



Annual Report 2012

The University of New South Wales

Never Stand Still





Our graduates are in demand from employers, with the highest employment rate of any Group of Eight university. They're also in the top 5% for median starting salaries.

The Australian Graduate Survey 2012

UNSW is Australia's leading research-intensive university focused on science, technology and the professions. We are committed to preparing the next generation of talented global citizens.

***UNSW.
Never Stand Still.***

**UNSW Annual Report 2012
Volume 1**

- 02 Message from the Chancellor & Vice-Chancellor
- 04 At a Glance
- 06 Snapshot
- 08 Year in Review
- 10 Governance
- 12 Research
- 16 Student Experience
- 20 Community Engagement
- 24 Capabilities & Resources

The University's 2012 Financial & Statutory reports are in Volume 2.

Inside front cover: UNSW arts student Olivia Smith



To meet future challenges, we would like to see the regulatory burden on the sector eased, new thinking on how best to resource our universities, and the development of a long-term national research strategy.

Message from the Chancellor & Vice-Chancellor



Mr David Gonski AC
Chancellor

We are pleased to report that UNSW had an outstanding year in 2012, despite a volatile and sometimes difficult environment for the higher education sector, and we continued to live up to our reputation as one of Australia's most innovative and highly sought after universities.

We had a number of causes for celebration, not least the State Government's announcement that construction will begin on a light rail link to Randwick. As UNSW is the only university in Sydney without rail access, this has huge significance for our future development.

The year saw the quality of our research recognised across a number of different benchmarks. We were ranked well above world standard in 97% of our research outputs across all disciplines in the *Excellence in Research for Australia* (ERA) report. Globally, we ranked 85 in the Times Higher Education Rankings and 52 in the QS World University Rankings. Many of our researchers received national and international awards.

With technology revolutionising teaching and learning, UNSW became the first Australian university to offer free online computing courses to the global community. We also began rolling out web-based adaptive tutorials to enhance the student experience in biomedicine, science and engineering.

High-quality teaching, our global focus and strong links with industry meant we remained the university of choice for many potential students. Our median ATAR was the highest of any university in NSW, and we attracted the highest number of the state's top 500 HSC students for study in 2013. UNSW received the maximum five-star rating for eight key performance indicators in the 2013 Australian *Good Universities Guide*, with our graduates in the top 5% in the country in terms of their starting salaries.

UNSW continues to boast one of the most diverse student populations in the country, welcoming students from 125 countries. 2012 was a turbulent year for the international education sector, with visa reforms not yet fully implemented, the continuing high dollar and increasing competition from destinations such as the US. Despite these challenges our international undergraduate numbers have been generally holding firm with enrolments looking even better for 2013, as is the case for postgraduate programs.

A number of innovative equity and preparation programs improved access for students who are educationally disadvantaged or would not otherwise have thought of attending university. There was a 26% increase in Indigenous student enrolments, bringing us well on the way to achieving our goal of 500 Indigenous students by 2015. As a key part of this strategy the Nura Gili Indigenous Unit gained a new centre in 2012, thanks to the generous financial support of the Balnaves Foundation.

With a focus on advancing global education at UNSW, we entered into several strategic agreements with international institutions, providing our students with more opportunities to gain international experience. This strategy dovetails with the aims of the recent government White Paper 'Australia in the Asian Century', which encourages universities to establish exchange arrangements with major Asian universities.

We were ranked well above world standard in 97% of our research outputs across all disciplines in the Excellence in Research for Australia report.



Professor Frederick Hilmer AO
President and Vice-Chancellor

Our capital works program continues to transform our campus. The \$125 million Tyree Energy Technology Building was formally opened, while the \$58 million redevelopment of COFA's Paddington Campus was on track for completion in early 2013. Meanwhile a major re-development of our residential colleges was underway, further expanding affordable, high-quality student accommodation on campus.

The year saw some changes to senior management. We farewelled Deputy Vice-Chancellor (Academic) Professor Richard Henry, who retired after a distinguished career in medicine and academic leadership. He was replaced by Professor Iain Martin, who came to us from the University of Auckland. Ms Jennie Lang, previously our Pro Vice-Chancellor (International), joined the Executive Team as Vice-President, Advancement.

On the financial front, the University achieved sound financial results in 2012 with a group operating result of \$14 million. We secured \$19 million in fundraising income and we would like to extend our sincere thanks to our Australian and international donors, many of whom are UNSW alumni.

An event that rates a special mention in this report is our gala dinner to mark 60 years of international education, held in November. As one of the first Australian universities to welcome scholarship students under the Colombo Plan, we had particular cause to celebrate and were pleased to be able to welcome back to campus a number of our original Colombo students.

Looking forward, Australian universities will continue to be challenged by the advent of new technologies and increased competition from first-rate Asian universities. To meet these future challenges, we would like to see the regulatory burden on the sector eased, new thinking on how best to resource our universities, and the development of a long-term national research strategy.

2012 has been an excellent year for UNSW. We congratulate our staff and students for their outstanding achievements and take this opportunity to thank them all. We also thank our alumni and other partners for their support.

