A Discussion Paper for a

NSW Tertiary Education Plan

NSW Government
June 2010
This discussion paper sets out the NSW Government’s broad strategic priorities as the basis for establishing a Tertiary Education Plan for New South Wales. The paper is intended to support a targeted consultation with key stakeholders in the sector. We invite your feedback and assistance in order to finalise the Plan.

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INTRODUCTION

The NSW State Plan acknowledges the important role that our higher education and vocational education and training sectors play in supporting the State. Through its Clever State initiatives in particular the State Plan is seeking to build a well educated, highly skilled workforce to drive economic growth, innovation, improved services and quality of life.

The NSW Government recognises the importance of ensuring a strong and diversified economy, noting the key role that this State has always had in driving the economic well being of the nation as a whole. New South Wales needs to maintain its economic strength over the longer term, through changing global economic circumstances and beyond the current emphasis on the resources sector.

Our skills and knowledge development, and investment in research and innovation should reflect both our short term needs and the importance of maintaining longer term economic growth. It will also underpin the ability of people to obtain and keep meaningful and rewarding employment with greater security.

Skills Australia\(^1\) estimates that within the next five years Australia may need as many as 2.4 million additional people in the workforce with qualifications at Certificate III and higher to meet projected industry demand, growing to an additional 5.2 million by 2025.

In this context, lifting participation and attainment in education and training is a key to ensuring ongoing economic success for New South Wales and rewarding lives for its citizens. To achieve this we need to:

- Provide quality education and training opportunities to further develop a highly skilled and educated population
- Increase the participation rates in vocational and higher education particularly for disadvantaged groups in our community as part of this effort
- Ensure that our tertiary provision is directed towards a productive and flexible workforce that is able to respond to changing economic conditions and technological developments
- Ensure that research and innovation is supported with the high level knowledge and skills required to develop and apply new ideas.

The NSW Government strongly supports the ambitious national targets and goals that have been set through the Council Of Australian Governments’ (COAG) and the Commonwealth’s response to the Bradley Review of Australian Higher Education to lift access and participation in senior schooling and in vocational and higher education.

We are committed to supporting our schools, vocational education providers and universities to meet these education attainment and participation targets.

\(^1\) Australian Workforce Futures: A National Workforce Development Strategy, March 2010
A new era of partnership and reform in tertiary education
The New South Wales Government is working closely with NSW universities to better align the priorities and needs of the State and the strategic directions and capabilities of our universities and TAFE Institutes.

The higher education sector in Australia has entered a new phase of growth and a renewed emphasis on research and innovation. This is aimed at increasing and widening participation, improving student engagement and attainment, strengthening research excellence, and ensuring the sustainability and international competitiveness of Australia’s higher education institutions.

The Government welcomes a greater emphasis in the national reform agenda on tertiary provision: the recognition that the resources of the vocational education and training and higher education sectors can be utilised more efficiently to increase the number of highly skilled graduates and to open up greater access to underrepresented groups. Importantly this highlights the key role that TAFE NSW plays in supporting skills development and providing training for disadvantaged groups in our community.

We are also encouraged by the Commonwealth’s renewed commitment to funding quality research and want to ensure that New South Wales is in a strong position to build on that commitment.

In the context of these developments the NSW Government wants to work in closer partnership with our tertiary sector to make certain that in implementing reforms our universities, TAFE NSW and other providers are able to build more effectively on their critical role in helping to drive economic, social and cultural development in this State.

A NSW TERTIARY EDUCATION PLAN

The purpose of a Tertiary Education Plan in broad terms is to bring together the economic and social priorities for the State with the strategic interests and capabilities of our higher education and vocational education and training sectors in a mutually beneficial partnership.

The discussion paper on the Tertiary Education Plan strongly aligns with the principles set out in the NSW Knowledge Statement, which sets a high level vision for knowledge, skills, research and innovation in NSW. The Knowledge Statement has been drafted with support and advice from the NSW Chief Scientist and Scientific Engineer. Consultations on the draft Statement will occur in parallel with consultations on the NSW Knowledge Statement.

This discussion paper takes the tertiary sector to include all of the teaching and learning, qualification levels and research activity of the higher education and vocational education and training sectors.

