efficient deployment of the public funds they receive to further the nation's research endeavours.

## Universities need government to:

- Develop and implement a comprehensive, whole-of-government, national research and innovation strategy. This strategy should:
  - acknowledge universities as an integral part of Australia's research and innovation system through their research programs, as educators of the next generation of innovators and entrepreneurs, and as the institutions best placed to conduct broadly-based, pre-competitive, basic and applied research
  - provide long-term, predictable and secure funding for university research, research training, and national and landmark research infrastructure (which currently has no funding beyond mid-2017), at levels that enable Australia to successfully compete with its international peers
  - establish a timetable, over a five year period, to increase the resources available to fully fund the indirect costs of research.
- Make a *major step-change commitment*, building on existing government programs, to achieve greater industry–university engagement and collaboration. This would include plans to:
  - invest in a major technology and innovation program, similar to the United Kingdom's Catapult initiative, to stimulate economic growth and diversification
  - establish an 'Innovation Board', comprising senior government, industry, university and other research community representatives, to provide strategic leadership of the nation's research and innovation effort
  - create a 'Student Innovation Fund', jointly funded by universities, industry and government, to encourage and facilitate undergraduate entrepreneurship
  - bolster initiatives to increase researcher mobility between universities and industry
  - introduce a premium tax concession rate for businesses collaborating with universities on research and development.
- Increase funds to support stronger international research collaboration.

## Why research and innovation matter

- Research and innovation are the core drivers of economic growth, national productivity and social wellbeing.
- The value of the **stock of knowledge generated by university research was estimated at \$160 billion in 2014, equivalent to almost to 10 per cent of our GDP.**<sup>14</sup>
- The benefits of research and innovation reach far beyond our economy. They inform public debate, influence policy-making, improve our health and wellbeing and help solve our most complex problems.
- University research not only creates the knowledge that leads to the development of new products, new industries and new ways of doing things, it also informs the education of the next generation of professionals, researchers and community, government and industry leaders.
- Government-funded research programs and infrastructure help the world to respond to the enormous challenges of our time: health and ageing, major environmental changes, economic disruption and societal instability and dislocation.

## Our performance

- Although we **comprise only 0.3 per cent of the global population, we account for 3.9 per cent of the world's research output.**<sup>15</sup>
- Half the number of Australian universities are now ranked in the Academic Ranking of World Universities' top 500 research-oriented universities and 22 universities are ranked in the Times Higher Education.
- Australia is the seventh most-represented country in the 2015 Times Higher Education World University Rankings, boasting an impressive 22 institutions in the top 400.
- Almost half of our research is published with an international co-author. We have twenty areas of national research strength across the humanities and sciences and more than 80 per cent of our research is at world standard or above.<sup>16</sup>
- **Between 1998 and 2012, the amount of university research income sourced from industry almost tripled, from \$135.8 million to \$398.2 million.**<sup>17</sup>
- The backbone of our research capability, supported by AARNet, is our globally connected, world-class research infrastructure. Extending from giant telescopes, genomics facilities and supercomputers to the Synchrotron, the OPAL nuclear research reactor and marine research vessels, this network of facilities provides access for 35,000 researchers from all disciplines and industries tackling the world's most pressing challenges.

## Our challenges

Declining levels of public investment have put substantial pressure on our research and innovation system and the ability of our university research programs to deliver the discoveries, breakthroughs and inventions that Australia needs. As global economic, technological and scientific competition intensifies, investment in research and innovation is essential to secure Australia's future.

### No strategic framework

Successful and innovative nations plan for the future. **As noted by the Chief Scientist, Australia is the only country in the OECD without a national research and innovation strategy.**<sup>18</sup> We need a strategy that articulates our long-term national economic and social goals, defines the role of our universities in our research and innovation system and identifies the means by which the goals will be achieved.

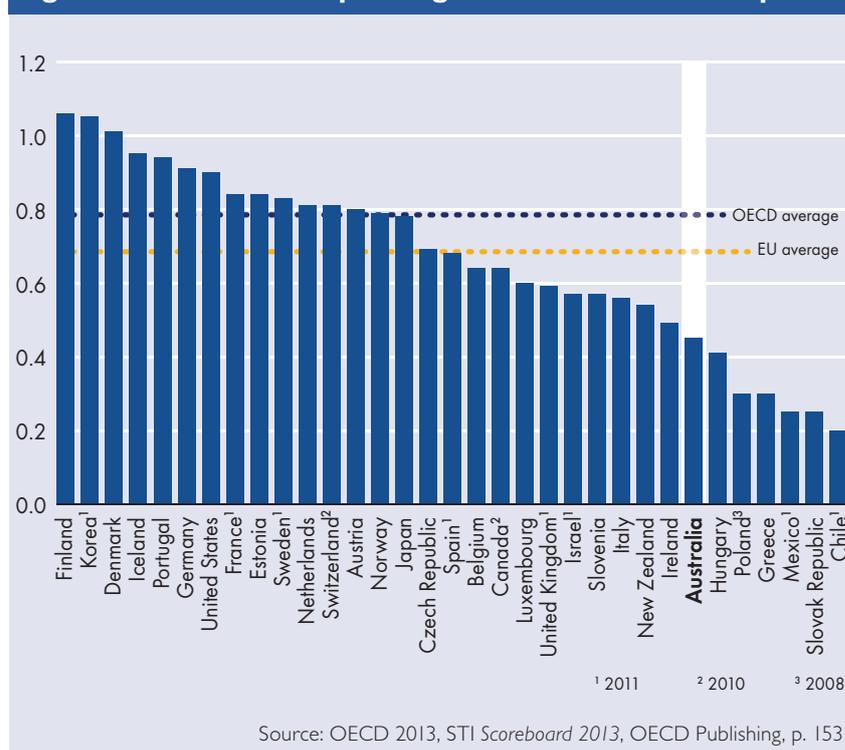
### Insufficient overall investment

Australia's overall investment in research and development was 2.12 per cent of GDP in 2013–14<sup>19</sup>, compared with an OECD average of 2.36 per cent in 2013.<sup>20</sup> In 2013, South Korea invested 4.15 per cent of its GDP in research and development; the United States invested 2.73 per cent; and Denmark invested 3.06 per cent.<sup>21</sup>

**Australia's investment has been less than the OECD average for the last 15 years.**

Australian public investment in research and development in 2012 was considerably below the OECD average and behind our key competitors (Figure 2).