Report of the Council of The University of New South Wales

For the period 1 January 2012 to 31 December 2012

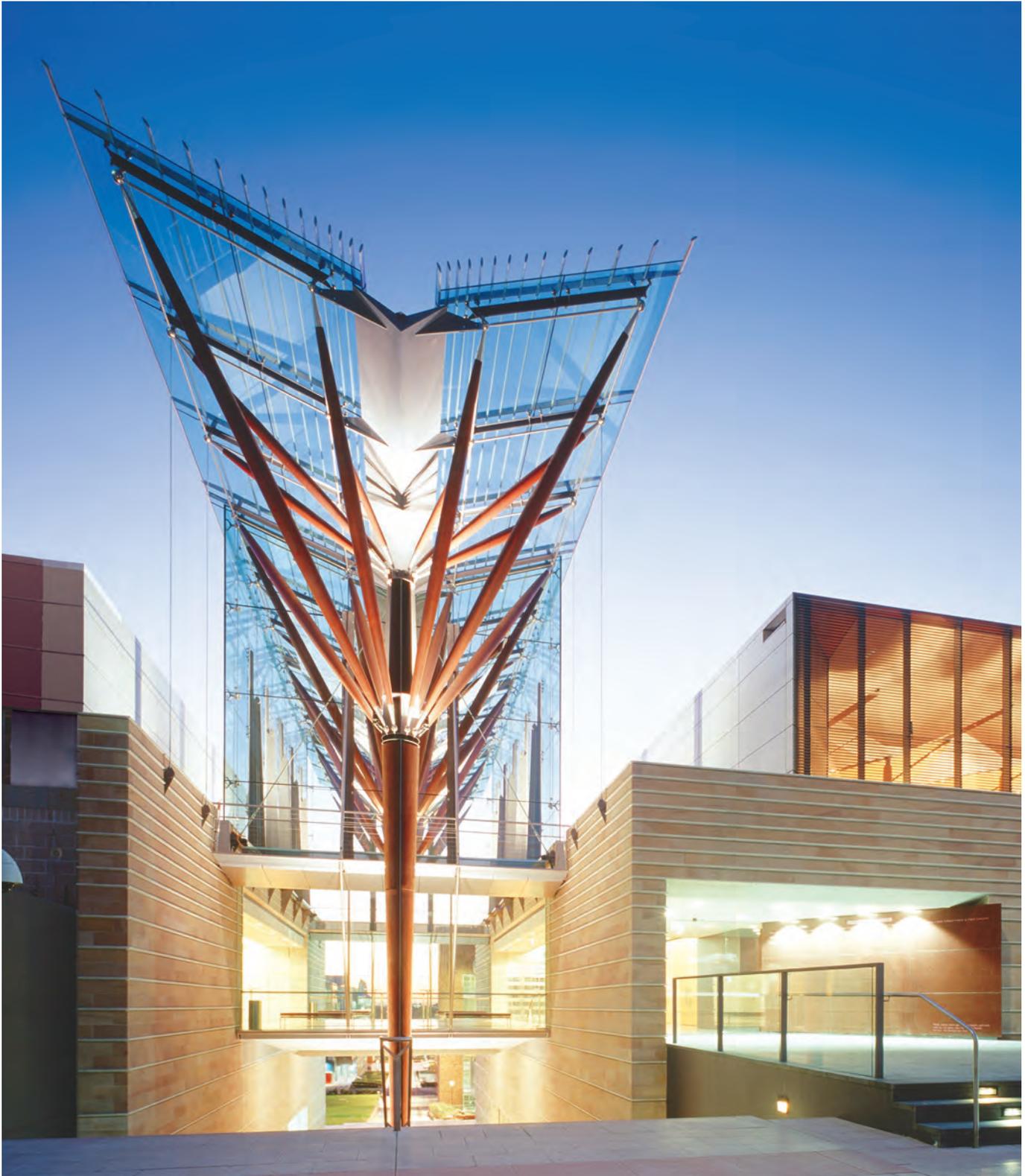
In pursuance of the *Annual Reports (Statutory Bodies) Act 1984 (NSW)*, the Council of the University of New South Wales presents to the Honourable Adrian Piccoli MP, Minister for Education, the following report of the proceedings of the University for the year ended 31 December 2012.

Mr David Gonski AC
Chancellor

Professor Frederick Hilmer AO
President and Vice-Chancellor

Thanks to our high-achieving staff and students, innovative teaching, and real-world research with industry support, we are ranked in the world's top 100 universities.

At a Glance



UNSW has an international focus and believes that it is important to be open to the world through education and research.

2012 Good Universities Guide



About UNSW

Established in 1949 with a unique focus on the scientific, technological and professional disciplines, UNSW has a proud tradition of sustained innovation, focusing on areas critical to our future – from climate change and renewable energies to life-saving medical treatments and breakthrough technologies.

UNSW has eight faculties and one University College offering an extensive range of undergraduate, postgraduate and research programs.

We attract talented students from across Australia and around the world. Our 50,000-plus students come from 125 countries, making us one of Australia's most cosmopolitan universities. Our emphasis on quality continues to push up entry standards – in 2012 we saw record demand from the state's top school leavers.

The main UNSW campus is located on a 38-hectare site at Kensington, seven kilometres from the centre of Sydney. Other major campuses are the College of Fine Arts in Paddington and UNSW Canberra at the Australian Defence Force Academy.