In terms of vocational education and training, this paper has a focus largely on connections with higher education through pathways and integrated provision – on ways in which the vocational and higher education sectors can work in closer collaboration to lift participation,
address skills and workforce needs, support regional development, and deliver high quality research and knowledge required for innovation.

We note that separately the Board of Vocational Education and Training is developing a Strategic Plan for Vocational Education and Training that sets out directions for the full range of vocational education and training in NSW.

THE TERTIARY SECTOR IN NSW

NSW has the oldest and most extensive higher education sector in Australia

Our universities are large organisations with a transformative role in individual lives and in society. They provide intellectual leadership, develop new knowledge and produce well-informed, critically engaged citizens. Our universities provide highly skilled graduates in a range of vocational and professional areas. The scholarship and research activities of our universities are central to driving innovation and the advancement of knowledge.

Tertiary education had its beginnings in NSW early in the 19th century with the establishment of the Sydney Mechanics’ School of Arts in 1833. This provided a library, lectures and educational opportunities for all citizens of Sydney.2

From the foundation of the University of Sydney in 1850, the first university established in Australia, the higher education sector has grown to 10 universities established under NSW legislation with more than 35 campuses across the State. These universities have also expanded beyond the borders of New South Wales, with campuses in the ACT and Qld, and in Singapore, Canada and Dubai. A number of public and private universities from other parts of Australia have also established campuses in Sydney in particular, taking advantage of the large numbers of domestic and international students seeking a higher degree in New South Wales.

The capacity of our universities is already considerable: they currently enrol about a third of Australia’s domestic higher education students. In 2008, the 10 universities established under NSW legislation accounted for 32.3 per cent of the domestic students enrolled at the 39 Australian universities (37 public and 2 private institutions) and 25 per cent of overseas students. In addition to universities, the NSW higher education system also includes a small but growing private provider sector (currently numbering 54 non self-accrediting higher education institutions). Of the NSW higher education institutions included in the higher education statistics published annually by the Commonwealth Department of Education, Employment and Workplace Relations (DEEWR), NSW universities and other higher education providers enrolled a total of 332,477 students (domestic and overseas) in higher education courses in 2008, accounting for 31 per cent of Australia’s total.

NSW universities play a critical role in educating our vocational and professional workforce

In 2008, NSW universities accounted for nearly 73,500 award course completions (domestic and overseas), representing a 30 per cent share of completions at the 39 Australian universities (public and private).

NSW universities also provide the largest number of completions for higher research degrees of any state or territory in Australia. In 2008, 1,801 students completed their Doctorates by research and 467 students completed their Master’s by research at NSW universities, respectively representing percentage shares of 31 per cent and 34 per cent of all Australian universities’ higher research degree completions.

Creating new pathways and models of tertiary provision
Meeting the knowledge and skills needs of the State into the future will require a change to the way the traditionally separate vocational education and training sectors have operated.

A more cohesive NSW Tertiary sector in which universities, TAFE NSW and other providers work seamlessly to deliver higher level qualifications in partnership with local industry will help drive and consolidate greater economic development across the State, especially in regional areas.

TAFE NSW will have key role in lifting participation
The geographical reach and capability of TAFE NSW provides the means, within a tertiary sector approach, to overcome capacity constraints in the higher education sector and support the longer term sustainability of regional tertiary and higher education provision.

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, giving TAFE NSW the broadest reach of any vocational and training provider in Australia. Alongside of TAFE NSW there are also around 1,060 registered Training Organisations in New South Wales providing skills qualifications.

In addition to providing these vocational qualifications, the VET sector, and TAFE NSW in particular, has the capacity to help increase the proportion of people in New South Wales holding a degree at bachelor level or higher. The sector provides a very substantial pool of potential candidates for higher education pathway programs. In collaboration with universities and industry, the VET sector can provide seamless pathways for students into further education and training.

TAFE NSW has applied to become a higher education provider to improve pathways and transitions within the tertiary sector and broaden the educational opportunities available to the people of New South Wales.

INTERNATIONAL EDUCATION

International education is a major export industry for the State
It is estimated that in 2007-08, income generated in New South Wales through expenditure by international students amounted to $6.4 billion, making education one of the State’s biggest industries.