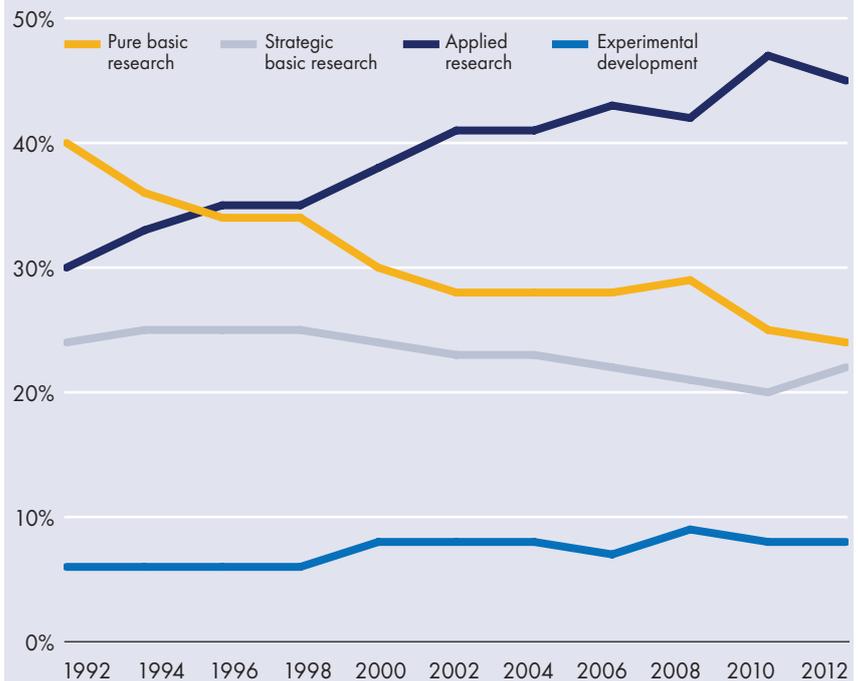
**Figure 2: Government spending on Research & Development**



### Declining investment in basic research

Of the \$9.6 billion that universities spent on research and development in 2012, less than a quarter—\$2.3 billion—went to basic research.<sup>22</sup> Since 1992, **spending on basic research has declined from 40 per cent of total expenditure to 24 per cent in 2012** (Figure 3). Basic research is the foundation of Australia's research and innovation system, creating and expanding the knowledge that leads to our greatest breakthroughs and discoveries. In the absence of a stronger public investment, not enough basic research will be undertaken to produce the scale of breakthroughs we need.

**Figure 3: Higher Education Expenditure on Research and Development by type of activity**



Source: ABS 2014, *Research and Experimental Development, Higher Education Organisations Australia 2012*, Cat. No. 8111.0, Commonwealth of Australia, Canberra

Basic research is the foundation of Australia's research and innovation system.

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### *Lack of full funding of the indirect costs of research*

Under our current funding system, competitive research grants do not cover the actual costs of university research. An independent study in 2009 estimated that covering the 'indirect costs' of research—such as maintaining laboratories and research facilities—required universities to find an additional 85 cents from their own budgets for every dollar received in competitive grant funding.<sup>23</sup> Despite previous government commitments to improve funding to cover the indirect costs to 50 cents per competitive research grant dollar, it remains **static at 23 cents**.

The stability of this ratio masks the significant increases in the amount of additional income universities are having to find to fund research. To illustrate, the gap between funding the indirect costs at 23 cents as opposed to 50 cents was \$460 million in 2013, up from \$212 million in 2002.<sup>24</sup>

In 2012, universities sourced 56 per cent of their research expenditure from general university funds, including revenue from domestic and international students.<sup>25</sup>

While the quality of education is enhanced by being research-informed, **funding for research must not come at the expense of teaching and learning programs**. This is acknowledged by other countries, such as the United Kingdom and the United States, both of whom fund the indirect costs of research at significantly higher levels than Australia.

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### *Poor rates of university–industry collaboration*

Australia's economic success requires a substantial lift in the level of collaboration and researcher mobility between universities and business. Australia's poor performance in this regard is well documented<sup>26</sup> and serves as a major impediment to the realisation of Australia's full innovation capacity.

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### *Entrepreneurialism*

The shift to higher levels of self-employment, coupled with the need for more creative approaches to industrial restructuring and transformation, demands a **greater emphasis on integrating innovation and entrepreneurship** into our higher education curriculums at an early stage.

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### *International collaboration*

In an increasingly competitive environment, **countries that collaborate with international research partners are those most likely to succeed**. In Australia, funding to support international research collaboration, while not insignificant, is restricted to two programs directed at India and China. Australia must be contributing at the global research table to help solve the world's most pressing problems, benefit from the expertise of other nations and strengthen our economy.



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# AUSTRALIAN UNIVERSITIES

## DELIVERING HIGH QUALITY GRADUATES

'The quality of our human capital is critical to our ability to solve complex problems; to develop and use technology; to deliver premium quality goods and services; and to respond quickly to an ever-changing world.'