Our Mission

Strategy

B2B Blueprint to Beyond, the UNSW Strategic Intent, reflects the University's fundamental mission of education, research and community engagement. It underpins our Faculty and Divisional plans, and its guiding principles and objectives inform our policies, processes and procedures.

Aspiration

Our aspiration is to continually improve our position as a leading research-intensive university in the Asia-Pacific region, focusing on contemporary and social issues through defined strengths in professional, scientific and technological fields. We seek to make

a significant contribution to the development of knowledge, to learning and teaching, to our students, and to society.

Objectives

- > Continue to build on our position as a peer of the best globally in research performance, concentrating on defined strengths.
- > Develop globally focused graduates who are rigorous scholars, capable of leadership and professional practices in an international community.
- > Be a valued partner with key communities, making an impact on contemporary issues.
- > Improve underlying leadership and operational capabilities.
- > Maximise the availability of resources and the assignment of resources to priority areas.

Guiding principles

In pursuing our aspiration, and in the way in which UNSW is led and managed, we value and embed:

- > Academic freedom
- > Leadership
- > Innovation, initiative and creativity
- > Recognition of merit and excellence
- > Integrity and high ethical standards
- > Equity, opportunity and diversity
- > Mutual respect, collegiality, teamwork and high service standards
- > Professionalism, accountability and transparency
- > Safety
- > Environmental sustainability.

Snapshot Key Statistics 2012

244,861

Alumni

52,614

Student
Enrolments

37,250

Student Load
(EFTSU)*

13,701

International
Students

19,457

Commencing
Enrolments

5,654

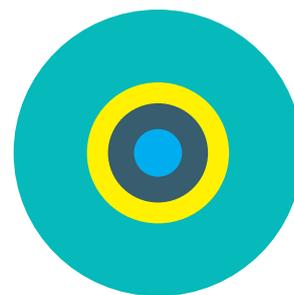
Total Staff
(FTE)

*EFTSU figures are for
UNSW not the Group



Students by Program

■	3,377	Doctorate
■	630	Masters research
■	11,627	Masters coursework
■	3,081	Grad Dip & Grad Cert
■	32,380	Bachelor & Diploma
■	1,519	Cross institution & Non-Award



Enrolments by Campus

■	44,238	Kensington
■	3,736	COFA
■	3,234	UNSW Canberra
■	1,406	Other

2012 Financial Summary

	Consolidated		University	
	2012 \$'000	2011 \$'000	2012 \$'000	2011 \$'000
Total revenue and income	1,095,045	1,044,433	1,031,218	980,997
Employee costs	(632,259)	(619,195)	(592,176)	(580,083)
Other expenses	(449,144)	(429,239)	(415,056)	(393,434)
Operating result	13,642	(4,001)	23,986	7,480
Restricted surplus	30,996	32,999	30,548	28,616
Investment earnings	27,293	34,518	27,293	34,518
Income for capital projects	24,783	47,502	24,783	47,502
Asset Transfer ¹	-	-	-	67,835
Loss on deconsolidation ²	-	(6,941)	-	-
Forgiveness of loan ³	-	-	(5,815)	-
Gain on sale of assets ⁴	2,984	-	2,984	-
Impairment of assets ⁵	(11,079)	(15,191)	(9,993)	(17,602)
Revaluation of ATPi ⁶	4,167	-	-	-
Accounting result	92,786	88,886	93,786	168,348

¹ Receipt of investments from the University of New South Wales Foundation Trust on 1 June 2011.

² Deconsolidation of University of New South Wales International House Ltd as of 1 January 2011.

³ Forgiveness of intercompany loan to NewSouth Innovations.

⁴ Includes gain on sale of 78 & 82 Bay St properties.

⁵ Includes impairment on all assets except for student receivables and sundry debtors.

⁶ Relates to the revaluation of Australian Technology Park Innovaton Pty Ltd (ATPI).

Our global alumni community is now 245,000 strong, comprising graduates from 140 countries.

8 Faculties
1 College
52 Schools
97 Affiliated Institutes
8 Residential Colleges

Graduate Starting Salaries

Undergraduate
\$56,000

Employment Rate
84%

Postgraduate
\$100,000

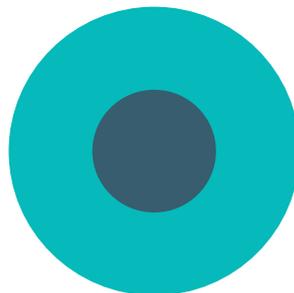
Employment Rate
92%

Faculties

- > Arts & Social Sciences
- > Australian School of Business
- > Built Environment
- > College of Fine Arts
- > Engineering
- > Law
- > Medicine
- > Science
- > UNSW Canberra (University College)

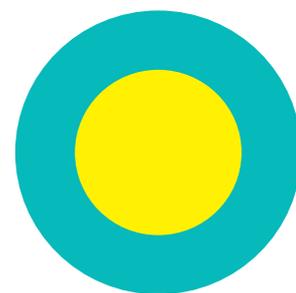
Top 10 Countries of Origin for International Students