The number of international students studying at NSW higher education institutions is significant and growing. In 2008, the NSW institutions included in the higher education
statistics published annually by the Commonwealth Department of Education, Employment and Workplace Relations (DEEWR), provided for 76,583 overseas students, of which 63,794 were onshore and 12,789 were offshore. The total number of overseas students at NSW higher education institutions grew by more than 6 per cent in 2008 compared to 2007.

In terms of VET enrolments reported through Australian Education International (AEI) data, there was a 20 per cent growth in enrolments of international students in New South Wales in 2009 compared to 2008. The 96,570 enrolments at NSW VET providers in 2009 represent a 41.5 percentage share of Australia’s total VET enrolments by international students.

The presence of this significant international student community studying in our tertiary sector brings important economic, social and cultural benefits to the State. In light of this, the Premier has established the Premier’s Council on International Education.

RESEARCH AND INNOVATION

The NSW State Plan recognises the importance of building on our credentials as a clever state. Our knowledge sector, led by some of the finest universities and research institutions in the world, is a critical component in driving innovation and creating the skills New South Wales needs for its future growth and prosperity.

Business and industry, working with our university and research sectors, are major contributors to, and utilisers of, the research effort in this State. They are critical both to the research effort and in providing mechanisms to translate research into practice in both the public and private spheres. The ability of our knowledge sector to address business and industry needs and engage with stakeholders in these areas is a key to connecting knowledge generating capacity with economic growth. That is why in developing our strategies we must engage with a third sector – business. Formal processes to drive and shape this engagement will occur through the NSW Innovation Council and the annual Business, University, Government Form.

OUR PRIORITIES FOR THE TERTIARY SECTOR

1. Developing a highly skilled workforce to support economic growth and innovation
2. Increasing participation and attainment in tertiary education to boost productivity
3. Attracting international students and enriching their Australian experience
4. Supporting tertiary education and research infrastructure initiatives and regional development
5. Facilitating research and development (R&D) and innovation
6. Working with the Commonwealth to ensure NSW priorities are addressed in the tertiary education reform process.
Further detail on each of these priorities is provided in the remainder of this paper. We invite feedback from the sector on ways in which they can be most effectively implemented.
1 Developing a highly skilled workforce to support economic growth and innovation

1.1 The NSW economy – Australia’s biggest state economy – is diverse and knowledge intensive. It needs a highly-skilled workforce and a strong research and innovation industry to secure its competitive advantage and long-term economic development.

One of the biggest challenges facing the state is ensuring that our citizens have the necessary skills base to maintain New South Wales’ strong economy and its position as a key driver of the national economy.

The new student demand driven enrolment model in higher education that will operate from 2012 creates an imperative to find the right mechanisms so that our skills and workforce needs are met.

The Commonwealth, our universities and employer groups all have a role in working with the State Government.

1.2 The NSW State Plan recognises the need to develop and maintain a highly educated and skilled workforce through engaging students for longer in education and training, improving access to jobs and training, and increasing access to knowledge and skills in partnership with universities.

The State Plan also recognises the critical connection between business and jobs identifying the need to increase business investment and support jobs and to drive innovation and grow productivity.

1.3 The Government wants to see better planning arrangements and stronger partnerships between the State and Commonwealth governments, universities, TAFE NSW, and business and industry to address workforce needs, and skills and knowledge requirements for the innovation sector.

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

We want the benefits that higher qualifications bring to individuals – higher income, less unemployment and more life choices – to be available to more of our citizens.

1.4 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.
Effective incentives, mechanisms and co-operative working arrangements between the State and Commonwealth will be needed to manage these supply issues in this new demand-driven context, particularly in rural and regional New South Wales.