Philip Lowe, Deputy Governor of the Reserve Bank

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Providing high quality education for our students is the primary mission of our universities.

In 2014, our universities **taught almost 1.3 million students** and **graduated almost 300,000 people** with the skills and knowledge they need to create and fill the jobs of the future.

The performance of our higher education system can be measured by the quality of our graduates.

Graduates from Australian universities are creative, entrepreneurial and adaptable. They are globally competitive: our future leaders, inventors and wealth generators. They need to be equipped to achieve great things for themselves, the nation and the world. Their skills and smarts will help to build the new enterprises and create the new jobs needed to secure our future prosperity.

Workplaces, the labour market and industries are undergoing profound change driven by technological and digital development. **It is estimated that 40 per cent of existing jobs are likely to disappear in the next 10–15 years.**<sup>27</sup> The challenge for us all is to ensure they are replaced by jobs that emerge from reconfigured and new industries, as well as through the creation of innovative, new business ideas.

**Australian universities are at the forefront of our response to these social and economic challenges.**

We now live in a digital age where both the economy and students demand action, personal attention and around-the-clock access. **Universities are transforming the way education is delivered to keep pace.** They are investing heavily in technology, building state-of-the-art interactive study hubs and simulation labs, and developing institution-specific apps that provide access to learning resources from anywhere. Learning analytics are being used to monitor student progress and obtain detailed insight into student engagement.

Graduates  
from Australian  
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and adaptable.

**Australian universities are incorporating the latest developments and industry best practice into curricula to ensure graduates are career-ready** and are equipped with the full suite of skills needed to succeed.

These initiatives are essential to delivering the high quality, innovative and research-informed education needed to secure our nation's future.

Australia's ability to compete in the global knowledge economy requires a workforce educated in new content and in new ways. **We need a workforce that is skilled and flexible, digitally literate and able to work across cultures in high performance teams.**

Universities are uniquely placed to deliver the higher education needed to prepare students for 21st century careers. To continue to do this successfully and to provide the high quality of education that is expected and demanded, **universities need sufficient, stable and predictable levels of financial resources.** Without this, they are unable to invest in the teaching excellence, technology and the infrastructure needed to underpin a world-class university system.

### **Australian universities continue their commitment to:**

- Provide quality, relevant and contemporary higher education to students. To do so, we take full advantage of digital technology to tailor programs to meet changing student, employer and society needs and expectations.
- Substantially increase work-integrated learning, work placement and service learning opportunities for undergraduate students.
- Produce career-ready, globally competitive graduates to meet rapidly changing 21st century labour market needs.
- Innovate to improve the relevance and quality of teaching programs, associated retention strategies and timely completions.
- Evolve course delivery models that best meet the demands of individual students and that lead to new business models and create new market opportunities.

### **Universities need government to:**

- Ensure, in the short-term, that there is no decline in the level of per student funding for government-supported student places and that the current method of funding indexation (Higher Education Grants Index) is retained.
- In the long-term, increase the level of public investment to at least the OECD average.
- Continue to invest in programs that support teaching innovation and excellence.
- Maintain the integrity and sustainability of the income contingent loan scheme.

## Why investing in more skilled graduates for Australia matters

- **In total, university education added an estimated \$140 billion to our economy in 2014.** Our GDP is approximately 8.5 per cent higher due to the impact of university education on productivity.<sup>28</sup>
- High quality higher education gives students the skills and knowledge that employers need and equips them to create new jobs and industries that boost Australia's economic prosperity.
- It lays the foundation for Australia to make the transition to a knowledge economy.
- A United States study shows that **when an extra one per cent of the population has a university degree, it raises the wages of those without a degree by 1.6 per cent to 1.9 per cent.**<sup>29</sup>
- Increasing the knowledge and skills of workers improves labour force participation, national productivity and national socio-economic wellbeing.
- Compared to those without a post-school qualification, graduates pay greater amounts of tax and draw less on the national health budget. They are less likely to be unemployed and more likely to make contributions to the civic life of their communities.

## Our performance

- Australia's **higher education system is ranked highly—tenth**—in the latest Universitas 21 report, which assesses the national higher education systems of 50 countries.<sup>30</sup>
- **Australia's higher education system is one of the most efficient systems in the world.** Australia is one of only two countries that ranks in the top eight systems (seventh) for output (participation rates, research performance, world-class universities and employability of graduates) but below the top eight (18th) for input (funding).<sup>31</sup> Our universities deliver much with comparatively little.
- **The employment outcomes for our graduates are extremely positive**, reflecting the quality and relevance of the higher education system. In May 2014, only 3.2 per cent of graduates with a bachelor degree or higher were unemployed, compared to 8.2 per cent for those without post-school qualifications.<sup>32</sup>
- **Our graduates are in demand all around the world** and Australian university education enjoys an enviable international reputation.

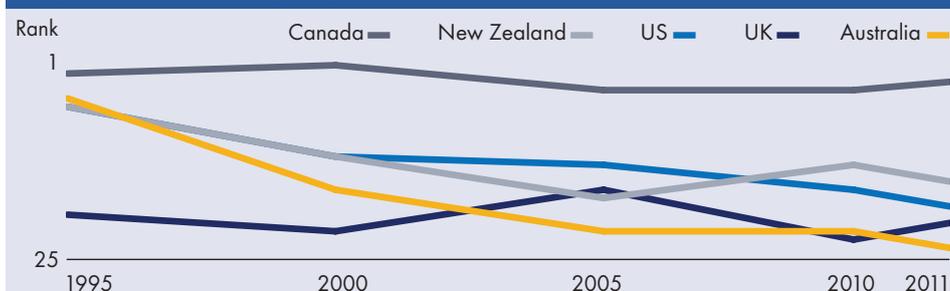
## Our challenges

Adequate and predictable government investment in universities is essential to maintain the quality expected and demanded by students, employers and the broader community and to enable universities to keep pace in the context of rapid economic and industrial change.