- 1 China (including Hong Kong)
- 2 Malaysia
- 3 Indonesia
- 4 Singapore
- 5 USA
- 6 Korea
- 7 Vietnam
- 8 India
- 9 Saudi Arabia
- 10 Thailand



Student Mix

- 38,913 Local Students
- 13,701 International Students



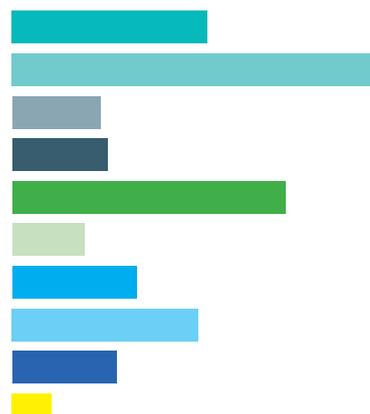
University Staff

- 3,018 Academic*
- 2,636 Professional*

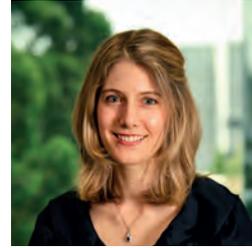
*Full-time equivalent (FTE)

Students by Faculty

- 6,975 Arts & Social Sciences
- 12,491 Australian School of Business
- 2,951 Built Environment
- 3,145 College of Fine Arts
- 10,046 Engineering
- 2,941 Law
- 3,547 Medicine
- 6,071 Science
- 3,184 UNSW Canberra
- 1,263 Other



2012 in review



January

UNSW leaders recognised in the Australia Day honours.

Professor Patrick Dodson delivers the inaugural Ghandi Oration.

The AGSM MBA Program ranked as the leading full-time program in Australia and 41st in the world by the *Financial Times*.

UNSW announces a \$110 million two-year redevelopment of its residential colleges.

NSW Director-General of Education and Communities, Dr Michele Bruniges, appointed honorary Adjunct Professor in the School of Education.

February

Law professor Jane McAdam (pictured above) appointed a Non-Resident Senior Fellow in foreign policy at the Brookings Institution.

UNSW physicists create a working transistor consisting of a single atom in a silicon crystal.

UNSW formally partners with its student organisation to deliver more student services and an enhanced campus environment.

President of the International Criminal Court, Judge Sang-Hyun Song, delivers the annual Wallace Wurth Memorial Lecture.

March

Visa process for new international students streamlined in a new partnership agreement with the Federal Government.

UNSW is the first university in the world to be awarded the QS 5 Star plus badge for excellence.

UNSW researchers identify Australia's most important wetlands for waterbirds following one of the most extensive aerial surveys of its kind in the world.

UNSW recognised as an Employer of Choice for its initiatives to support and advance women in the workplace.

July

The Black Dog Institute and UNSW launch a new interactive mobile phone and iPad tool to combat depression.

Nineteen researchers awarded Future Fellowships.

Nobel laureate for Physics Professor Brian Schmidt delivers the Dirac Lecture, hosted by UNSW's Faculty of Science.

UNSW awarded \$5.8 million for 20 projects by the ARC under its Linkage Projects scheme.

Former Chief Defence Scientist Professor Robert Clark appointed to the newly created Chair of Energy Strategy and Policy.

August

UNSW receives \$5 million funding for two new NHMRC Centres of Research Excellence.

UNSW wins three honours in the Eureka Prizes.

Aerospace engineer Dr John Young from UNSW Canberra awarded the 2012 ACT Young Tall Poppy of the Year.

Former Chief Justice of the High Court Sir Gerard Brennan delivers the annual Hal Wootten lecture.

UNSW hosts the Bollywood red carpet world premiere of 'From Sydney with Love', with UNSW in a starring role.

September

Engineering student Alex Green (pictured above) wins a bronze medal in cycling in the Paralympic games.

UNSW ranked in the top 60 universities in the 2012-13 QS World University Rankings.

UNSW scores the maximum five-star rating for nine key performance indicators in the 2013 *Good Universities Guide*.

UNSW law professor Megan Davis addresses the UN Human Rights Council in Geneva on Indigenous women's rights.

Construction begins on a new \$76 million cancer treatment and research facility at the Prince of Wales Hospital.



April

UNSW's Learning to Teach Online, a video-based program helping teachers in 138 countries step into the virtual classroom, wins a prestigious international award.

UNSW becomes a major partner of the Sydney Writers' Festival.

UNSW is the "undisputed national champion in attracting Facebook fans", according to a new social media index of universities.

UNSW legal experts, drug researchers and health professionals back calls for an overhaul of the approach to illicit drugs.

May

NSW Chief Scientist Professor Mary O'Kane opens a \$2.5 million bionic eye research facility to produce implantable electronics.

"Green steel" pioneer Scientia Professor Veena Sahajwalla appointed to the Federal Government's Climate Commission.

UNSW launches a new Diploma of Professional Practice to help students pursue professional careers.

Twenty-two elite student athletes receive prestigious Ben Lexcen Scholarships.

June

A record number of UNSW students going on international exchange.

Rugby great Ewen McKenzie and Olympic silver medalist sprinter Patrick Dwyer inducted into the UNSW Sport Hall of Fame.