1.5 Current priorities for workforce supply include:

Teacher education:
- NSW universities are delivering an oversupply of primary teachers. In early 2010 there were 15,000 primary trained teachers on the waiting list for appointment in NSW Government schools
- At the same time there is an undersupply of secondary teachers in the areas of mathematics and science

Health:
- NSW Health is seeking better consultative arrangements between Commonwealth and State jurisdictions on proposed increases and changes to student numbers in health courses
- There is also a need for better consultation and planning involving both the Commonwealth and the State where universities intend to change courses in key areas of workforce supply. Currently there is no effective provision for this
- New models for clinical placements are needed to improve access to clinical training
- We need to attract more health-sector workers into rural and regional areas
- We need to ensure that the allied health workforce needs across the State are adequately provided for through our tertiary education sector

Engineering and ICT
- Skill Shortages research undertaken by the Department of Education, Employment and Workplace Relations (DEEWR) has identified shortages/recruitment difficulties in New South Wales for ICT professionals, mining engineers, electronics engineers, electrical engineers and structural and transport engineers
- Professional bodies such as Engineers Australia, the Institute of Surveyors Australia (now the Surveying and Spatial Sciences Institute) and the Australian Computer Society have long called for concerted effort by educators, industry employers and governments to turn-around the shortages. Engineers Australia has previously estimated a shortfall of 20,000 professional engineers in Australia (against a total of approximately 150,000 engineers). The Australian Computer Society has estimated a shortfall of 11,000 ICT professionals nationally
- The shortage of engineers will become a bigger issue with the development of new industries for the low-carbon economy and initiatives such as the rollout of the national broadband network
- More generally there is a need to address the overall shortages of graduates with high-level maths skills, which is affecting many industry sectors, in particular engineering and ICT
Clean Energy and Green Skills

- Research skills are required to increase the knowledge base relating to issues such as the life cycle emissions of GHG abatement actions, or the measurement of GHG.
- Professional skills such as carbon accounting and legal or regulatory skills are required by firms mandated to record their emissions.
- Trade skills are required among service providers to business, as they advise on low carbon alternative products and practices across a range of sectors.
- Government skills are required to assess the economic and GHG claims of specific Low Carbon Innovation opportunities that are put forward for financial assistance or government support.

The Government is seeking your views on ways in which government, tertiary institutions and industry can work together to ensure that:

- workforce needs, both current and future, are being met through quality tertiary education that is flexible and targeted to the needs of the community and the economy.
- skills to support innovation are identified and addressed as a key priority for our tertiary system.
2 Increasing participation and attainment in tertiary education to boost productivity

2.1 The NSW Government wants to ensure that the people of New South Wales continue to be amongst the most highly educated and skilled in Australia; that the benefits of quality higher education provision are available to all citizens; and that our State is at the forefront of research and innovation that connects to and drives economic development.

2.2 The State’s future economic success and the social well being of its people depend on increased participation in tertiary education.

The Government wants to work in closer partnership with universities, other tertiary providers and the Commonwealth to increase participation and completion rates, in particular for students from low SES backgrounds, Indigenous students, and students from regional and remote areas.

2.3 Educational qualifications provide individuals with social and economic benefits: generally the higher the qualification the greater the benefit. (Figure 1)

Growth in attainment across the population also delivers significant social and economic benefits to the State as a whole and provides for a strong economic future for New South Wales.

The Bradley Review of Higher Education (2008) noted that “there is an international consensus that the reach, quality and performance of a nation’s higher education system will be key determinants of its economic and social progress ... Higher education will clearly be a major contributor to the development of a skilled workforce but, as never before, we must address the rights of all citizens to share in its benefits”.

COAG in its communiqué of 2 July 2009 stated that “It is essential that young people and workers in Australia strengthen their skills and that people who lose their jobs have access to opportunities to improve their skills to enable an early return into the workforce. Moreover, our future productivity and social cohesion will be enhanced by giving all Australian children the best start in life.”
2.4 The Government strongly supports the national targets and goals that have been set to lift participation, attainment and access in senior schooling, vocational and higher education.

By COAG:
- By 2015, 90 per cent of young people achieving Year 12 (or equivalent)
- Halving the gap for Indigenous students achieving Year 12 (or equivalent) by 2020
- Halving the population of 20 to 64 year olds without Certificate III (or higher) qualifications by 2020
- Doubling the number of higher qualification completions (Diploma and Advanced Diploma) by 2020.

By the Commonwealth, in response to the 2008 Bradley Review of Australian Higher Education:
- By 2020, 20 per cent of higher education enrolments at undergraduate level will be of people from low socioeconomic backgrounds
- By 2025, 40 per cent of all 25 to 34 years olds will hold a qualification at bachelor level or above.