## Low levels of public investment

Among the 25 OECD countries for which data has been available consistently since 1995, Australia has dropped from having the sixth highest to the second lowest level of public investment in tertiary education as a share of GDP (Figure 4). In 1995, this investment stood at 1.2 per cent of GDP; in 2011, it stood at 0.74 per cent of GDP, well below the OECD average of 1.13 per cent.<sup>33</sup>

**Figure 4: Ranking of public investment in tertiary education**



Source: OECD, *Education at a Glance*, various years

If government expenditure on university education increased to at least 1 per cent of GDP (still below the OECD average), by 2040:

- Australia's labour productivity would improve by 3.8 per cent
- labour force participation would increase by 1.1 per cent
- the net gain to our GDP over the longer term would be 5.5 per cent.<sup>34</sup>

## Declining public investment

While university enrolments have tripled over the past 30 years, **public funding per government supported student place has declined in real terms by 14 per cent between 1994 and 2012.**<sup>35</sup> Lack of sufficient and stable investment for teaching and learning places undue pressure on other university revenue sources, including income from international education.

## Other options for securing funding stability in the absence of adequate levels of public investment

There is a strong case to increase the level of public investment in higher education. This is policy in our long-term national interest. If governments are unwilling to provide the level of public investment needed to meet the quality expectations of students, employers and the community as recommended in this policy statement, other options will need to be developed and debated as part of a broader, consultative public discussion.

## Risks to the integrity of Australia's world-leading income contingent loan scheme

Australia's globally recognised and emulated Higher Education Loan Program has made access to higher education affordable to millions of Australian students and is an essential feature of the system. It is vital that its integrity is maintained. Universities Australia would support the government implementing appropriate debt recovery options that do not undermine the fundamental policy intent or objectives of the scheme.

## Reductions in support for innovation in teaching and learning

Support for innovation in teaching and learning is critical to maintain and enhance our competitive edge as a leader in higher education quality. In the 2015–16 Budget, **funding to support teaching and learning innovation and excellence** through the Office of Learning and Teaching was **cut by 36 per cent.**<sup>36</sup> Staying at the forefront of modern teaching and learning practices requires proper financial support.



# AUSTRALIAN UNIVERSITIES

## DELIVERING OPPORTUNITY AND MEETING THE WORKFORCE NEEDS OF THE FUTURE

'The higher education system we have—established with the understanding that the real wealth of the nation is the capacity of our people—is a crucial part of Australia's rapid response to economic, technological and social shifts.'

Emeritus Professor Denise Bradley

**Higher education helps the nation to meet its future skills needs, lift national productivity and sustain a high-income economy. At a personal level, it transforms lives and extends minds. It is an escalator of economic and social mobility.<sup>37</sup>**

The Australian economy's demand for university graduates is growing rapidly. So, too, is the calibre of the education needed to stay employed in the 21st century knowledge economy. **By 2025, our economy will need 2.1 million more skilled graduates than we have today.** Over the same decade, we will also need to replace 1.7 million skilled workers who will exit the workforce. This means that **3.8 million new skilled graduates will need to enter Australia's knowledge economy over the next 10 years.<sup>38</sup>**

**The removal of enrolment caps to create a demand-driven system for university places has helped to meet the growing employment needs of the economy.** The introduction of the demand-driven system has also meant that tens of thousands of capable students who would once have been denied access to university are now able to pursue a higher education. Data confirms that more students from disadvantaged backgrounds than ever before are now taking up this opportunity.

**Every Australian with the ability to complete a university degree, regardless of their social or economic background, ethnicity, gender or postcode should have the opportunity to pursue a university education. Fulfilling this aspiration for as many Australians as possible—particularly those who are disadvantaged or first in family—is a key goal of our universities.**

These Australians deserve the opportunity to earn a university degree and the Australian economy needs their contribution.

Harnessing the full potential of our people is crucial to Australia's economic, social and cultural success. This requires both government and universities to support students who may be academically less well-prepared but who have the potential to achieve at levels similar to those from more advantaged backgrounds. It also requires a targeted effort to lift the level of participation in higher education by under-represented groups.

## Australian universities continue their commitment to:

- Enrol sufficient numbers of capable students to meet existing and future labour market needs in the knowledge economy.
- Increase the intake, and enable the inclusion, of students from under-represented groups and support those who are less well-prepared for university study to realise their full potential.
- Take into account anticipated labour market demand in determining student intake.
- Create and support lifelong learners with the capacity to learn, re-learn, upgrade skills and knowledge and change careers.
- Address participation and attrition rates, particularly through monitoring, early intervention and support programs for at-risk students.
- Work in partnership with schools, vocational institutions and other higher education providers to provide a more integrated and seamless approach to pathway entry programs.
- Cooperate with government and industry to ensure potential students have access to the information they need to make well-informed enrolment choices.

