A strong and growing tertiary education sector is critical to the economic and social future of NSW. The development of an educated and skilled workforce is vital to building our productivity growth and to keeping us internationally competitive.

NSW has a quality tertiary education sector and I am committed to strengthening the collaboration between the NSW Government and the tertiary education sector to achieve the best outcomes for the people of NSW.

The Tertiary Education Plan sets out a vision and strategies for how the NSW Government, the tertiary education sector and industry can work in partnership to ensure that the State’s priorities are met, including:

■ increasing participation and attainment
■ developing a highly educated and skilled workforce, and
■ facilitating research and development and innovation.

I’m delighted that NSW universities have been so diligent at delivering on their objectives, as defined within the NSW Acts that establish them. I believe that together we can do more. This Plan will sharpen the focus of the NSW Government’s partnership with the tertiary education sector.

I look forward to strengthening our collaboration with the tertiary education sector for the people of NSW.

Kristina Keneally MP
Premier of NSW, and Minister for Redfern Waterloo
Foreword

BY THE MINISTER FOR
EDUCATION AND TRAINING

The NSW higher education and vocational education and training sectors play a critical role in driving the State’s economic, social and cultural development.

As we enter a new phase of renewal and growth in tertiary education provision, we must ensure that our graduates have the skills and knowledge to meet the State’s workforce needs into the 21st century.

The NSW Tertiary Education Plan sets out priorities for a more highly educated, highly skilled and inclusive workforce. Building on the Clever State initiatives in the NSW State Plan, our aim is to boost productivity and economic growth for the benefit of all the people of NSW.

Many people were consulted in the preparation of the Plan and I thank them for their involvement. The Government looks forward to working with the sector to further develop and implement its strategic directions.

Verity Firth MP
Minister for Education and Training

BY THE MINISTER FOR SCIENCE
AND MEDICAL RESEARCH

A diverse and vibrant research community is fundamental to an innovative State.

The NSW Government is firmly committed to supporting growth in our research community, and the Tertiary Education Plan is another resolute and important step.

Through the Plan we will work with the tertiary education sector, the Commonwealth Government and the private sector to further develop the scale, quality and effectiveness of research in NSW.

This Plan forms part of a package of initiatives – including the NSW Knowledge Statement and the Premier’s Business University Government Forum – that recognise the value of a partnership approach to the creation, application and dissemination of knowledge for a ‘Clever State’.

High value jobs, innovative and productive industries – these are our shared goals, and I look forward to working with the research sector on their delivery.

Jodi McKay MP
Minister for Science and Medical Research
Executive summary

The NSW Tertiary Education Plan outlines our vision for strong and effective partnerships between government and the tertiary education sector, to drive the economic, social and cultural development of New South Wales.

Our overall objective is to support high quality tertiary education, made available to a greater number and wider range of people in NSW.

The Plan sets out six strategic priorities for better aligning the tertiary education sector with the State’s priorities for economic and social development. The priorities and their supporting directions have been informed by feedback from submissions and consultation.

1. Increasing participation and attainment in tertiary education to boost productivity

2. Developing a highly educated and skilled workforce to support economic growth, innovation and social inclusion

3. Supporting regional development and sustainability

4. Supporting education and research infrastructure initiatives

5. Facilitating research and development (R&D) and innovation

6. Attracting international students and enriching their Australian experience

The State recognises that a strong and growing tertiary sector is critical to our economic future. In recognition of this, both longer-term strategies and immediate actions are required.

This Plan therefore also identifies ten immediate commitments that the NSW Government will pursue in partnership with education providers, business and the community:

1. Better integrate the tertiary education sector into the State’s economic planning

2. Set a target to increase the percentage of 25 to 34 year olds in NSW who hold a bachelor degree or above to 44 per cent by 2025

3. Increase enrolments in higher education in NSW by students from low socio-economic backgrounds to 20 per cent of university enrolments by 2020

4. Promote better links between schools and universities to lift participation and attainment and university enrolments especially in schools serving low socio-economic communities and regional NSW

5. Provide a more flexible and responsive regulatory and planning environment

6. Support and encourage the building of larger concentrations of research excellence in NSW

7. Leverage Commonwealth infrastructure funding for NSW universities through mechanisms such as the NSW Knowledge Fund and the Science Leveraging fund.

8. Establish more effective consultative mechanisms between the State and Commonwealth governments, industry and the tertiary sector to better align graduate supply with immediate and longer-term NSW workforce needs

9. Work with business, vocational education and training and higher education providers, to develop effective pathway programs into higher education to lift participation and attainment

10. Support TAFE NSW to develop a role as a degree-granting higher education provider
Tertiary education is a cornerstone of a strong and skilled economy. The tertiary education sector in New South Wales is already a major contributor to the State and nation’s economic growth and social well-being.

New South Wales accounts for a significant proportion of Australia’s public and private tertiary education providers, as well as much of its research and development infrastructure and investment.

Our universities and private higher education institutions educate over 30 per cent of Australia’s future professionals. Our providers of vocational education and training enrol more than 30 per cent of the national student total.

Two of New South Wales’ universities – the University of Sydney and University of New South Wales – are ranked in the top 50 in the Times HES ranking.

The State also boasts more than 50 non-university higher education providers – more than a third of the national total.

In 2009, the ten NSW TAFE institutes, which have more than 130 campuses and colleges across the State, enrolled almost 525,000 students in vocational and further education courses. Alongside of TAFE NSW there are around 1,060 Registered Training Organisations in New South Wales also providing skills qualifications.

Over the past five years, NSW has accounted for approximately 39 per cent of all international students in Australia. In 2009, about 238,300 international students enrolled in the NSW education sector, including at schools, vocational education and training, ELICOS and higher education providers.

New South Wales is a leader in cutting-edge research in a number of fields. It is home to a number of Australian Research Council Centres of Excellence research centres, and is host to several important national research facilities.