2.5 The NSW State Plan, as part of its Clever State initiatives, is seeking by 2015 to have 90 per cent of 20 to 24 year olds with a Year 12 or Certificate II qualification and by 2020 90 per cent of 20 to 24 year olds with a Year 12 or Certificate III qualification.

The targets and goals that have been set nationally and reiterated in the NSW State Plan, point to the interdependence of schooling, vocational and higher education in delivering successfully on increased overall participation in education and training.

2.6 New South Wales has nationally competitive tertiary education participation rates. According to 2006 Census data, approximately a quarter of persons aged 15 to 24 years old in the State were attending a tertiary education institution in 2006. Of these, about 9 per cent were attending a technical or further education institution (including TAFE NSW) and 16 per cent were attending a university or higher education institution. At any given time around 9% of the working population of NSW is studying at TAFE NSW.
2.7 The proportion of persons aged 25 to 64 years in New South Wales who have attained a non-school qualification is higher than the national average. Australian Bureau of Statistics data indicates that in 2008, 63 per cent of persons of this age range in New South Wales held a non-school qualification, compared to 61 per cent of Australians.

The proportion of people in the state holding non-school qualifications at the level of advanced diploma or below was 35 per cent (compared to the national average of 34 per cent), while 27 per cent held qualifications at a bachelor degree or above (compared to 25.5 per cent nationally).

2.8 The NSW rates of attainment in higher education are good overall. Census data from 2006 indicates that people aged 25 to 34 in New South Wales have a slightly higher rate of attainment of bachelor or above degrees compared to the national average of 29 per cent. According to this data, the attainment rate of this cohort living within the Statistical District of Sydney, which is home to five of the biggest NSW universities, was 37 per cent.

Other regions of NSW, however, show a much lower rate of attainment.

2.9 In 2008, the proportion of low SES students in relation to all domestic undergraduate students at NSW higher education providers was approximately 16.7 per cent, slightly above the Australian average of 16 per cent but well below the Commonwealth’s target of 20 per cent by 2020.

NSW universities beyond the inner metropolitan regions of Sydney enrol relatively high proportions of low SES students, in part because of the greater number of low SES communities located outside of the metropolitan areas of New South Wales.

The NSW Government is seeking to engage with the sector on the most effective strategies to lift enrolment from low SES, Indigenous and rural and remote students through better school university partnerships and tertiary programs through TAFE NSW.

We support the Commonwealth policy that each university will be required to adopt national targets to increase low SES participation. In particular we want to see more students from disadvantaged backgrounds enrolling in professional degree programs.

2.10 The NSW TAFE system provides a very substantial pool of potential candidates for tertiary programs leading to higher education qualifications.

In 2009, the ten NSW TAFE institutes, which have more than 130 campuses and colleges across the State, enrolled almost 525,000 students in TAFE courses, making TAFE NSW the leading vocational and training provider in Australia with the broadest reach.
There were over 118,000 enrolments at TAFE NSW in Certificate IV and Diploma courses in 2009 - approximately 42,000 of these in regional New South Wales. More than 54,000 students enrol annually in Diploma level qualifications or above in TAFE NSW, approximately 40 per cent of whom are from low-socioeconomic backgrounds.

2.11 NSW performance in tertiary participation and attainment is strong, however there are significant advances to be made to reach the new participation targets.

We want to see better, more targeted partnerships and more efficient use of resources across NSW schools, TAFE NSW Institutes and universities. Partnerships need to focus on:

- Better connections between schools with high concentrations of low SES students and universities aimed at improving student attainment and aspiration. The Commonwealth and the State are investing $830m in the low SES school community National Partnerships over the next 5 years to improve retention and attainment. In NSW there are over 600 schools participating in this partnership, creating significant opportunities for partnership initiatives.

- Increased levels of participation in regional NSW and in particular providing better options for Indigenous and rural and remote young people.

- Partnerships between universities, particularly where regional and metropolitan universities provide jointly delivered degree programs.

- Better integration of TAFE NSW and university provision, in particular an increase in jointly developed and delivered tertiary programs. These programs bring together the resources and capabilities of TAFE NSW and universities to provide students with integrated tertiary programs leading to a higher education qualification.

2.12 Better structured and more widely available TAFE NSW / university partnerships will be a key mechanism to lift participation and completion of higher qualifications.