UNSW named as Australia's most innovative university, winning the higher education category of the Thomson Reuters Citation and Innovation Awards.

Sir William Tyree receives a prestigious lifetime achievement award from the Australian Academy of Technological Sciences and Engineering.

October

UNSW researchers win six out of nine NSW Young Tall Poppy Science Awards.

The NSW Governor opens Balnaves Place, a new centre to help double Indigenous student enrolments at UNSW.

The new Centre for Healthy Brain Ageing will help tackle an illness that is the nation's third leading cause of death, dementia.

UNSW becomes the first Australian university to offer free online computing courses.

UNSW's brightest PhD students compete in the annual Three Minute Thesis competition.

November

Colombo Plan anniversary marks 60 years since the first international students arrived at UNSW.

Five distinguished UNSW researchers recognised with NSW Scientist of the Year awards.

UNSW awarded two prestigious national teaching awards.

Australia's best science writers recognised at the inaugural Bragg UNSW Press Prize for Science Writing.

UNSW awards honorary degree in business to India's Mr Ratan Tata, Chairman of the Tata Group, who delivers the Wallace Wurth Dialogue.

December

UNSW's word-class research recognised in the *Excellence in Research for Australia* report.

UNSW receives highest medical research funding with more than \$52 million for 15 NHMRC grants, announced on campus by Health Minister Tanya Plibersek (pictured above).

UNSW secures funding for one of six new Australia-China Joint Research Centres.

Launch of new Cooperative Research Centre for Low Carbon Living.

NSW Government announces a new light rail line to be built to UNSW.

Strong and effective governance and management have set clear strategic goals for the University, underpinning our success and positioning us into the future.

Governance

UNSW Council

The University is governed by a Council led by the Chancellor under the University of New South Wales Act 1989 ("The Act").

The Act was amended during 2012 to adopt new governance provisions under *The Universities Governing Bodies Act 2011*. The Council's size was reduced from 22 to 15 members effective from 1 July 2012. Members represent the interests of the University and community, contributing expertise in a range of areas, including finance, commercial activities, law, governance and management, and planning and development.

The Council has Finance, Audit, Risk, Nominations and Remuneration and Honorary Degrees committees. Its Student Affairs Committee was disestablished on 20 August 2012.

The Council is able to draw on additional specialised expertise by appointing external members to its committees. Council and Council committee members serve the University on a voluntary basis. Further information on Council, its membership and committees is available on the UNSW website.

Official Members

Chancellor
Mr David M. Gonski AC
BCom, LLB UNSW, FAICD, FCPA

President and Vice-Chancellor
Professor Frederick G. Hilmer AO
LLB Syd, LLM *Pennsylvania*, MBA *Wharton*

President, Academic Board
Professor Prem Ramburuth
BA, DipEd *South Africa*, MEd *Sydney*, EdD UNSW,
Licentiate RAM, London, GradDip TESOL
South Australia, MAICD

Ministerial appointments

Mr Brian Long FCA
Pro-Chancellor

Ms Jillian S. Segal AM
BA LLB UNSW, LLM *Harvard*, FAICD
Deputy Chancellor

Elected members

Ms Samantha Bobba

Mr Paul Keighley
BSc (Env.Sci.), M Env.Sci. Law Syd MEIANZ CEnvP

Professor Rakesh Kumar
MBBS *All-India IMS, New Delhi*, PhD MD UNSW FRCPA (Hon)

Mr Karl Natschev

Scientia Professor John Piggott
BA Syd MSc PhD *London* FASSA

Members appointed by Council

Mr Nicholas Carney
BCom, LLB UNSW, MAICD

Dr Tina Clifton
MB BS (Hons) BHA UNSW
Pro-Chancellor

Mr Terry Davis

Mr Matthew Grounds
BCom LLB UNSW

Mr Warwick Negus
BBus UTS, MComm UNSW, FFin, MAICD

Former members

Professor Anthony Dooley was a Council member from the beginning of the year and completed his term of office on 27 April 2012.

The following were Council members from the beginning of the year and completed their term of office on 30 June 2012: Dr Jennifer Alexander, Ms Evelyn Douek, Ms Janina Jancu, Dr Wallace King AO, Mr Geoffrey Lawson OAM, Mr Simon Lindsay, Dr Elizabeth McMahon, Mr Paul Pearce and Professor Joseph Wolfe.

Academic Board

The Academic Board is the principal academic body of the University, responsible for academic standards and for formulating and recommending policy. Comprising 56 members, the Board advises the Vice-Chancellor and Council on matters relating to teaching, scholarship and research and takes decisions on delegation from Council. Its functions are conferred under the University By-Law.