The Plan aims to provide a strategic framework for building on these strengths and enhancing our potential to support:

- higher levels of skills and knowledge in the community, particularly amongst groups that are under-represented in tertiary education
- more and better quality research output
- industry innovation, particularly in those areas identified in the NSW Innovation Strategy

The priorities are:

1. Increasing participation and attainment in tertiary education to boost productivity
2. Developing a highly educated and skilled workforce to support economic growth, innovation and social inclusion
3. Supporting regional development and sustainability
4. Supporting education and research infrastructure initiatives
5. Facilitating research and development (R&D) and innovation
6. Attracting international students and enriching their Australian experience

The priorities and their supporting directions have been informed by feedback from submissions and consultation.
IMMEDIATE COMMITMENTS

The continued expansion and growth of the tertiary sector in a way that supports the economy and people of the State will best be achieved by a sustained effort across all priority areas.

To remain competitive globally, the State recognises the need to take some immediate decisions and steps to keep the NSW tertiary sector at the forefront of national reform.

To this end, the NSW Government has identified ten immediate commitments that will be pursued in partnership with education providers, business and the community.

1. Better integrate the tertiary education sector into the State’s economic planning

New South Wales views the growth and development of the tertiary sector within the State as critical to ensuring continued economic growth and productivity. The State currently supports and engages with the sector through direct and indirect funding, regulation and initiatives with individual Government departments.

This commitment will see the tertiary sector recognised as an integral part of the State’s economic future. The Government will work with the sector to ensure that collaborative action is taken to better harness the growth of the tertiary sector as a driver of economic activity.

2. Set a target to increase the percentage of 25 to 34 year olds in NSW who hold a bachelor degree or above to 44 per cent by 2025

The Government agrees that the economic challenges of the future support there being a national target of 40 percent of Australians aged 25 to 34 holding a degree by 2025.

New South Wales currently has more young people with bachelor degrees than the national average. This reflects the structure of the State’s economy, which is relatively more reliant on high skill jobs.

New South Wales must remain a high-skill economy if Australia is to meet the challenges of the future. As a State, we must therefore continue to expand the skill-intensity of the workforce and produce a disproportionate share of the increase needed in degree qualified people.

A target of 44 per cent has been set so that the State can work to develop education and training policies that will meet this target.

The Commonwealth Government has set the target of 40 per cent of 25 to 34 year olds in Australia holding at least a bachelor degree by 2025. Using population projection data provided by the ABS, by 2025 Australia will need an estimated 1.47 million 25 to 34 year olds with a bachelor degree (or higher) to reach a national bachelor attainment rate of 40 per cent.

If, in 2025, NSW contributes the same percentage share to the national total as it did at the time of the last Australian Census (35.2 per cent), we will need to have approximately 44.4 per cent of the 25 to 34 year old population with a bachelor degree (or higher) if Australia is to reach its target attainment rate.

It is recognised that this is a substantial challenge. If the aim is to be realised, almost half of the students in Year 7 this year will need to be prepared to enter and successfully complete a higher education qualification.

3. Increase enrolments in higher education in NSW by students from low socio-economic backgrounds to 20 per cent of university enrolments by 2020

The Government strongly supports the Commonwealth’s commitment to this target nationally and will support this with an equivalent NSW target.

To meet this target the Government will work to lift access to university by students from disadvantaged schools and through vocational education and training pathways.

4. Promote better links between schools and universities to lift participation and attainment and university enrolments especially in schools serving low socio-economic communities and regional NSW

The NSW Government has provided an additional $237 million in funding to create the National Partnership
for Low Socio-Economic School Communities. This, together with $593 million in Commonwealth funding, will provide additional support to schools serving low socio-economic status communities to lift student attainment.

Improved transition to university and higher level vocational education and training will be a priority for the schools in the National Partnership. The Government will also work with Universities to develop partnerships and programs that can directly link these schools with greater access to the tertiary sector.

The Government will also request that the Commonwealth Government undertake steps to better align the schools National Partnership efforts with the university programs (such as the Higher Education Participation and Partnerships Program).

5. Provide a more flexible and responsive regulatory and planning environment

NSW will investigate with universities, the Commonwealth and other jurisdictions, ways to better align financial and other reporting by universities to eliminate areas of overlap and duplication, and will explore ways to streamline approval procedures for their major infrastructure developments.

6. Support and encourage the building of larger concentrations of research excellence in NSW

The Government wants to ensure that our research sector is equipped for excellence in areas of strategic significance to the State and produces high-impact research that makes material improvements to the community. Our funding commitments through a variety of funding mechanisms such as the Knowledge Fund and Science Leveraging Fund will support this aim.

7. Leverage Commonwealth infrastructure funding for NSW universities through the NSW Knowledge Fund and other mechanisms

The Government will make funding and in-kind commitments in a strategic way to assist NSW universities in securing Commonwealth and other funding for capital works.

8. Establish more effective consultative mechanisms between the State and Commonwealth governments, industry and the tertiary sector to better align graduate supply with immediate and longer-term NSW workforce needs

The Government recognises the critical importance of collaboration around workforce supply and meeting skills demand as we move towards the full implementation of an uncapped student demand driven enrolment model in universities from 2012.

9. Work with business, vocational education and training and higher education providers, to develop effective pathway programs into higher education to lift participation and attainment

There are many examples of providers and business working together to provide students with sound pathways between vocational and higher education qualifications. To meet our States’ skill needs, the Government will support the sector to develop better ways of integrating and delivering higher level vocational and higher education programs that are responsive to industry and workforce supply needs.

10. Support TAFE NSW to develop a role as a degree-granting higher education provider

TAFE NSW has recently been registered as a higher education provider in NSW. With its extensive reach throughout the State, TAFE NSW is well-positioned to be a major participant within the sector in driving up participation in higher level qualifications.
KEY THEMES FROM THE CONSULTATION

Consultations on the Tertiary Plan were held in June and July 2010. Written submissions were received from 39 individuals and organisations and consultation meetings were held across regional NSW. The consultations indicated a strong degree of support for the Plan, with many respondents supporting a more active role for the State in the development of the tertiary education sector.

The following key themes have helped to shape the directions that are proposed within the Plan.

■ Participation and attainment
Increasing levels of tertiary participation and attainment will deliver improved economic and social benefits for individuals, communities and the State as a whole.

■ Workforce development and supply
Better partnerships and collaboration is needed between the NSW Government, the Commonwealth, tertiary providers and business and industry to align graduate supply with workforce need, particularly in the context of the lifting of the cap on funded higher education enrolments from 2012.