Current TAFE NSW and university partnerships can be classified under three broad models which the NSW Government is seeking to support and extend:

- Credit/ articulation — providing university entrants with credit in both points and time for the TAFE NSW qualifications they have completed

- Joint vocational education and training/ higher education delivery — programs are jointly developed by TAFE NSW and a university with integrated delivery providing successful students with both a TAFE NSW and a university qualification
- Franchised/auspiced arrangements — access to university qualifications is extended through the university franchising TAFE NSW to deliver part or all of a higher education qualification, such as a degree, on its behalf.

TAFE NSW is currently seeking approval as a higher education provider and, subject to approval, plans to begin delivering degree programs in 2011. This will consolidate TAFE NSW’s unique tertiary education mission and scope which covers educational provision from Year 10-equivalent qualifications, through to industry led delivery of national vocational qualifications, through to higher education.

The Government is seeking your views on strategies to increase tertiary education participation and attainment across the State, in particular strategies aimed at:

- Improving vocational education and training and university partnerships, articulation and transfer arrangements across the State
- Establishing effective partnerships between schools and universities, particularly schools serving low SES communities
- Improving retention, attainment and tertiary education participation of students from low SES communities
- Lifting participation and attainment in regional, remote and outer metropolitan regions of the state.
3 Attracting international students and enriching their Australian experience

3.1 The NSW Government recognises the very significant cultural and economic benefits that students from overseas bring to the State.

It is estimated that in 2007-08, overseas students injected $6.4 billion into the State’s economy, making education one of the State’s biggest export industries.

In 2007, NSW universities reported receiving more than $691 million in fees from overseas students. The number of international students studying at NSW universities is significant and growing: in 2008, NSW universities provided for more than 56,000 international students studying in New South Wales, a 9.3 per cent growth over 2007 numbers of onshore overseas students.

According to the most recent Australian Education International (AEI) data, New South Wales is the number one destination for international students, with 33.8 per cent of the total in higher education courses.\(^3\) Currently, there are more than 230,000 international students enrolled in education courses in New South Wales.

3.2 The NSW Government will work with international student representatives, the Commonwealth, business, universities, vocational education and training providers and schools to ensure that international students studying in New South Wales receive high quality education and training in a safe and secure environment.

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.

Our objective is to work with business, universities and the Commonwealth Government to continue to attract international students to New South Wales and to enhance their experience of living and working in Australia.

3.3 For these reasons, the NSW Government has established the Premier’s Council on International Education, which will address issues raised by international students through the provision of:

- A central area of responsibility within government to consider and respond to the needs of international students
- Specialist advice to the NSW Government in its dealings with the Commonwealth and other states and territories
- Opportunities to improve social activity and support for international students in their local communities

\(^3\) Australian Government - AEI, Detailed Monthly Tables December 2009.
In conjunction with these efforts, the Government, working with the Commonwealth, universities and business will be seeking to improve the safety, accommodation, provision of information and assistance with travel for international students in New South Wales.

The Government is seeking your views on strategies to attract international students to New South Wales, provide an enriching and engaging educational experience, and maximise interaction with the broader community. In particular, strategies to:

- Ensure that international students in NSW continue to receive a high quality education in a safe environment
- Improve social activity and support for international students in their local communities
- Assist regional universities seeking to attract more overseas students
- Improve assistance for international students in finding appropriate and safe accommodation
- Provide more targeted information to students in preparation for their study in New South Wales
4 Supporting education and research infrastructure initiatives and regional development

Education and Research Infrastructure

4.1 Universities are important producers of the knowledge, skills and innovation required to realise many of the objectives of the NSW State Plan. The Government recognises that universities have a range of ongoing infrastructure needs in teaching and learning provision, research and student amenities including student accommodation.

The Government is committed to streamlining regulatory and planning processes to enable universities to respond more immediately to academic and commercial infrastructure needs, and student accommodation needs. The government is also committed to working with all universities to ensure they are able to leverage available Commonwealth funding to meet their infrastructure requirements.

4.2 The Government has been a significant supporter of NSW bids for research and education infrastructure through Commonwealth programs including the Education Investment Fund. This support has assisted in developments such as National Life Sciences Hub (NALSH) at Charles Sturt University and University of Western Sydney’s Hawkesbury Forest Experiment.

