

1 November 2013

Mr Stephane Kerr
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Dear Stephane,

Campus Improvement Program - Economic Benefits

As requested Urbis is pleased to provide an overview of the economic benefits associated with the University of Sydney's Campus Improvement Program (CIP) 2014-2020.

1 Background - Campus Improvement Program (CIP)

The University of Sydney makes a significant contribution to the New South Wales and Australian economies. This economic contribution is set to grow upon redevelopment of the University in accordance with the Campus Improvement Program.

The CIP applies to the University's Camperdown and Darlington campus and provides a seven year program for the delivery of new building, access, public domain and infrastructure works to support the strategic direction of the University and the delivery of its programs. It is a development program informed by a range of strategies that aim to position Sydney University as the leading teaching, learning and research institution in Australia.

The combined works program of the current and transformational projects represents a capital expenditure of \$1 billion. It is anticipated that the CIP will represent capital expenditure in the order of **\$1.2 billion**. Together, this totals a current injection into the NSW economy of **more than \$2.5 billion in construction and related activities**.

The CIP provides a framework for the planning and implementation for new capital investment into the campus and in so doing will ensure that it will deliver efficiencies through co-location and is respectful to the significance of the established environment.

The CIP envisages the relocation of three satellite campuses onto the Camperdown-Darlington campus including the Faculty of Nursing and Midwifery from Mallet Street Camperdown, the Sydney College of the Arts from Callan Park Rozelle, and Faculty of Health Science from Cumberland campus. The relocation of these faculties will drive the next generation of collaborative precincts at the Camperdown Darlington campus. It also makes provision for a significant uplift in student accommodation on the campus – around 4,000 additional beds.

An overall increase in campus student and staff numbers is envisaged from 43,300 students and 6,200 staff in 2013 to approximately 53,500 students and 6,550 staff in 2020, consistent with the University's current growth rate and the residual student population transfer from satellite campuses of Mallett Street, Cumberland, Sydney College of the Arts (SCA) and Australian Technology Park (ATP).

The CIP is in effect an ‘enabling strategy’ ensuring that the quality of the University’s research and education facilities, as well as the University’s reputation and performance, continues to adapt to pedagogical, technological and cultural change and therefore positions Sydney University on the world stage of higher education.

2 Key Economic Benefits

The key economic benefits – jobs, output and incomes and jobs – that will be facilitated as a result of the CIP are summarised below and include:

- Sustaining around 12,500 direct and indirect jobs during the construction period of the CIP.
- Around 400 additional jobs at the Camperdown Darlington campus linked to the CIP improvements, growth in student numbers and relocation of faculties from other locations.
- Income generation in the order of \$523m linked to construction and \$95m linked to additional UoS staff on campus
- Around \$2.5bn of additional output (production and consumption induced effects) resulting from CIP construction activity
- Increased spending in the order of \$374m over the period 2014-2020 linked to the ability to grow the international student market at Camperdown Darlington.

Summary of Economic Benefits University of Sydney Campus Improvement Program 2014-2020

Benefits from University Expenditure

Construction Period (2014-2020)

Jobs	12,586
Output (\$m)	2,583
Income (\$m)	523

Operating Period (2014-2020)

Jobs	407
Income (\$m)	95
International Student Spending (\$m)	374

Notes:

Values are in NPV terms at a 7% discount rate.

Benefits relate to the period 2014-2020, however economic benefits will continue to be realised over the longer term.

Jobs relate to one year of full time equivalent (FTE) employment.

Output and income benefits are not additive, but rather, they are two alternative ways of assessing economic impacts.

The operating period benefits that are presented in the table and discussed in the advice relate to the period 2014 to 2020. However, note that benefits will continue to be incurred beyond this time period as the University remains operational (20 years is the standard asset useful life that is adopted when undertaking such assessments). The reason for adopting the 2014 to 2020 period is that it is the implementation period for the CIP and thus provides working forecasts in regard to investment and growth. Without these forecasts we can not quantify economic benefits. Thus, the operating period benefits presented in the table are somewhat understated.