■ Regional provision
Broad based Tertiary education provision in regional areas focused on supporting the local professional and industry workforce needs is critical in fostering economic development and community cohesion.

■ Data and planning
A more strategic and long-term approach to tertiary education provision needs better data on participation and attainment and long-range forecasting on labour market and industry needs.

■ Innovation and research
NSW has a strong and dynamic research and development environment which can be leveraged to attract more Commonwealth and private-sector investment in research funding.

■ A flexible and efficient regulatory environment
There is scope for better alignment of State financial and other reporting accountabilities with Commonwealth requirements, to minimise duplication and overlap. Universities also called on the Government to consider streamlined planning processes for large scale infrastructure projects and consider changes to their legislation to allow for more flexible governance approaches.

■ International education
Ongoing Government support is needed to ensure a sustainable international student market. Current Commonwealth and State initiatives to improve the experience of international students in NSW are strongly supported and a range of further initiatives were proposed.

■ Recognition of private providers
A Plan should provide recognition of the contribution of the State’s private higher education and vocational education and training, and community education providers to tertiary participation and attainment in NSW.

■ A partnership approach
For a Tertiary Education Plan to be effective there must be an ongoing commitment from Government, universities, vocational education and training providers, business and industry to work in partnership.
Increasing participation and attainment in tertiary education to boost productivity

Australian workforce projections show that in the long term, demand for workers with higher skills will continue to grow, while demand for unskilled workers will decrease.

To help meet these future workforce demands, State, Territory and Commonwealth Governments are implementing a range of reforms through COAG, through national partnerships and the Commonwealth’s higher education reform agenda to lift participation and attainment.

National targets have been set for the senior school, vocational education and training and higher education sectors (see table).

In addition to supporting these targets, the NSW State Plan, as part of its Clever State initiatives, has an even higher school (or equivalent) attainment target – 90 per cent of 20 to 24 year olds holding a Year 12 or Certificate III qualification by 2020.

According to recent KPMG Econotech estimates, reaching the Commonwealth’s national 40 per cent bachelor attainment target by 2025 could contribute an additional 1.2

<table>
<thead>
<tr>
<th>Target year</th>
<th>National targets</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>90 per cent of young people aged 20 to 24 achieving Year 12 (or a Certificate II qualification or higher).</td>
</tr>
<tr>
<td>2020</td>
<td>At least halve the gap for Indigenous students achieving Year 12 (or equivalent).</td>
</tr>
<tr>
<td></td>
<td>Halving the population of 20 to 64 year olds without Certificate III (or higher) qualifications.</td>
</tr>
<tr>
<td></td>
<td>Doubling the number of higher qualification completions (Diploma and Advanced Diploma).</td>
</tr>
<tr>
<td>2025</td>
<td>20 per cent of higher education enrolments at undergraduate level will be of people from low socio-economic backgrounds.</td>
</tr>
<tr>
<td></td>
<td>40 per cent of all 25 to 34 years olds will hold a qualification at bachelor level or above.</td>
</tr>
</tbody>
</table>
per cent annually to the GDP (Gross Domestic Product) over the next thirty years, and achieving the national Vocational Education and Training (VET) targets could contribute an additional 1.7 per cent to the GDP over this same period.¹

Having more people in NSW with tertiary qualifications will also bring a wide range of social benefits that are not easily measured by dollars and numbers, including healthier and more harmonious communities, reduced rates of crime, and an improved standard of living for all.

The NSW Government shares with the Commonwealth Government the aim of improving access to further education for those groups traditionally underrepresented in tertiary education, in particular Aboriginal and Torres Strait Islander people, people from regional and remote areas and those from low socio-economic (SES) backgrounds.

### Improving higher education participation and attainment

According to recent ABS estimates, about 35.4 per cent of 25 to 34 year olds in New South Wales have a bachelor degree or higher qualification, slightly higher than the national average of 33.3 per cent.

The Commonwealth Government has set the target of 40 per cent of 25 to 34 year olds in Australia holding at least a bachelor degree by 2025. Using population projection data provided by the ABS, by 2025 Australia will need an estimated 1.47 million 25 to 34 year olds with a bachelor degree (or higher) to reach a national bachelor attainment rate of 40 per cent.

If, in 2025, NSW contributes the same percentage share to the national total as it did at the time of the last Australian Census (35.2 per cent), we will need to have approximately 44.4 per cent of the 25 to 34 year old population with a bachelor degree (or higher) if Australia is to reach its target attainment rate.

The NSW Government is therefore adopting a target that by 2025, at least 44 per cent of 25 to 34 year olds in NSW will hold a bachelor degree (or higher).

The Commonwealth has also set a target that by 2020, 20 per cent of domestic students enrolled in undergraduate degrees will be from low socio-economic status backgrounds. On the current measure of socio-economic status in higher education (currently under review), approximately 25 per cent of the population are classified as low socio-economic status. The higher education participation rate nationally for this group is about 16 per cent, well below their population share of 25 per cent.

The NSW Government supports the 20 per cent national enrolment target. In 2008, the participation rate for low socio-economic status students in NSW was slightly higher than the national average (16.7 per cent compared to 16.1 per cent).

The NSW Government is committed to a State target to have at least 20 per cent of domestic undergraduate students (or an equivalent proportion under the new socio-economic status measure) in NSW from low socio-economic status backgrounds by 2020.

¹KPMG Measuring the Impact of the Productivity Agenda (Feb 2010)
Key messages for this priority

- NSW needs a more integrated and coordinated approach to tertiary education that widens access across the State, enabling more students to move readily between VET and higher education.

- Increasing the number of jointly developed and delivered programs, such as diploma-to-degree and Associate Degree courses is an important direction for opening up access to higher education for more students.

- Universities should consider setting targets to increase Aboriginal student enrolments.

- More students need to have access to funding support for integrated programs (such as Commonwealth income-contingent loans), and wider access to Commonwealth infrastructure funding is needed to support tertiary infrastructure development.

- Partnerships between schools and universities to lift attainment and higher education participation for low socio-economic status background students and Aboriginal students should be supported with data to assist better tracking and to enable evaluation to identify the most effective partnership initiatives.

- Flexible delivery, including online and distance education, and better arrangements for part-time students will play an important role in increasing participation and attainment in tertiary education.