4.3 The Government has established the Knowledge Fund with two main aims:

- to provide a mechanism to enable universities to more effectively utilise the value of land that they currently occupy
- to operate as a seed fund, enabling NSW institutions to leverage funding from the Commonwealth and other sources to support significant education and research initiatives

The Fund will assist large collaborative programs and capital developments that increase the State’s research and education capacity and workforce. The Government will continue to work with the sector to find the most effective ways in which to utilise the Fund for the benefit of universities.

4.4 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 has invested heavily in partnership with universities under programs such as National Collaborative Research Infrastructure Strategy, and Super Science.

This has helped support three nodes of the Australian National Fabrication Facility, headquarters of the Australian Proteome Analysis Facility and Australian Microscopy and Microanalysis Research Facility and several other capabilities. More recently the Government has embarked on a trial of the TechVouchers program that improves
access to university facilities by NSW small-to-medium enterprises. The evaluation of the trial will occur in 2010/11 and recommendations on the way forward will be made to the Minister for Science and Medical Research.

Regional Development

4.5 The NSW Government recognises that student accommodation is an increasingly critical issue for our universities and that more accommodation will be needed to ensure that our domestic and international participation aspirations can be met.

The NSW Government has recently approved redevelopments at Macquarie University, which will provide accommodation for an additional 3,450 students, and at the University of Technology Sydney city campus, which includes accommodation for an additional 720 students.

The Government will continue to assist and facilitate these kinds of developments by cutting through red tape and assisting universities to secure the finances necessary to expand or restructure student accommodation and through investigating the use of government owned land for this important purpose.

4.6 Universities are critical to the viability of regional economies as investors in regional development and as major employers in regional New South Wales.

The NSW Government is committed to support strategies that promote increased engagement between the higher education sector, business and industry, particularly with regard to regional planning and development, including through:

- encouraging links and partnerships between government-based research and university-based research in regional areas
- consideration of high growth sectors of the economy and their role in regional growth plans
- building on the links between education, research and economic development for regional communities

4.7 In recognition of the need to better support economic and workforce development in regional New South Wales, the Government will forge stronger linkages between TAFE Institutes, universities and research agencies. Key areas of focus include:

- better utilisation of co-located facilities
- jointly developed and delivered programs
- identification of regional workforce needs that can be supported through targeted tertiary provision

4.8 The NSW Government will continue to work with and support tertiary providers as partners in building healthy communities across the State. We recognise the importance of these university partnerships in supporting quality health provision in regional areas.
The NSW Government will work with universities to facilitate their increased connection with the communities in which they are located to ensure improved social, economic and community outcomes.

The Government is seeking your views on current and possible future strategies and mechanisms to support education and research infrastructure throughout the State, and to ensure that sustainable tertiary provision and research supports regional economic development. In particular the NSW Government is interested in more effective ways to:

- Establish partnerships between regional-based universities and government and industry research and development initiatives
- Make efficient use of existing infrastructure and resources in regional NSW to provide more pathway opportunities into higher education for regional students
- Maximise effective use of government and university land to enhance education and research outcomes through the Knowledge Fund policy, currently being developed through consultation with the state’s universities.
Facilitating research and development (R&D) and innovation

5.1 The NSW State Plan recognises the importance of New South Wales building on its credentials as a clever state. 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 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.

5.2 Growing the State’s research and development capabilities will enable and increase our productivity growth, particularly in the services sector. By mapping and the regular monitoring of our knowledge and innovation ecosystems the Government is in a position to make better informed policy decisions and investments.

5.3 Our knowledge ecosystem is made up of a complex network of businesses, universities, Commonwealth and independent research organisations, hospitals and government agencies. The unique 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 for those that fill gaps that are of the highest strategic value to the NSW community.

5.4 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.