Management

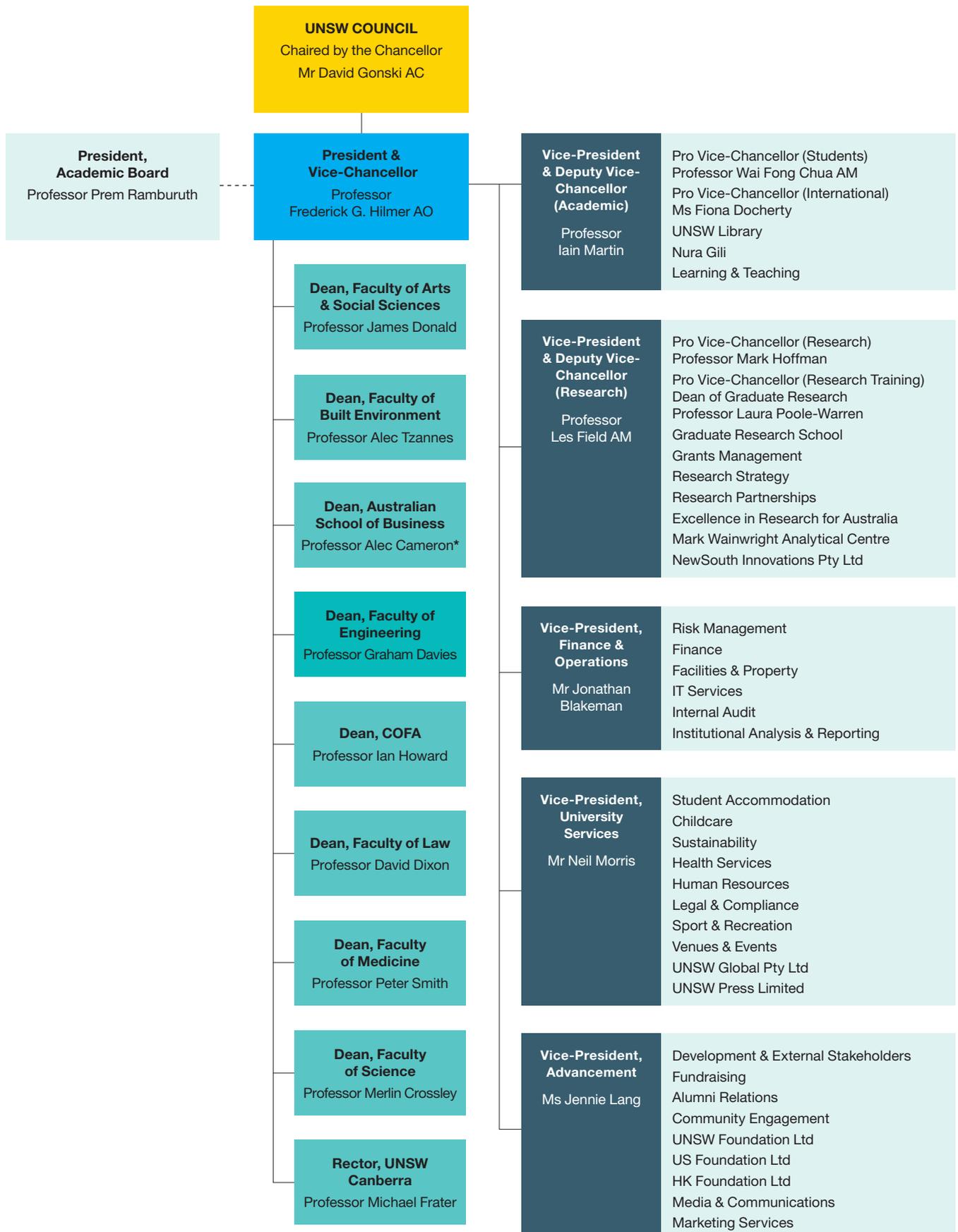
The Vice-Chancellor is the principal executive officer of the University and is responsible for the overall direction of corporate planning, budget activities and external relations. Under the Council, the Vice-Chancellor manages and supervises the administrative, financial and other activities of the University.

Reporting to the Vice-Chancellor is an Executive Team, eight Faculty Deans and the Rector of UNSW Canberra, who have significant delegated authority in relation to their areas.

More information on the Executive Team, Deans and Senior Officers is on p28.

Organisational Chart

As at 31 December 2012



* Professor Cameron left in December 2012. Professor Geoffrey Garrett was appointed in January 2013

As a leading research-intensive university, we focus on contemporary issues critical to the world's future.

Research



By thinking outside the square, Professor Veena Sahajwalla is pioneering the use of waste in the production of raw materials – converting old tyres into steel is just the beginning. In 2012 she won The Australian/Shell Innovation Awards and was appointed to the Federal Government's Climate Commission.

Positioned in the world's top 100 universities on all major rankings.

Named Australia's most innovative university in the Thomson Reuters Awards.

Received the highest level of industry support nationally, with \$15m pledged from Linkage partner organisations.

Fully implemented 'Easy Access IP', offering the majority of our intellectual property to companies for free.

#1

NHMRC Program Grants with 6 new grants worth \$52m

97%

Research outputs 'at or above world average' in ERA

\$300m

Secured in research income

#52

2012 QS World University Rankings

UNSW has a unique focus on the scientific, technological and professional disciplines. Our high-quality research and extensive collaborations with other institutions and industry enable us to take the lead in addressing real-world problems such as climate change, medical treatments and breakthrough technologies.

Research excellence

UNSW continues to perform strongly across all national and international performance indicators.

The *Excellence in Research for Australia* report (ERA), which evaluates research activity and quality across Australia's 41 higher education institutions, ranked UNSW "as at or above world standard" in 97% of our research outputs across all disciplines. We achieved the top ranking, "well above world average" in 25 units.