- The roll out of the National Broadband Network (NBN) across NSW is an excellent opportunity for many providers to expand their reach and to grow regional and remote participation.

- Strategies aimed at increasing participation, retention and attainment rates will be most effective when targeted at specific regions and groups – as well as communities within regions. Better data is needed to pinpoint specific areas of need.

- The focus on increasing participation should include specific initiatives to lift attainment and qualification levels for Aboriginal people, building on the COAG targets and strategies set out in the NSW Aboriginal Education and Training Strategy 2009-12.
### Increasing participation and attainment in tertiary education to boost productivity

#### Key strategies
- Set a target to increase the percentage of 25 to 34 year olds in NSW who hold a bachelor degree or above to 44 per cent by 2025
- Increase enrolments in higher education in NSW by students from low socio-economic backgrounds to 20 per cent of university enrolments by 2020
- Work with business, vocational education and training and higher education providers to develop innovative pathway programs into higher education to increase participation and attainment
- Support TAFE NSW to develop a role as a degree-granting higher education provider
- Promote better links between schools and universities to lift participation and attainment and university enrolments especially in schools serving low socio-economic communities and regional NSW
- Request that the Commonwealth Government undertake steps to better align the schools National Partnership efforts with university programs, such as the Higher Education Participation and Partnerships Program
- Support tertiary education providers, in consultation with industry and business, to create flexible educational delivery models that meet the learning needs of a wider range and greater number of people, particularly through increasing the number of jointly developed and delivered vocational and higher education programs leading to a higher education qualification
- Identify and promulgate the most effective strategies and initiatives to increase tertiary access, retention and attainment rates for under-represented groups, especially to lift tertiary education attainment for Aboriginal people
- Improve data collection, reporting and analysis to better understand the rates of participation and attainment across NSW and to measure the impact of programs to increase participation and attainment
- Support regional universities to implement train and retain initiatives that provide for key professional workforce needs in regional NSW, such as health and education

#### Outcomes
- NSW meets its participation targets
- Sustained growth in tertiary participation and attainment in New South Wales
- Growth in the numbers of students completing integrated pathway programs linking VET and higher education qualifications
- Growth in the numbers of students from Low Socio-Economic Status Communities National Partnership Schools and Aboriginal students, taking a direct pathway to university and completing a degree
- Higher level of participation in tertiary education in regional NSW by students from rural and remote areas
- Improved understanding of the variations in participation and attainment rates across NSW and within different equity groups
- Strategies and programs aimed at increasing participation and attainment levels are monitored and assessed
Developing a highly educated and skilled workforce to support economic growth, innovation and social inclusion

One of the biggest challenges facing the State is ensuring that our citizens have the necessary knowledge and skills to maintain a strong economy and our position as a key driver of the national economy.

People with post-school qualifications have higher rates of workforce participation, lower rates of underemployment, and are more likely to be working fulltime compared to people without a post-school qualification.

According to recent Australian Bureau of Statistics data:

- The national labour force participation rate for working-age people with a bachelor degree (or higher) is nearly 18 percentage points above people without a post-school qualification (ABS 4102 – June 2010).
- Of the workers who reported being underemployed in 2009, more than half (54 per cent) had Year 12 or below as their highest level of educational attainment, whereas people with a bachelor degree or higher formed only an 18 per cent share of underemployed workers (ABS 4102 – June 2010).
- More than three-quarters (77 per cent) of employed persons with a post-school qualification are working full-time, compared to 62 per cent of employed people without a post-school qualification (ABS 6227 – May 2009).

The NSW economy needs a highly-skilled workforce to secure its competitive advantage and long-term economic development.

We want to ensure that there are more highly-skilled graduates to meet key State and regional workforce needs and to maximise the potential for innovation and productivity.

Growing the proportion of the workforce gaining higher qualification will lift its productivity and build the State’s research capacity, encouraging high levels of research and development to be performed to international standards in NSW.

We also want the opportunities and benefits that higher levels of attainment can bring to individuals to be available to more people. We know, for example, that a person with a bachelor degree can earn 40 to 45 per cent more in their lifetime than if they had no post-school qualification.

With about one in three Australians choosing to live in New South Wales, the NSW Government is one of Australia’s largest employers of essential frontline personnel, including teachers, police, social and health-care workers. The professionalisation of these workforce areas over the past few decades has resulted in an increased reliance on university graduate supply.

In addition, many of our regional areas face special challenges in attracting, developing and retaining skilled workers.

Better planning arrangements and stronger partnerships between the State and Commonwealth governments, universities, TAFE NSW, and business and industry are critical to ensuring that our workforce supply needs, and knowledge and skills requirements are met.
Key messages for this priority

- Enhanced Commonwealth/State/university consultative and planning arrangements are needed to ensure better alignment of graduate supply in health courses with NSW workforce needs
- Better access to workforce projection data is needed to improve provision and access to local labour market data for the planning of tertiary courses and pathways was highlighted as a particular need
- More industry and business input into planning and development of tertiary education programs is needed to ensure they are relevant to future workforce requirements
- Flexible access to further education and training for people of all ages and in all regions of NSW is critical to support skills development
- A continuing focus on core skills, in particular in language, literacy and numeracy from early childhood onwards, should underpin the drive to have a highly skilled workforce
- More opportunities should be available for people to up-skill to meet changing market and workforce demands and to develop advanced skills within the workforce to drive innovation
- Provision of local tertiary education opportunities in regional areas is the single most influential factor in growing participation and retaining professional skills in rural locations

Teacher Education and Teacher quality

- Better manage primary teacher training enrolments across NSW universities, to align with need and improve quality
- Attract and retain more secondary mathematics and science teachers
- Improve teaching practicum for pre-service teachers and increased professional development to up-skill teachers in key areas such as mathematics and science

Health

- Develop new more effective models for clinical placements to improve access to clinical training
- Develop educational incentives to train and retain more health sector workers into rural and regional areas
- Provide for flexible training programs that can quickly incorporate new practices in the health and allied fields
- Support initiatives to increase the number of Aboriginal people in the Health workforce
- Improve collaboration between universities and health workforce employers to better manage graduate numbers, training program requirements and course pathways

Engineering and ICT

- Improve the pathways from VET to higher education for programs in these areas, as well as the supply of graduates with high level mathematics skills