Despite the conservative approach taken to quantifying the economic impacts of the CIP, it is evident that it would drive significant activity in the NSW and Australian economies.

3 Economic Benefit Assessment

The University of Sydney makes a significant contribution to the NSW and Australia economy, and this contribution will be enhanced through the implementation of the CIP. Economic benefits associated with the CIP would largely accrue as a result of two drivers:

- Operating expenditure by UoS; and
- Increased international student expenditure

In addition, the potential re-use and redevelopment of satellite campuses may provide locally targeted economic benefits in these locations.

The economic benefits that these factors bring will be in the form of jobs, incomes and output are defined as follows:

- Output: the market value of goods and services produced, or in other words, contribution to GDP and GSP
- Jobs: paid full time employment for a one year period
- Income: gross income earned by people taking up new jobs

These economic benefits are assessed below. Additional non-quantifiable benefits are assessed thereafter.

3.1 ECONOMIC BENEFITS OF UNIVERSITY EXPENDITURE

Economic benefits that arise from UoS expenditure would occur in two phases:

- The construction phase – temporary direct and indirect jobs, output and income that will be created during refurbishment and construction.
- The operational phase – recurring jobs, output and income that would result from the operation of the University campus in its improved format.

3.1.1 JOBS

CONSTRUCTION PHASE

Construction works that are planned under the CIP will result in new construction industry jobs. The income earned and expenditure made by the additional construction industry workers will generate jobs in other industries. In total, the CIP works would generate activity that would create around 12,600 FTE jobs over a seven year period.

Job Creation Impact of Campus Improvement Program - Construction Phase

	2014	2015	2016	2017	2018	2019	2020	Total
Capital Investment (\$m) ¹	171	171	171	171	171	171	171	1200
Direct Employment ²	699	699	699	699	699	699	699	4,890
Indirect Employment ³	1,099	1,099	1,099	1,099	1,099	1,099	1,099	7,696
Total New Jobs	1,798	1,798	1,798	1,798	1,798	1,798	1,798	12,586

Source: ABS; Urbis \$2013

Note: Jobs are for the equivalent of one year of full-time equivalent (FTE) employment.

Assumes equal per annum split of expenditure. Annual expenditure will vary across the period

1. Equivalent to the capital costs of the CIP 2014-2020

2. Additional construction jobs created as a result of implementation of the CIP

3. Indicates the estimated number of jobs created in other industries during the construction phase of the project

OPERATING PHASE

The implementation of the CIP will enable the University to achieve its overall student growth forecasts of around 2% per annum between 2014-2018. The development of new buildings and the transfer of certain faculties from satellite locations to Camperdown Darlington will enhance the existing student and staff campus population. By 2020 it is estimated that there will be an additional **9,100** enrolled students using the Camperdown Darlington Campus, supported by an additional **407** staff. The growth in staff employment is based on the assumption that there will be future efficiency gains in the balance of students per staff member.

It is estimated that the addition of 407 University staff at the campus will support an additional **336** indirect permanent full time jobs in support industries.

Student Growth and Job Creation Impact of UoS CIP 2014-2020 - Operating Phase

	2013	2014	2015	2016	2017	2018	2019	2020	Growth 2014-2020
Students	43,300	44,400	45,700	47,100	50,900	51,500	52,500	53,500	9,100
Jobs on Campus	6,200	6,203	6,270	6,338	6,405	6,473	6,540	6,610	407
Indirect employment		5,117	5,173	5,229	5,284	5,340	5,396	5,453	336
Students per staff (all staff) ¹	7.0	7.2	7.3	7.4	7.9	8.0	8.0	8.1	

Source: UoS, Urbis

Note: Jobs are for the equivalent of one year of full-time equivalent (FTE) employment.

1. Assumes efficiencies in student / staff mix over time

2. Indicates the estimated number of jobs created in other industries upon implementation of the CIP, as a result of new jobs at UoS.

3.1.2 INCOMES

CONSTRUCTION PHASE

The new direct and indirect jobs created during construction and refurbishment would result in an estimated **\$523 million** (in NPV terms at a 7% discount rate) in additional incomes over the construction period from 2014 to 2020.