We continued our strong performance in international rankings, positioning 85th in the Times Higher Education Rankings and 52nd in the QS Rankings, and we improved our position in the SJTU Rankings from 150 to 142.

We again performed strongly in the 2012 Academic Ranking of World Universities, jumping eight places to 142 for our research performance. UNSW was the only Australian university in the top 100 for Mathematics and one of only four Australian institutions in the top 75 for Engineering.

We were named "Australia's most innovative university", winning the higher education category of the Thomson Reuters Citation and Innovation Awards for 2012, based on the size of our patent portfolio, success rate of patents, extent of globalisation and influence of the innovations.

Research funding

UNSW ranked third in the Go8 for research income, securing close to \$300 million in the 2012 HERDC return. In addition, we received around \$150 million in Research Block Grant funding.

We achieved the best result in Australia for the National Health and Medical Research Council (NHMRC) funding announced in December, for which UNSW was awarded more than \$52 million for 15 grants, or 41% of the total. We received six prestigious Program Grants, representing a 100% success rate in this scheme with funding due to commence in 2014. UNSW had the second largest increase in total NHMRC funding among the Go8 and increased our ranking from sixth to fourth. Our average NHMRC Project Grant size increased by 8%.

We achieved equal first place in the number of new NHMRC Partnerships Projects.

We were awarded more than \$29 million for 88 projects in the round of Australian Research Council (ARC) major grants to commence in 2013. Our researchers received more than \$20 million for 64 ARC Discovery projects across a range of disciplines, bringing us to third in the country. We received funding of \$690,000 for two projects under the Discovery Indigenous scheme, as well as seven Linkage Infrastructure, Equipment and Facilities projects totalling \$2.4 million, the top ranking.

In other funding successes, we received two new ARC Laureate Fellowships, and we were the only Go8 University to increase its percentage share of Research Block Grant funding.

UNSW researchers are leaders in their field, regularly receiving prestigious international awards and fellowships.

Links with industry

UNSW was awarded \$5.8 million for 20 ARC Linkage Projects, topping the State and ranking us second nationally. The projects received the highest level of industry support with \$15.1 million pledged from partner organisations.

These projects include the effects of torture on the brain, the next generation of high-efficiency solar cells, and new approaches to iron making.

Research centres

UNSW is involved in more than 100 research, teaching program and community centres including NHMRC Centres of Research Excellence, ARC Centres of Excellence, National Research Centres and a number of affiliated Medical Research Institutes.

In 2012 we were awarded two new Centres of Research Excellence (CRE), building on the previous year's success in winning three centres, the best result in the country. UNSW now has more NHMRC CREs than any other university or institute. The two new centres will target suicide prevention and substance abuse.

In December we launched the new Cooperative Research Centre (CRC) for Low Carbon Living, led by Professor Deo Prasad, which will work with leading building and construction companies to help Australia achieve its 2050 greenhouse gas emissions target.

We were awarded the Australia-China Joint Research Centre for Minerals, Metallurgy and Materials (3-M Centre) led by Professor Aibing Yu of the School of Material Science & Engineering.

Higher degree research

Our higher degree research completions continued to be significantly above the Go8 average. We were third in the Go8 in the number of students commencing higher degree research.

Research outputs

UNSW had the highest citations per paper of any Australian university in 38 areas (2005-2009).

We were the highest ranking university in the ATN/Go8 Impact Trial in 2012. Of the 14 case studies assessed, 35% were judged 'A' (outstanding impact); 42% 'B' (very considerable impact) and 23% 'C' (considerable impact). There were no UNSW examples below 'C'.



L-R Andrew Dzurak, Jarryd Pla & Andrea Morello

Quantum computing breakthrough

Ultra-powerful quantum computers have moved a step closer to reality with the creation of the first working quantum bit based on a single atom in silicon.

A team lead by Scientia Professor Andrew Dzurak and Dr Andrea Morello of the UNSW School of Electrical Engineering described in a landmark paper in the journal *Nature* how it was possible to both read and write information using the spin, or magnetic orientation, of an electron bound to a single phosphorus atom embedded in a silicon chip.

"For the first time, we have demonstrated the ability to represent and manipulate data on the spin to form a quantum bit, or 'qubit', the basic unit of data for a quantum computer," says

Professor Dzurak.

PhD student Jarryd Pla, the lead author on the paper, says: "We have been able to isolate, measure and control an electron belonging to a single atom, all using a device that was made in a very similar way to everyday silicon computer chips."

Quantum computers will one day solve complex problems that elude even our largest supercomputers, such as cracking modern encryption codes, searching databases, and modelling biological molecules and drugs.

UNSW's ARC Centre for Quantum Computation and Communication Technology, led by Scientia Professor Michelle Simmons, achieved another breakthrough with the creation of a working transistor consisting of a single atom placed precisely in a silicon crystal.

Associate Professor Emma Johnston won a 2012 NSW Science and Engineering Award for her work on the effects of human disturbances on diverse marine communities in Sydney Harbour.



Easy Access IP

In 2011 UNSW became one of the first universities in the world to offer the majority of its intellectual property (IP) to companies for free. This scheme, 'Easy Access IP', was fully implemented in 2012 by UNSW's technology commercialisation company, New South Innovations, with nine new Easy Access licenses on 14 pieces of technology and another 22 in the pipeline.