Clean Energy and Green Skills

- Develop an expert workforce in clean energy technologies

Other areas highlighted for specific emphasis included:

- Education & Research (including the ageing academic workforce)
- Finance, Insurance, Professional and technical services
- Tourism
- ICT
- Creative Industries
- Advanced Manufacturing (including defence)
- ‘Smart’ Infrastructure
- Mining
- Agriculture & Food
- Environment, Climate Change and New Energy Sources
- Transport, Logistics and Storage
Developing a highly educated and skilled workforce to support economic growth, innovation and social inclusion

<table>
<thead>
<tr>
<th>Key strategies</th>
<th>Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>■ Establish more effective collaborative arrangements and consultative</td>
<td>■ Increased enrolments and completions (including through up-skilling) in tertiary courses linked to identified State and regional workforce needs</td>
</tr>
<tr>
<td>mechanisms between the State, Commonwealth, industry and the tertiary</td>
<td>■ Reduced skills shortages in areas of State workforce need, particularly engineering, health and selected teaching areas</td>
</tr>
<tr>
<td>sector to better align tertiary education provision with immediate and</td>
<td>■ More tertiary providers working with industry to develop and deliver flexible education and training programs that produce high quality, work-ready graduates in areas of workforce need</td>
</tr>
<tr>
<td>long-term NSW workforce needs</td>
<td>■ Increased numbers of graduates with high-level skills that support innovation, especially in the area of clean energy technology</td>
</tr>
<tr>
<td>■ Produce a NSW workforce skills strategy to 2020 to inform tertiary sector</td>
<td>■ Improvements in teacher quality and supply in the school, vocational education and training and higher education sectors</td>
</tr>
<tr>
<td>planning</td>
<td>■ Improved arrangements for clinical placements and better tertiary provision for regional medical and allied health workforce needs</td>
</tr>
<tr>
<td>■ Encourage tertiary providers to develop flexible, accredited professional</td>
<td></td>
</tr>
<tr>
<td>development and up-skilling programs, particularly through AQF-</td>
<td></td>
</tr>
<tr>
<td>recognised Diplomas and Advanced Diplomas, for workers to meet changing</td>
<td></td>
</tr>
<tr>
<td>industry and business demands</td>
<td></td>
</tr>
<tr>
<td>■ Conduct research into, and piloting of, programs that better integrate</td>
<td></td>
</tr>
<tr>
<td>vocational and higher education qualifications targeted to workforce</td>
<td></td>
</tr>
<tr>
<td>demand and ensure that business and industry have a key role in this work</td>
<td></td>
</tr>
<tr>
<td>■ Provide data and advice on key workforce needs annually to the</td>
<td></td>
</tr>
<tr>
<td>Commonwealth, NSW universities, tertiary providers and careers advisors</td>
<td></td>
</tr>
<tr>
<td>to inform course provision and student choice</td>
<td></td>
</tr>
<tr>
<td>■ Identify skills to support innovation and ensure these are included</td>
<td></td>
</tr>
<tr>
<td>in consultations with the Commonwealth and universities on course provision,</td>
<td></td>
</tr>
<tr>
<td>particularly with respect to the State’s innovation sectors</td>
<td></td>
</tr>
<tr>
<td>■ Improve clinical placements and teacher practicum provision through</td>
<td></td>
</tr>
<tr>
<td>closer cooperation between State and Commonwealth governments and universities</td>
<td></td>
</tr>
<tr>
<td>■ Work in close cooperation with universities to ensure improvement in</td>
<td></td>
</tr>
<tr>
<td>teacher quality</td>
<td></td>
</tr>
<tr>
<td>■ Support initiatives to increase tertiary provision for medical and allied</td>
<td></td>
</tr>
<tr>
<td>health workforce in regional NSW, including initiatives to grow the number</td>
<td></td>
</tr>
<tr>
<td>of Aboriginal students in tertiary health science and medical training</td>
<td></td>
</tr>
<tr>
<td>■ Support universities’ strategies and initiatives to address emerging</td>
<td></td>
</tr>
<tr>
<td>shortages in the higher education workforce</td>
<td></td>
</tr>
</tbody>
</table>
Regional and remote areas across NSW face a number of distinct challenges in raising participation rates and levels of educational attainment.

Many of these challenges also relate to individual regions, as well as communities and groupings within them. There are many areas of regional and remote NSW with much lower rates of tertiary participation and attainment compared to other regional and remote areas.

Similarly, some parts of metropolitan Sydney have much lower participation and attainment rates relative to the greater Sydney averages.

The Commonwealth’s recent report Regional Participation: The Role of Socioeconomic Status and Access states that “regional participation in university among 19-21 year-old students increased from 18 per cent in 1996 to 21 per cent in 2006. However, university participation among metropolitan students increased faster from 28 per cent to 35 per cent, so that the gap between regional and metropolitan participation increased from 10 percentage points to 12 percentage points.” (DEEWR May 2010)

Universities are critical to the viability of regional economies as investors in regional development, producers of research into local priority areas, developers of workforces with high-order skills and as major employers in regional New South Wales. They can also play an important role in sustaining and building social inclusion.

As important, is the role played by regional vocational education and training providers, both public and private, but in particular TAFE NSW. In 2009, TAFE NSW had over 259,000 enrolments from students in regional areas in NSW.

While our regional vocational education and training providers, community education organisations and universities continue to make a difference, it is clear that more effort is needed to increase educational attainment in regional and remote areas of the State, especially in training and educating the workforce needed to support local economies.

The barriers to tertiary education participation and attainment in rural and regional areas can be significant and include:

- higher costs of tertiary education delivery in regional areas compared with metropolitan areas – which can limit access to, and choice of educational opportunities
- dislocation for students – many must typically move away from home or travel long distances to access education and training
- local tertiary education offerings may not be sufficiently aligned with workforce need and may not provide access to local employment opportunities
- often lower levels of school completion and attainment in regional and remote areas

The NSW Government will support strategies that reduce the gap between metropolitan and regional participation in tertiary education.

The Government will promote and support increased engagement between local vocational education and training providers and higher education institutions with business and industry.