## Universities need government to:

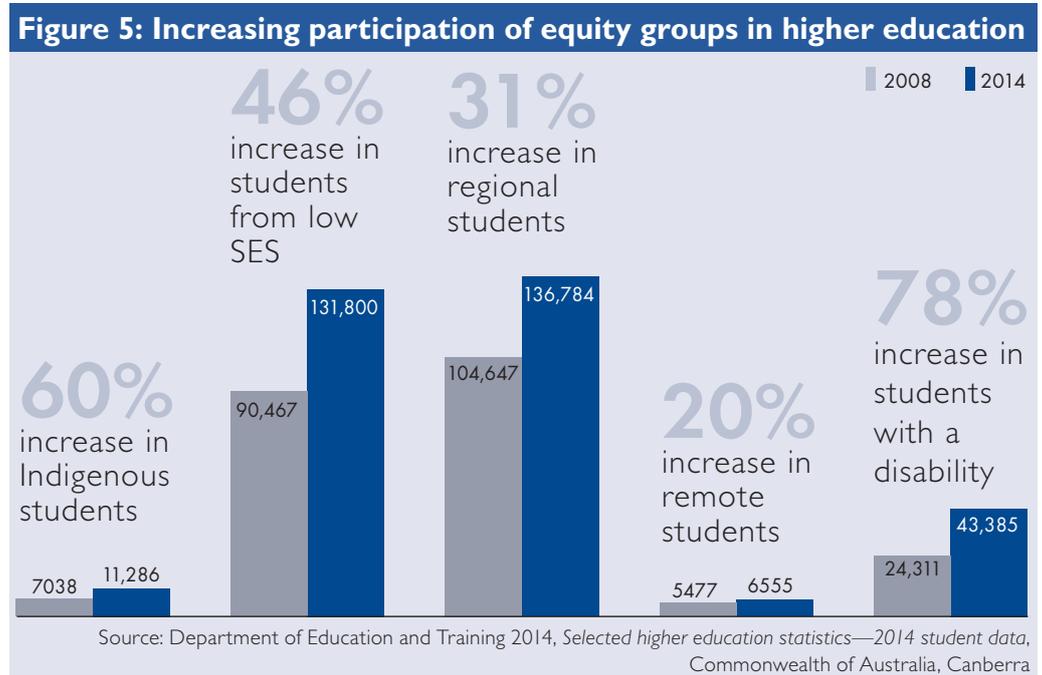
- Retain the demand-driven system and expand it, at least in the first instance, to all university associate degree programs.
- Work to evolve a seamless, integrated tertiary education system.
- Provide sufficient funding for programs that seek to lift the participation rates of equity and under-represented groups by providing support for capable but academically less well prepared students.

## Why delivering opportunity and meeting workforce demand matters

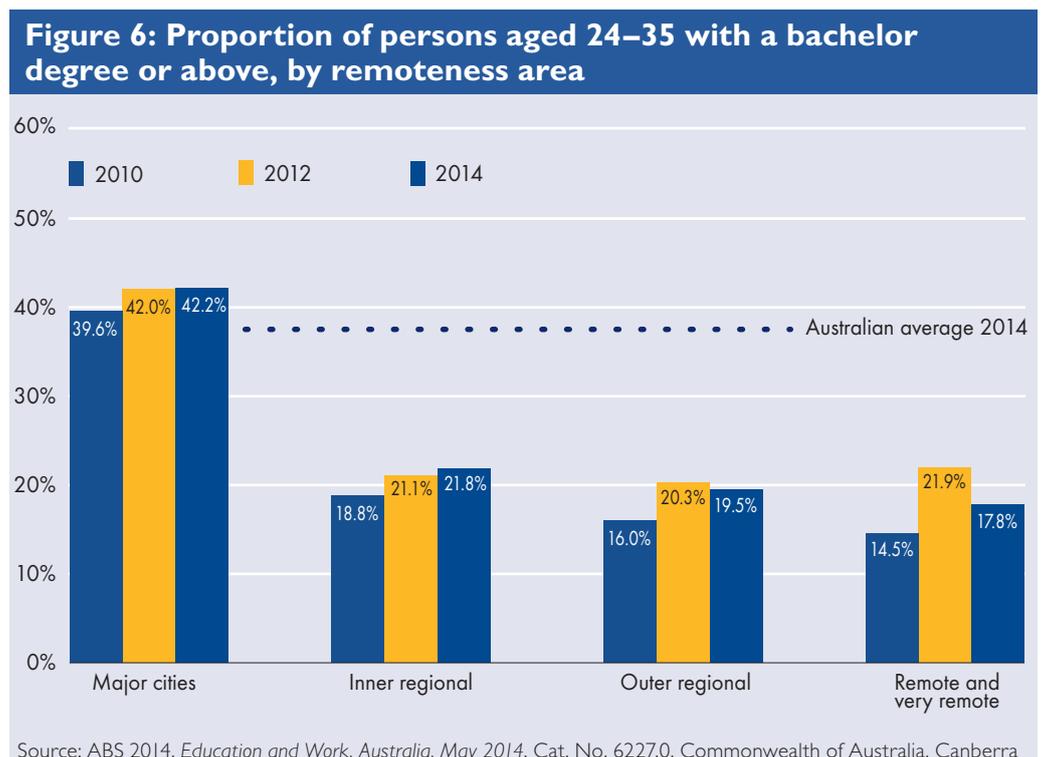
- Removing barriers to participation in higher education by capable students transforms lives, strengthens communities and contributes to national economic prosperity.
- By 2025, 2.1 million more graduates will be required to meet labour market needs than in 2015.<sup>39</sup>
- There are **five major industries that are projected to need at least 30 per cent more skilled graduates in the next decade: education and training; health care and social assistance; professional, scientific and technical services; public administration and safety; and finance and insurance services.**<sup>40</sup>
- People are changing jobs and careers more often due to globalisation, economic restructuring and rapid technological advancement. In 2013, over 40 per cent of working Australians had changed their occupation in the last twelve month period.<sup>41</sup>
- A well educated and diverse workforce maintains our economic competitiveness and our ability to connect with the world.

## Our performance

Since the introduction of the demand-driven system, the numbers of domestic undergraduate students from equity groups participating in higher education has grown considerably.