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

5.5 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.
5.6 From a structural perspective the Government is concerned with developing:

- Excellence (attracting, supporting and promoting exceptional research)
- Concentration (encouraging the further development of specialised research hubs)
- International linkages (fostering greater participation in global research efforts)
- Impact (translation of research into products and services for the community)
- Workforce capacity (identifying the research skills required in the future)

5.7 In consultation with the business and university communities, the Government has identified a series of priority research areas which can be grouped into five main themes aligned to the State Plan:

- Healthy and Safe Communities (Aboriginal health, knowledge-led healthcare, agriculture and food production, crime prevention and community safety)
- Better Transport and Liveable Cities (public transport, green building design, smart electricity grids and more responsive and adaptive planning)
- Clever State (innovation in delivery of school education, information and communications technology)
- Green State (clean coal, renewable energy, energy efficiency, climate change adaptation)
- Better Government (open government, spatial information, financial systems management)

5.8 We support these priority areas through evidence based policies, facilitation, development of networks and consortia, access to commercialisation programs, close linkages with the Commonwealth and funding support through grants such as the Science Leveraging Fund and investments in low carbon and sustainability initiatives.

The Government is seeking your views on existing strategies and possible future actions to support research and development and drive innovation in New South Wales, in particular to:

- Attract and retain excellent researchers and research students
- Strengthen research linkages between universities, government agencies and state-owned corporations in priority research areas
- Promote NSW research capabilities to, and encourage greater collaboration between, universities and international and industry-based research institutions
- Develop complementary research concentrations between the State’s universities and national research bodies including the Commonwealth Scientific and Industrial Research Organisation (CSIRO), Australian Nuclear Science and Technology Organisation (ANSTO), and Defence Science and Technology Organisation (DSTO)
- Proactively support the development of Australian Research Council (ARC) Centres of Excellence and Cooperative Research Centres (CRCs) in identified priority research areas.
6 Working with the Commonwealth to ensure NSW priorities are addressed in tertiary education reform

6.1 The NSW Government is committed to working in close collaboration with the Commonwealth Government to drive the higher education reform agenda.

The NSW Government welcomes the increased levels of Commonwealth higher education funding provided for in the 2009 Federal Budget: $36 billion in university learning and teaching and more than $9.6 billion in research over four years, which will increase higher education spending from 0.82 per cent of the GDP in 2007-08 to 1 per cent in 2010-11.

6.2 While the Federal Government has principal responsibility for funding universities, the NSW Government also provides funding and resources to support NSW universities. It has always done so across the range of government agencies, with direct and indirect contributions for a wide variety of purposes. Much of the NSW Government’s contribution to the university sector has gone unnoticed, however, and is not captured in annual statistics.

This is a point made in the support document for a 2005 Commonwealth discussion paper Building Better Foundations, which states that: “[i]n general, the States’ contributions have been in-kind, for example through land grants, while the Commonwealth’s contributions have been financial, through direct capital funding. As a result the full contribution of the States to higher education finances is not captured in annual revenue statistics.”

6.3 Despite this, it is estimated that State government support to NSW universities, across all agencies, is approximately $400 million per annum through direct and indirect funding and support for graduate training.

6.4 The NSW Government values the introduction of funding compacts for universities as a way of allowing for better differentiation amongst higher education institutions in their strategic directions and the range and depth of their teaching, learning and research capabilities.

We welcome the Commonwealth’s willingness to take account of the State’s priorities and strategic needs in the compact development process.

Compacts provide an opportunity to bring about a closer alignment of the strategic interests of the State, university capabilities and Commonwealth policy directions for the higher education sector. NSW would like to engage closely with the

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Commonwealth to ensure that this kind of alignment can be achieved through the compacts process.

6.5 It is important that NSW priorities and initiatives are directed and monitored through timely access to accurate data.

The NSW Government will strive to ensure that data relevant to the tertiary education sector is more accessible and transparent.

We will investigate strategies aimed at a better alignment of data relating to workforce needs, educational attainment and participation rates and population growth across the State.

The NSW Government will also work with the Commonwealth to:
- build a better view of the State’s higher education participation rates for all students and for under-represented groups (including low SES, Indigenous, regional and remote students)
- create a consistent policy framework across the tertiary sector

The Government is seeking your views on effective state based mechanisms to ensure that the sector’s views and industry needs are taken into account as we work with the Commonwealth on tertiary sector reform
Process for providing feedback on this discussion paper

The NSW Government is seeking written feedback from the sector on this discussion paper.

The Government is interested in your views on the proposals and actions outlined under each of the six matters identified as NSW State priorities.

Written comments should be provided by COB Friday 9 July 2010 to:

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