Income Increase Resulting from the CIP - Construction Phase

	2014	2015	2016	2017	2018	2019	2020	Total
Direct Incomes (\$m) ¹	37.7	37.7	37.7	37.7	37.7	37.7	37.7	264.0
Indirect Incomes (\$m) ²	59.4	59.4	59.4	59.4	59.4	59.4	59.4	415.5
Total Income Increase (\$m)	97.1	97.1	97.1	97.1	97.1	97.1	97.1	679.5
Discount Rate	4%		7%		10%			
NPV of Income Increase	\$582.7		\$523.2		\$472.6			

Source: ABS, Urbis, UoS

1. Income earned by construction industry workers

2. Income earned by workers from all other industries apart from construction.

OPERATING PHASE

The jobs created at the University, and the indirect jobs created outside of the University will result in an additional **\$94.8million** (in NPV terms at a 7% discount rate) in incomes over the period 2014-2020.

Income Increase Resulting from the UoS CIP Operating Phase

	2014	2015	2016	2017	2018	2019	2020	Total
Direct Incomes (\$m) ¹	0.2	3.6	7.1	10.6	14.1	17.6	21.1	74.4
Indirect Incomes (\$m)	0.1	3.0	5.8	8.7	11.5	14.4	17.2	60.7
Total Income Increase (\$m)	0.3	6.6	13.0	19.3	25.7	32.0	38.3	135.1
Discount Rate	4%		7%		10%			
NPV of Income Increase	\$109.9		\$94.8		\$82.3			

Source: ABS, Urbis, UoS

1. Initial income increase assumes new jobs will be broken down as follows:

Senior Management (2%); Teaching (44%); Support / Administration (54%)

3.1.3 OUTPUT - CONSTRUCTION

An alternative way of gauging the economic impact of the CIP construction is in terms of output. The initial output increase is equivalent to the capital costs of the CIP. The increase in construction industry output will drive output increases in other industries.

These supplementary effects will be captured by an output multiplier which represents the economic impact of an increase in production in one industry on all others. The total economic benefit resulting from one transaction is comprised of a variety of multipliers which can be explained as follows:

- Initial Effect: Initial requirement for an extra dollar's worth of output of a given industry. This is the value of total investment for a given project.
- Production induced effects: This is a combination of:
 - The first round effect: The amount of output needed by all industries to meet the demands of the initial investment.
 - Industrial support effect: The extra output from all industries to support the production of the first round effect.

- Consumption induced effects: The above effects will create increased spending by the wage and salary earners across all industries, thus increasing output in all industries.

After accounting for flow-on effects it is estimated that the CIP will result in **\$2.5 billion** (in NPV terms at a 7% discount rate) of additional output, throughout the period of construction.

Output Increase Resulting from the CIP - Construction Phase

	2014	2015	2016	2017	2018	2019	2020	Total
Initial Effects (\$m) ¹	171	171	171	171	171	171	171	1,200
Production Induced Effects	151.0	151.0	151.0	151.0	151.0	151.0	151.0	1,057.2
Consumption Induced Effects (\$m)	156.9	156.9	156.9	156.9	156.9	156.9	156.9	1,098.0
Total Output Increase (\$m)	479.3	479.3	479.3	479.3	479.3	479.3	479.3	3,355.2
Discount Rate	4%		7%		10%			
NPV of Output Increase \$m	\$2,877		\$2,583		\$2,334			

Source: ABS, Urbis, UoS

1. Initial output increase is equivalent to the capital costs of the Masterplan.

3.2 ECONOMIC IMPACTS OF INTERNATIONAL STUDENTS

The CIP is expected to facilitate a larger population of international students. This increase will in part be due to an increase in the provision of student accommodation, and in part due to the fact that the campus improvements will be more attractive to internationals.