- By 2014, 37.2 per cent of 25 to 34 year olds across Australia had a bachelor level qualification or higher, up from 31.9 per cent in 2008.<sup>42</sup>
- While the participation of disadvantaged students in higher education has grown across all equity groups, the increase has been uneven. We need to further raise the number of students from regional and remote areas (Figure 6).



## Our challenges

### Recognising the value of associate degrees

**For Australia to succeed in the global knowledge economy, we need a workforce that is diverse in its skills and knowledge.** Associate degrees are valued by employers because they provide practical skills that can be applied immediately in the workplace. These degrees build student confidence and increase their potential to succeed, along with providing a pathway to further education.

For prospective students who are academically less well prepared, a completed associate degree markedly improves retention and graduation rates when they go on to higher qualifications.

Existing enrolment caps should be removed from this qualification to fill skill gaps in the economy, provide more choice for students that are better suited to associate degree study and provide an alternate route to an undergraduate degree.

### Equity program funding that keeps pace with enrolment growth

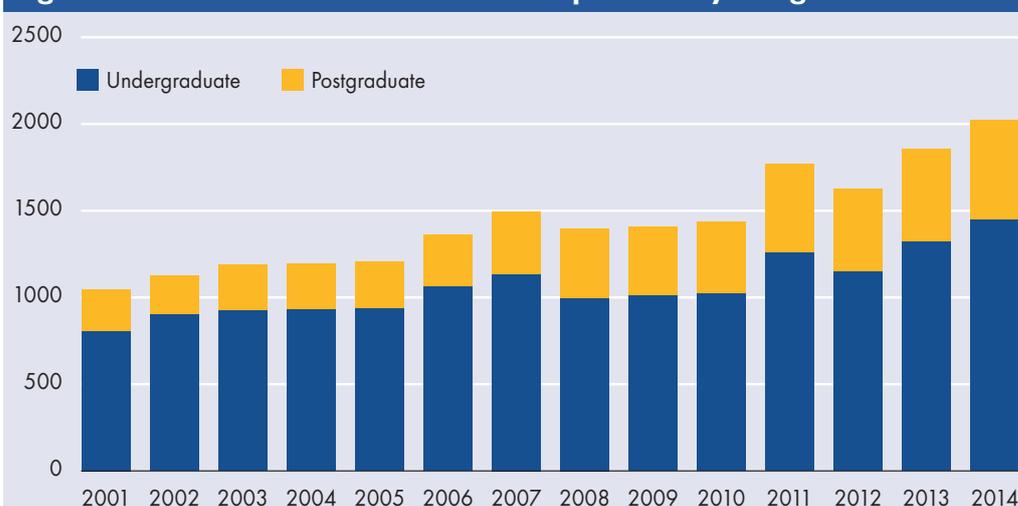
**The number of disadvantaged students participating in higher education has increased substantially since the introduction of the demand-driven system.** Equity funding is instrumental in ensuring that a student's socioeconomic background is not a barrier to attending university. Increasing participation by disadvantaged and under-represented groups and those from regional areas has been a key goal of the sector through initiatives like outreach programs and commuter campuses. Yet more needs to be done.

One of the most disturbing recent trends has been the decline in the level of support for people with disabilities. While the **number of people with disabilities participating in higher education has almost doubled between 2008 and 2014** (from 24,311 to 43,385), **funding for support programs fell by eight per cent** (in real terms) over the same period, or an effective drop of 50 per cent per student place.<sup>43</sup>

### Increasing the intake of Indigenous students

Closing the gap between Indigenous Australians and non-Indigenous Australians requires an increase in Indigenous access and participation at all levels of education, including higher education. **The employment outcomes for Indigenous graduates, compared with non-graduates, are highly positive: over 80 per cent are employed compared with approximately 60 per cent of those with a year 12 certificate.**<sup>44</sup>

**Figure 7: Number of award course completions by Indigenous students**



Source: Dept of Education and Training 2015, *2014 Award course completions*, Commonwealth of Australia, Canberra.  
Note: Includes all higher education providers reporting student data through HEIMS.

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Australian universities are committed to making Indigenous success a central part of university planning across all areas, at both the student and staff levels. **Over 2,000 Indigenous students completed their degrees in 2014, an increase of more than 40 per cent since 2010** (Figure 7). Universities are also fostering Indigenous leadership within their institutions and seeking to recognise and value Indigenous knowledge. Changes to Indigenous support programs have resulted in a dilution of the higher education focus. This needs to be addressed urgently to ensure the gains we have made are not lost.

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*Meeting student and workforce demand*

In a rapidly changing economy, it is more difficult than ever for governments, universities and the private sector to predict the labour market needs of the future with precision. **This makes it all the more important to produce sufficient numbers of graduates with the adaptability and breadth of knowledge and skills needed to succeed in the new economy.** A modern higher education must also provide them with the foundation for a lifetime of learning.

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*Policy settings that support flexibility*

**The accelerating rate of economic, technological and industrial change**—as well as student demand to control when, where and how they study—**requires a university system that can respond and adapt quickly.** Regulatory and policy settings need to encourage and support more innovative and diverse course offerings and new ways of delivering courses. Policy settings must provide universities with greater flexibility and freedom to move nimbly to meet these needs. Agility must replace outdated approaches premised on the capacity of governments to accurately predict employer, labour market, student and community needs.



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# AUSTRALIAN UNIVERSITIES

## DELIVERING GLOBAL ENGAGEMENT THROUGH WORLD-LEADING EDUCATION

'Australia is one of the world's leading providers of international education... it is on the cusp of embracing a changed global future with significant competitor challenges. National leadership at a time of global challenge is imperative.'