**Key messages for this priority**

- Tertiary education policy and planning needs to give greater recognition to the significant gaps and variations between participation and attainment rates across NSW
- Regional tertiary education provision needs to be locally responsive. Tertiary education options must be linked closely to regional economic development and employment priorities. This needs to be informed by quality data
- Locally-developed initiatives and solutions that conform to the broad directions of the Plan would have the greatest prospect of success
- The Plan needs to foster, encourage and enable students in regional areas to fulfil the requirements for professional practice within their regions
Community and adult education providers in local communities can make a contribution to raising participation and attainment levels, as well as raise levels of ‘threshold’ engagement in further education and training.

Technology needs to be more actively harnessed to deliver tertiary education in parts of the State where there is no physical tertiary education infrastructure.

Roll-out of the National Broadband Network over the next few years presents opportunities for broader education and training delivery across the State.

After-hours and on-line learning options should be more widely available to enable workers in regional areas to access a wider range of education and training opportunities.

More effort needs to be made to attract international students and students from interstate to regional NSW, including through better marketing and promotion, particularly in the context of changes to Commonwealth immigration policies.

The importance of train and retain initiatives focused on students living in regional areas to build up the regional professional workforce was emphasised.

Regional tertiary education provision needs to cover the broad range of vocational and higher education course options.

Specific initiatives are needed to spark heightened education and training activity regionally. Leveraging from the Government’s Regional Innovation Strategy, these could include founding ‘centres of excellence’ in identified regional communities, or fostering specific government-industry partnerships to drive expanded educational opportunities based on a region’s industry profile.

Supporting regional development and sustainability

**Key strategies**

- Support more partnerships between regional vocational education and training providers, universities, business and industry to develop localised pathways and solutions for increased participation, including through co-located facilities, jointly-developed and delivered programs, improved credit transfer arrangements, and more flexible delivery.
- Identify and develop, in partnership with Regional Development Australia committees and employer groups, tertiary programs required to lift local participation and attainment levels to meet local skills shortages and needs.
- Provide up-to-date data on tertiary education participation and attainment across different regions of NSW to inform education provision.
- Expand university outreach programs to schools in regional areas, particularly programs linking with Low Socio-Economic Status Communities National Partnership schools, programs for Aboriginal students and students living in remote locations.
- Implement strategies that encourage and enable more rural and regional students to study and undertake work placements and internships in their local areas.
- Negotiate with the Commonwealth on reviewing the funding policy settings for aspects of vocational education and training and higher education to increase participation and lift attainment in regional areas including:
  - allowing access to funded higher education places for vocational qualifications leading to a higher degree
  - widening access to Commonwealth higher education infrastructure funding pools
- Assist universities to secure Commonwealth funding support to expand student accommodation in regional areas.

**Outcomes**

- Better understanding of regional participation and attainment rates and local workforce needs through improved data collection, reporting and analysis.
- Higher participation and attainment levels in tertiary education in regional and remote regions of the State, including for students from low socio-economic backgrounds and Aboriginal students.
- Reduced skills shortages in professional skills categories for regionally based businesses.
- More locally developed and delivered tertiary education programs to meet local workforce needs particularly in growth sectors of regional economies.
- Growth in joint vocational and higher education courses in regional areas and improved credit transfer opportunities.
- Increased regional education opportunities and greater cost efficiencies in education delivery through co-location and the use of new technologies (including online delivery).
The NSW Government recognises that universities have a range of ongoing infrastructure needs relating to teaching and learning provision, as well as research and student amenities including student accommodation.

The Government will explore ways to streamline planning processes to enable universities to respond more immediately to academic and commercial infrastructure needs, as well as student accommodation and transport needs.

The Government is also committed to working with all universities and vocational education and training providers to ensure they are able to leverage available Commonwealth funding to meet their infrastructure requirements.

The Government has been a significant supporter of NSW bids for research and education infrastructure available through Commonwealth programs, including the Education Investment Fund. This support has assisted in securing funding for initiatives such as the National Life Sciences Hub at Charles Sturt University, the Energy Technologies Building at the University of New South Wales, and a major refurbishment of the AutoCell Transport Technology Centre at the Sydney Institute of TAFE NSW.

NSW universities are the custodians of major research facilities and instrumentation, access to which is vital for cutting-edge research and development. The Government understands the value of these facilities and will continue to invest in partnership with universities under Commonwealth programs such as the Education Investment Fund and the Super Science Initiative.

Key messages for this priority

- Facilitate an increase in the availability of accommodation for domestic and international students, particularly in our metropolitan areas where the cost of living is considerably higher
- Universities would welcome more government assistance with raising capital for major infrastructure projects, particularly since the global economic crisis
- The NSW Government needs to continue to support making funds available, through the NSW Knowledge Fund and other initiatives, to leverage Commonwealth Government infrastructure funding
- Better alignment of State financial and other reporting requirements with Commonwealth requirements to avoid duplication and minimise compliance costs
- Provision overall of a more flexible and efficient regulatory environment including ensuring more flexibility in governance arrangements for universities
- More shared infrastructure between universities, and between universities, TAFE and other providers, particularly in regional areas would help broaden study options and lift participation
- There is potential for more co-location of universities with Commonwealth and private sector research institutions and facilities
- Streamlining of planning requirements for education and training provision (which in some cases can involve several local government authorities) should be a high priority, particularly for universities

Universities are important producers of the knowledge, skills and innovation required to realise many of the objectives of the NSW State Plan.
Supporting education and research infrastructure initiatives

**Key strategies**

- Better integrate the tertiary education sector into the State’s economic planning
- Provide a more flexible and responsive regulatory and planning environment and work with universities, the Commonwealth and other states to better align financial and other reporting by universities to eliminate areas of overlap and duplication and explore ways to streamline approval procedures for their major infrastructure developments
- Leverage Commonwealth infrastructure funding and other sources of funding for NSW universities through the NSW Knowledge Fund and other mechanisms
- Factor in to whole-of-Government regional and metropolitan planning processes the needs of the growing tertiary education sector and its associated communities
- Support universities to provide affordable student housing where the need is greatest
- Work with key private sector and Commonwealth Government research organisations to encourage more investment in and better utilisation of infrastructure, including through co-location and shared research infrastructure and improving access to facilities here and overseas for public and private sector researchers
- Facilitate shared infrastructure planning between universities, Government agencies and TAFE colleges and continue to support tertiary sector access to Commonwealth infrastructure funding, such as through the Infrastructure Investment Fund

**Outcomes**

- Reduced inefficiencies in planning assessment processes through development of long-term master plans
- Improved awareness of university campus growth plans within the whole-of-government planning framework
- Regulatory and reporting requirements at State and Commonwealth levels are better aligned
- More dedicated student housing for domestic and international students
- Increased Commonwealth Government infrastructure funds for NSW universities and vocational providers
- More efficient use of existing infrastructure
Growing the State’s research and development capabilities is necessary for our productivity growth.