The international student population estimates presented in the table below have been prepared by Urbis. They are provided on the basis that:

- The current proportion of international students enrolled at University of Sydney is around 23% and is forecast to increase to 26% by 2018 (Source: University of Sydney)

International Student Population Forecast (2014-2020) Camperdown Darlington

	2014	2015	2016	2017	2018	2019	2020
No. of Students	10,647	11,383	12,170	13,011	13,910	13,910	13,910
Growth on 2013 (No.)	688	1,424	2,211	3,052	3,951	3,951	3,951
Growth on 2013 (%)	7%	14%	22%	31%	40%	40%	40%

Source: UoS, Urbis

Spending by the additional international students will result in a net economic benefit to the state and national economies, as this represents expenditure that would otherwise not have been captured. In contrast, an increase in expenditure that will be achieved as a result of an increase in domestic students is not considered to have a net economic benefit as domestic students' expenditure is not dependent on them attending University of Sydney. That is, it assumed that they will spend the money anyway. Domestic student expenditure captured by the University is therefore considered as a transfer of benefits.

Based on data produced for Universities Australia on retail and services expenditure by university students, we estimate that annual gains in international student expenditure will increase to over **\$106 million** per annum 2020. From 2014 to 2020 the additional international students will spend an estimated total of **\$374 million** (in NPV terms at a 7% discount rate). This is the amount of expenditure

that would be captured by the additional international students using the Camperdown Darlington campus, it does not represent expenditure that is currently captured under the current campus format.

International Student Expenditure Gains (2014-2020)								
	2013	2014	2015	2016	2017	2018	2019	2020
No. of Students	9,959	10,647	11,383	12,170	13,011	13,910	13,910	13,910
Additional International Students (Rent \$m)	0	688	1,424	2,211	3,052	3,951	3,951	3,951
Other goods and services (\$m)		12	25	39	54	70	70	70
Total	0	18	38	59	82	106	106	106
				4%	7%	10%		
NPV of Expenditure Gains (\$m)				\$428	\$374	\$329		

Source: UoS, Universities Australia, Urbis

Includes expenditure on food, clothing, entertainment, transport, travel, telephone and incidental costs.

Excludes , bills and utilities

3.3 ADDITIONAL STUDENT ACCOMMODATION PROVISION

The CIP will deliver an additional 4,000 student beds on campus which will be available to international and domestic students. This will alleviate pressure on the private rental market, aiding in controlling rents. It is important that rents be maintained at a reasonably affordable level in order to maintain the attractiveness of University of Sydney and Sydney generally to international students who bring significant economic benefits.

3.4 COMMUNITY ACCESS TO FACILITIES

A key objective of the CIP is to open up the campus to surrounding residents and make it a more welcoming environment. One mechanism for achieving this objective is to provide the community with access to retail, arts, cultural, entertainment and sporting facilities. Community benefits that can accrue as a result of utilisation of these facilities include:

- Development of cognitive skills and educational attainment
- Community pride, identity and cohesion
- Crime prevention
- Self-esteem and life skills
- Enhanced property values

3.5 ENHANCEMENT OF AUSTRALIA'S REPUTATION OF DELIVERING WORLD CLASS EDUCATION PROGRAMS

Internationally, Australia has established a reputation of providing world class education programs. As a result, the number of internationals studying in Australia has been growing.

Australia's **\$14.5** billion a-year international education industry is the nation's fourth largest export industry and largest non-resources export (Source Universities Australia, 2013).

The CIP will assist with continuing to build the profile of education institutions in Sydney and Australia more broadly at the global level, exemplifying the leading edge programs and resources which international students can gain access to. The exposure gained as a result of the University of Sydney redevelopment will cement Australia and NSW's position in the increasingly competitive global education market, and this will bring significant benefit to the NSW and Australian economies over the short and long term.

3.6 AESTHETIC ENHANCEMENT

Development of new architecturally designed buildings and refurbishment of existing buildings under the CIP will improve the aesthetic quality of the University precinct. The new development sites and major renovations will have a significant impact on the surrounding streetscapes. This will aid in building the overall appeal of the broader Camperdown Darlington precinct.

Yours sincerely,



David Wilcox
Associate Director