Michael Chaney, AO, Chairman of the National Australia Bank

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International education delivered by our universities is a major contributor to Australia's social, cultural and economic success.

International education is now Australia's largest services export and third largest export earner overall.<sup>45</sup> It is Victoria's single biggest export.<sup>46</sup> As well as boosting our domestic economy, our global education networks underpin Australia's research, trade, investment and diplomatic engagement with the world.

In 2014, Australian universities **enrolled over 310,000 international students from more than 140 countries**. They pursued their studies both on and offshore and through a vast number of partnerships in undergraduate, postgraduate and research degrees. Institutional research collaborations and partnerships enhanced that education.

**Over the past 50 years, Australian universities have been the vanguard of Australia's engagement with our region** and have built tremendous capability and cultural competency. The provision of onshore education, the establishment of offshore campuses and centres and research and academic partnerships have become invaluable to Australia and our national interest.

While Australia is a world leader in international education, the rest of the world is not standing still. Many nations are pursuing more international students and investing heavily in international research collaborations. This can only translate into success and unless we meet this challenge, our position as a world leader will be lost.

Australia's reputation for quality and excellence is crucial to maintain our competitive position as a provider of international education. A robust, risk-reflective quality assurance framework is essential to the future stability and sustainability of Australia's international education industry.

The government has established and commissioned the Coordinating Council for International Education to prepare a *National Strategy for International Education*—representing the first ever, whole-of-government strategic commitment to the advancement of Australia's international education endeavour. While yet to be completed, the scope of the *National Strategy for International Education* is comprehensive and intended to provide the policy foundations for a strong, sustainable and globally competitive international education system.

International  
education is now  
Australia's largest  
services export  
and third largest  
export earner

## Australian universities continue their commitment to:

- Advance Australia as a destination of choice for students, academic staff and researchers.
- Provide quality assured undergraduate, postgraduate and research education to international students both onshore and offshore.
- Provide an enriching, safe and socially engaged student experience.
- Grow the number of Australian students incorporating an overseas study experience into their degree, including through the New Colombo Plan.
- Increase and deepen education and research engagement and collaboration with first class overseas institutions.
- Strengthen the extent to which English language proficiency is embedded in the curriculum.
- Expand student housing services and the stock of student accommodation.
- Continue efforts to internationalise curricula.
- Strengthen processes for detecting qualifications and assessment fraud.
- Work with governments to implement, on completion, the *National Strategy for International Education*.

## Universities need government to:

- Fully fund and implement the recommendations of the *National Strategy for International Education*, particularly in relation to employability of international students, enhancement of the student experience, research excellence, and promotion.
- Retain the Coordinating Council for International Education as the oversight body for ensuring a whole-of-government policy approach to international education.
- Increase the level of investment in promoting Australia as a destination for international education.
- Ensure that the quality assurance framework protects the international reputation of Australia's higher education system.
- Provide adequate funding to support and expand Australia's global research collaboration.

## Why global engagement matters

- **International education is Australia's third largest export<sup>47</sup>, and largest services sector export, contributing around \$18 billion to our GDP in 2014–15.** Higher education accounts for around \$12 billion, or approximately two thirds of this total.<sup>48</sup>
- Fee paying international students contributed \$4.3 billion, or 16.5 per cent, of university revenues in 2013.<sup>49</sup>
- International education **supports almost 130,000 jobs** across every state and territory and is a significant **economic contributor to regional economies.**<sup>50</sup>
- International education is a major contributor to soft diplomacy and people to people links. Many of our region's leaders were educated in Australia and maintain ongoing relationships with former colleagues.
- The mobility of our international and domestic students bolsters our connections with our region and the world.
- International students help us to fill skills gaps in our workforce. In 2013–14, **around one third of the skilled migrants to Australia were former international students.**<sup>51</sup>
- International education **opens the way for new partnerships in research collaboration** and provides opportunities to showcase Australia's strength and capacity in research and innovation.

## Our performance

- **Australia is the fifth most popular destination in the world for international students.**<sup>52</sup> This is remarkable considering the age and relatively small size of our higher education system.
- Of the top five destinations for international students, Australia is one of only two countries that has increased its share of the market over the last decade, from 5.1 per cent in 2000 to 5.5 per cent in 2012.<sup>53</sup>
- International education is among the five most significant sectors driving the next wave of Australia's economic growth and prosperity.<sup>54</sup>
- Since 2002, Australia has educated 1.86 million students from over 140 countries.<sup>55</sup>
- Over 40 per cent of our academic workforce was born overseas compared to 25.7 per cent of the Australia's total workforce.<sup>56</sup>
- Almost half of Australia's research is published with an international co-author.<sup>57</sup>
- An international benchmarking survey indicates that in 2014, **88 per cent of international students enrolled in Australian universities are satisfied or very satisfied with their overall experience in Australia**, an improvement on 2010 and 2012 figures.<sup>58</sup> The reasons why students choose to study in Australia include the reputation of Australian universities, the quality of teaching and personal safety.
- Over the last five years, Australian universities have doubled the number of Australian students travelling offshore to study and obtain cross cultural skills and knowledge.<sup>59</sup>