Our knowledge sector, led by some of the finest universities and research institutions in the world, is a pivotal component in increasing innovation and creating the skills New South Wales needs for its future growth and prosperity.

The NSW Government supports building research excellence, capacity and impact. It is seeking to increase the number of professional researchers in the State, increase collaboration between businesses, universities and governments, and increase the overall expenditure on research and development in New South Wales.

Our knowledge ecosystem is made up of a complex network of businesses, universities, Government agencies, Commonwealth and independent research organisations and hospitals and government agencies. The individual organisations that make up the system all share a common need for research skills and rely heavily on our universities to continue to produce exceptional graduates and postgraduate researchers.

Diversity and a culture of innovation in our system are assets. The Government encourages participants in the system to find their niche and seeks to promote opportunities to fill gaps that are of the highest strategic value to the NSW community.

Several NSW Government agencies, often in conjunction with universities, play key roles through undertaking and funding research, and translating research into practice.

The role of government in further developing the State’s knowledge capacity is to analyse, coordinate, promote, remove barriers, and strategically invest to maintain the health of the system and allow it to grow. It also prides itself on being a leading edge user to better inform policy decisions and investments.

The NSW Government’s vision is that our State is recognised globally for its knowledge creation and innovation capabilities, that it competes with any jurisdiction in the world in research excellence and translation, and that it is the destination of choice for the world’s best researchers to live and work.

The Government is committed to supporting identified research in areas of priority for the State through leveraging Commonwealth funding for evidence based policies, facilitation, development of networks and consortia, and access to commercialisation programs.

Key messages for this priority

- The NSW Science Leveraging Fund is an important mechanism in attracting high quality research to the State and must continue to have active Government support
- Investigate ways to attract the best researchers from around the world through the use of funded chairs. For example, private companies and more NSW Government agencies and State-owned Corporations could follow the lead of instrumentalities such as Energy Australia in funding chairs within our universities
- Facilitate the building of international linkages for our top researchers with eminent scientists in Europe, Asia and the United States. This is important in continuing to develop our international expertise and standing and in allowing our researchers to participate in more virtual research concentrations with the best in the world in their fields
- Continue to nurture and develop the research skills base in NSW. There is a need for more researchers across more fields with researchers having more flexible and attractive career options, including the ability to switch between public and private sector research activity
- Research needs to be translated into practical benefits for the community, particularly in the field of medical research. Universities, the Government and the business community should work together more closely to better utilise the research assets of our universities in the formation of policy and corporate innovation

- Philanthropic activity for research is an area that could be coordinated by the NSW Government, with initiatives created to connect our best researchers with philanthropists in Australia and overseas

- Continue Government support for innovation within NSW businesses and assist those businesses in finding the right research partners to feed the innovation cycle

### Facilitating research and development (R&D) and innovation

<table>
<thead>
<tr>
<th>Key strategies</th>
<th>Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Support and encourage the building of larger concentrations of research excellence in NSW</td>
<td>Our research sector is equipped for excellence in areas of strategic significance to the State and produces high-impact research that makes material improvements to the community</td>
</tr>
<tr>
<td>Drive the translation of research discoveries, especially in areas that present major challenges to the State, including health and medical research, clean energy, climate change and community safety</td>
<td>Our research sector is focused on meeting the needs of the NSW community, environment and economy</td>
</tr>
<tr>
<td>Build our research skills base through: - attracting more of the best researchers from around the world; - increasing the number of local researchers and improving their research and development skills; and - providing more attractive career opportunities for new and established researchers</td>
<td>Increased Commonwealth, private sector and philanthropic co-investment in research and development and innovation in NSW</td>
</tr>
<tr>
<td>Increase the role of research in supporting the work of government agencies, non-government organisations, business and community groups in delivering solutions to social and environmental needs</td>
<td>NSW develops increased world-class research capabilities that foster innovation in product and service delivery</td>
</tr>
<tr>
<td>Enhance connectivity and collaboration nationally and internationally and facilitate a multi-disciplinary approach to complex research problems, including through maximising participation of end-users in the research effort</td>
<td>NSW researchers are better connected with each other and their international peers and are recognised and rewarded as collaborators of choice</td>
</tr>
<tr>
<td>Utilise e-research, information sciences and smart systems to provide researchers with e-infrastructure</td>
<td></td>
</tr>
<tr>
<td>Encourage more private and industry investment in research in NSW, including through philanthropic activity and maximising industry-university collaborative opportunities</td>
<td></td>
</tr>
<tr>
<td>Provide more opportunities to showcase NSW research, grow its profile and thus attract investment from grants programs here and overseas</td>
<td></td>
</tr>
</tbody>
</table>
Our goal is to attract more international students to NSW and enhance their experience of living and working here. We want to work with our tertiary providers to ensure the longer term sustainability of the international student market in NSW.

New South Wales is the top Australian destination for overseas students. Overseas students inject over $6 billion each year into the NSW economy, making education one of our biggest export industries. Our universities alone received $1.112 billion in fees from overseas students in 2009.

We want to ensure that international students are provided with a quality education and a safe and enjoyable experience living, working and studying in this country.