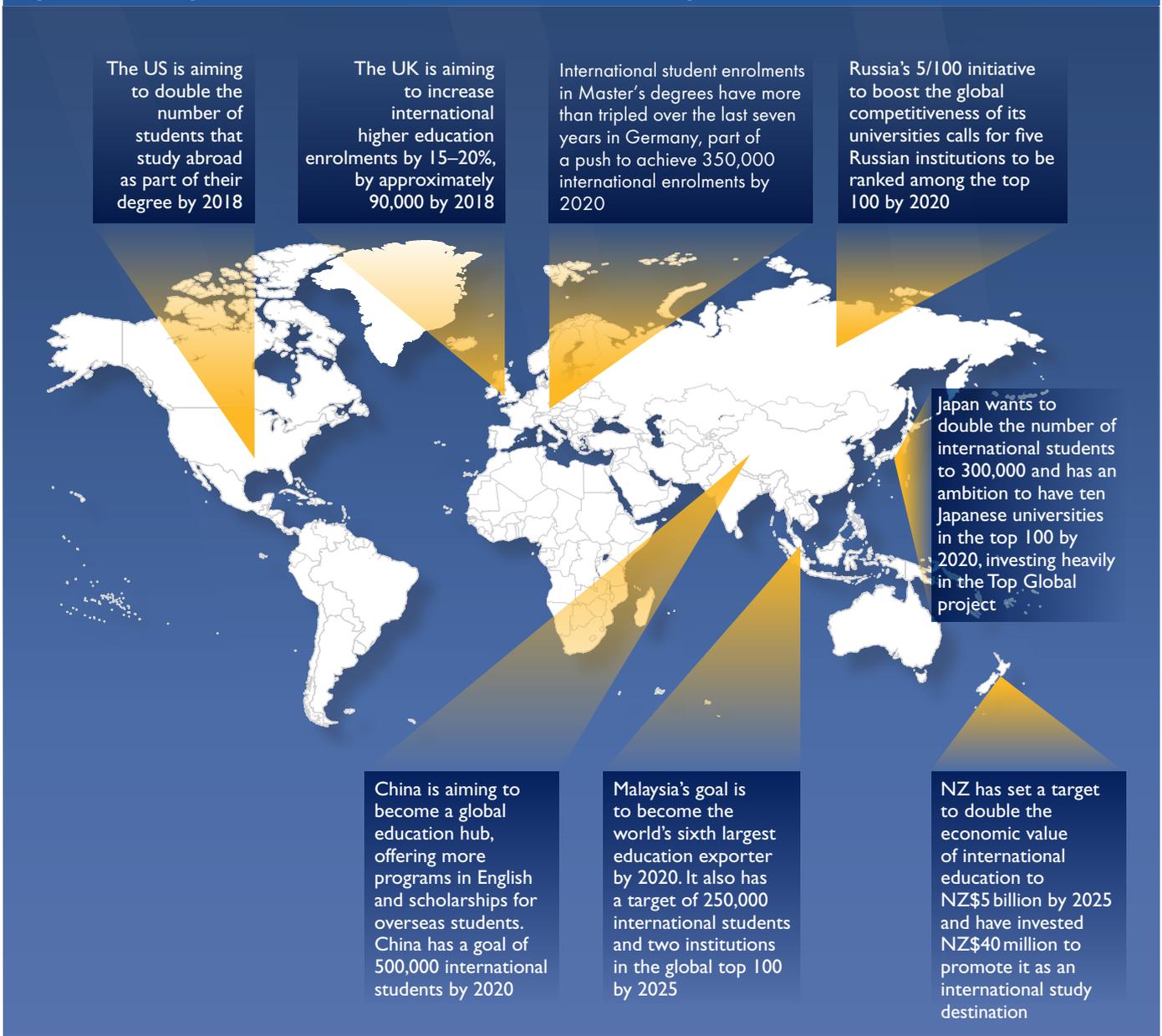
## Our challenges

Many of the challenges outlined below are being addressed by the *National Strategy for International Education*. **Whole-of-government oversight, commitment and implementation is required** for the strategy to manage these challenges successfully. Universities Australia supports the continuation of the Coordinating Council for International Education.

### *Increasing international competition*

Australia is facing increasing competition as traditional source countries invest heavily in their own higher education systems and develop their own international education strategies. Many nations are aggressively pursuing growth in student numbers. This, combined with investment in research, will translate into success. **Unless we meet the challenge of increased international competition, this success could come at Australia's competitive expense.**

**Figure 8: Competitors' international education strategies<sup>60</sup>**



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### *Employability and employment*

Increasingly, **international students expect that relevant work experience will be provided as part of and/or as an adjunct to their study.** While universities are improving opportunities available through work-integrated learning, including through the National Work Integrated Learning Strategy, the introduction of the new Post Study Work Visa (PSWV) has created expectations that relevant work opportunities will be available for international graduates. International students have expressed a high degree of frustration that these expectations are not being fully met.

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### *Accommodation*

**The quality of the student experience is critical to maintain Australia's international education reputation and competitiveness.** Accommodation is a key issue for international students. A survey of university and college accommodation indicated that in 2015 there were 74,482 purpose-built student accommodation places nationally; 50,018 of these are located on campus.<sup>61</sup> This is insufficient given that there are over 250,000 international university students onshore, in addition to the local students seeking accommodation. By comparison, the United Kingdom has seven times as many on campus, purpose-built student accommodation places and the number of places in the United States is approaching three million.

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### *Qualifications recognition*

While a proportion of international students stay and contribute to Australia as skilled migrants, the significant majority either return home or travel to a third country. In order for their efforts to be duly recognised, their qualifications must be recognised for employment, professional recognition and future study. There is work to be done with foreign governments and accrediting bodies to ensure Australian qualifications are recognised, including those delivered online or through non-traditional pathways.

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### *Quality assurance and regulation*

**Reputation is central to success in international education and research,** and is built on a commitment to quality and quality assurance. The government's commitment to red-tape reduction is supported but it must be within a framework of risk based management. Rewarding good outcomes in education and immigration integrity with reduced red-tape and regulatory burden is a welcome step. This allows attention to be focussed on areas of higher risk, which both protects Australia's brand and reinforces incentives for good practice across the industry.

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