NSW attracts large numbers of students from all over the world, in particular the Asia-Pacific region

<table>
<thead>
<tr>
<th>Nationality</th>
<th>Percentage share of NSW total</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>29.7%</td>
</tr>
<tr>
<td>India</td>
<td>10.2%</td>
</tr>
<tr>
<td>Korea, Republic of (South)</td>
<td>7.0%</td>
</tr>
<tr>
<td>Thailand</td>
<td>6.4%</td>
</tr>
<tr>
<td>Nepal</td>
<td>6.3%</td>
</tr>
<tr>
<td>Viet Nam</td>
<td>3.7%</td>
</tr>
<tr>
<td>Indonesia</td>
<td>3.7%</td>
</tr>
<tr>
<td>Brazil</td>
<td>3.0%</td>
</tr>
<tr>
<td>Malaysia</td>
<td>1.9%</td>
</tr>
<tr>
<td>Saudi Arabia</td>
<td>1.8%</td>
</tr>
<tr>
<td>Other nationalities</td>
<td>26.4%</td>
</tr>
<tr>
<td><strong>NSW Total (n)</strong></td>
<td><strong>175,046</strong></td>
</tr>
</tbody>
</table>

*Source: AEI International Student Enrolment Data 2010: All Sector Year To Date Enrolments by Top 10 Nationalities by State/Territory for June 2010*
Premier’s Council on International Education (PCIE)

The NSW Government, through the Premier’s Council on International Education, works with international student representatives, the Commonwealth and education providers to ensure that overseas students receive high quality education and training in a safe and secure environment.

Throughout 2010 and beyond, the Premier’s Council on International Education will implement key NSW Government initiatives on international education developed in response to the NSW Ministerial Taskforce on International Education.*


NSW leads the other states and territories in income earned from education exports.

Source: AEI Research Snapshot: Export Income to Australia from Education Services in 2009.

Key messages for this priority

- Promote to the broader community the many benefits brought to our State through hosting and engaging international students
- Take a whole of State approach to providing information on tertiary education pathways and research opportunities, both metropolitan and regional, through State publications and websites
- Develop strategies to help tertiary providers provide more – and more affordable – accommodation for students who move away from home to study, including students from other countries along with better access to public transport
- Emphasise, in information targeted at international students, the different costs and benefits of studying at institutions located outside of Sydney and those located in Sydney
- Improve infrastructure, access to services and better articulation between the VET and higher education sectors for international students, and ensuring that courses for these students include a workplace learning or work experience component
- Encourage more domestic students to further engage with the world beyond Australia’s borders. Positioning the NSW tertiary education sector in a more international framework could provide many benefits to students, tertiary education providers and the community of NSW
- Further develop international links that encourage the exchange of research, knowledge, ideas and people on a global scale
- Better promote and market NSW tertiary education offshore
- Submissions also commented on the visa application process, and called on the Government to make representations to the Commonwealth to streamline requirements and ensure greater certainty of residential status and any necessary placements or internships
Attracting international students and enriching their Australian experience

Key strategies

- Promote NSW, both metropolitan and regional, as an attractive study destination
- Assist universities to provide more accommodation for international students in NSW by leveraging Commonwealth infrastructure funding and streamlining regulatory approval processes
- Provide detailed information about study and research opportunities, and living in NSW to prepare prospective overseas students, including through NSW Government publications and websites
- Build on existing NSW Police Force initiatives to increase awareness and improve safety for overseas students, such as Community Safety Precinct Committees
- Develop strategies with students, education providers, local Councils and the community that provide international students with better social support and engagement
- Work with NSW education providers to ensure they comply with state and federal legislative requirements for providing quality education and adequate support services for overseas students
- Work collaboratively with the Commonwealth on immigration, regulatory and other issues affecting international students in NSW

Outcomes

- NSW maintains and grows its market share of international students
- NSW enhances its international relationships and diplomatic ties through overseas students successfully completing tertiary education programs in the State
- NSW is rated highly in comparative reviews of international study destinations
- International students are more socially engaged with the NSW community
Consultation responses
(in alphabetical order)

- Australian Council for Private Education and Training (ACPET)
- Australian Industry Group
- Australian Nuclear Science and Technology Organisation (ANSTO)
- Associate Dean Teacher Education, Faculty of Education, Charles Sturt University
- Australian Catholic University
- Board of Vocational Education and Training (BVET)
- Charles Sturt University
- Chris Albertini Automotive
- Commonwealth Scientific and Industrial Research Organisation (CSIRO)
- Communities NSW
- Dubbo Chamber of Commerce and Industry Inc.
- ForestWorks NSW
- Global Tourism and Leisure Pty Ltd and Australian Tourism Export Council
- Industry and Investment NSW
- International Education Association of Australia Inc.
- National Tertiary Education Union (NSW division)
- Navitas Ltd
- Neuroscience Research Australia
- NICTA (National ICT Australia)
- North Coast Institute of TAFE Council
- NSW Business Chamber
- NSW Department of Education and Training – Aboriginal Education and Training Directorate
- NSW Department of Health
- NSW Department of Human Services
- NSW Department of Planning
- NSW Innovation Council
- NSW Transport and Logistics Industry Skills Council
- NSW Vice-Chancellors’ Committee
- Office of the Board of Studies NSW
- Office of the Deputy Director-General TAFE NSW and Community Education
- Planning Institute of Australia (NSW division)
- Regional Development Australia (Far West NSW Committee)
- Royal Society of NSW
- Service Skills NSW (Industry Training Advisory Body)
- Southern Cross University
- University of New England
- University of Sydney
- University of Western Sydney
- Whitehouse Institute of Design, Australia

Consultation sessions

A number of consultation sessions to discuss regional education, research and skills issues were also organised via teleconference.

These sessions were jointly hosted by Industry and Investment NSW, in particular the Office for Science and Medical Research, and the NSW Department of Education and Training, and were attended by a wide range of regional industry and tertiary sector representatives.

These sessions included:

- Broken Hill/Far West
- Central West
- Hunter/Central Coast
- Illawarra/South Coast
- North Coast
- South West
- Western Sydney
- New England
Next steps

The NSW Tertiary Education Plan will guide interactions between the NSW Government, industry and the tertiary education sector.

The strategies detailed in this document will be pursued by the NSW Government, through the NSW Department of Education and Training and Industry & Investment, NSW.

The New South Wales Vice-Chancellors’ Committee meeting with representatives of Government and business, the NSW Innovation Council, and the Business University Government Forum are appropriate forums where representatives of the tertiary education sector, industry and Government will discuss the strategies set out in the Plan and work together to deliver on these important outcomes.

The NSW Chief Scientist and Scientific Engineer will have oversight of the Tertiary Education Plan and will report on the achievement of outcomes to the Minister for Education and Training and the Minister for Science and Medical Research on an annual basis.