Examples of research findings, which are currently available for free to business, include: improved fuel systems and laser ignition for scramjets; harder, lighter, scratch-resistant polymers; and improved electrical conductivity of PVA glue.

Easy Access IP is now being adopted by other Australian universities.



Most forensic sciences rely heavily on expert interpretation – including DNA analysis – which has led to some notable miscarriages of justice. ARC Future Fellow Professor Gary Edmond's research aims to determine how justice can be better served.

100% success rate for superstars

NHMRC Program Grants are awarded to the country's best and brightest medical researchers. We received six of these prestigious grants, representing a 100% success rate in the funding round due to commence in 2014.

Professor David Cooper (pictured) of UNSW's Kirby Institute received \$12.6 million for a major research program involving seven groups in Sydney and Melbourne that will look at how HIV lies dormant in some parts of the body, evading eradication by HIV therapy, as well as how the immune system responds to the virus.

"The development of cures, vaccines and better treatments for HIV/AIDS is an urgent global health priority," Professor Cooper

says. "This research program funding will allow for design of novel vaccines and treatments, and the translation of laboratory findings into human clinical trials."

A team led by Professor Jeffrey Braithwaite, from UNSW's Australian Institute of Health Innovation, received \$10.9 million to lead an international research team looking at how to restructure modern health care systems to make them more effective, efficient and sustainable.

Other Program Grants were awarded to teams investigating cardiovascular disease, drug-related deaths in Australia and the Asia-Pacific, weakness and fatigue, and treatments for hepatitis C.

Innovative research and teaching combined with strong international and industry links give our graduates a competitive edge.

Student Experience



The UNSW's Co-op industry scholarship program attracts high-achieving students like Sally Qin (Finance and Banking) and Tobi Ajibola (Actuarial Studies), who commenced in 2012. "One of the best things about Co-op is that it allows you to apply what you have learnt in the classroom to the workforce," says Sally.

Awarded the five-star rating for eight key performance indicators in the Good Universities Guide.

Our graduates were placed in the top 5% for starting salaries.

Our cosmopolitan campus is home to students from more than 120 countries.

Indigenous student enrolments increased by 26% to 328.

247

First preferences from NSW's top 500 performing students - more than any other university

90.60

Highest median ATAR of school leavers selecting UNSW as their first preference

\$100k

Median postgraduate starting salary, best result in Australia

870

Students participated in international internships and exchanges

UNSW has one of Australia's most diverse student populations, welcoming students from more than 120 countries. We strive for student equity and inclusion. One third of our students are the first in their family to attend university and our Indigenous student enrolment is increasing rapidly.

In demand

UNSW continues to attract high-achieving students. We received 247 of the first preferences from NSW/ACT applicants with ATARs in the Top 500 (typically ATAR 99.45+), more than any other university. Medicine, Law and the Australian School of Business were the most popular Faculties for applicants in the top 500. We also attracted a record number of Scientia Scholars – students who achieved ATARs of 99.9+.

We scored the maximum five-star rating for eight key performance indicators in the 2013 Australian Good Universities Guide. For graduate employment – getting a job, starting salaries and positive graduate outcomes – UNSW rated in the top group for all three measures. UNSW also achieved five-star results in student demand, staff-student ratios, research grants, research intensity, and cultural diversity.

The Australian Graduate Survey 2012 showed UNSW graduates were in the top 5% for median starting salaries, while our domestic postgraduates receive the highest median starting salaries when compared to domestic postgraduates from any other Australian university.

Employment readiness

UNSW's extensive links with industry enable our students to gain valuable work experience and career insight.

We offered 80 Co-op Scholarships to high-achieving students to provide industry training, professional and leadership development, and eight new companies became sponsors.

Now in its fifth year, the Graduate Advantage Program gave 58 students the chance to attend an intensive week of workshops and panel discussions with leading employers.

UNSW became the first university to offer a Diploma of Professional Practice, providing students with the skills, knowledge and capabilities to be successful in their future careers. The program allows students to complete the Diploma concurrently with their undergraduate degree and graduate with two awards.

Scholarships

In 2012 we strengthened our suite of academic and equity scholarships. For the first time we offered the UNSW High Achiever Scholarship, which targeted students with an ATAR of 99+. We offered the UNSW All Rounder Scholarships for a second year.

With a focus on student equity, we offered 10 new Progressive Scholarships to students coming from ASPIRE schools and doubled the number of Vice-Chancellor's Equity Scholarships to 20. Ten new scholarships were established to assist current UNSW students who experienced financial need and were at risk of not completing their studies.

2012 also saw a targeted approach to attracting top international students with over 150 scholarships offered to high academic achievers.

We offer a wide range of support services and activities to enhance the student experience. These include more than 100 student-run clubs and societies, UNSW Sport and Recreation, and international exchange.

Student Experience

Student Life

The Student Participation Adviser Team was established to offer individual support and proactive initiatives to help students transition to UNSW and improve life skills and competencies, particularly for students from low socio-economic backgrounds. Since its establishment in January 2012, there have been over 12,000 student contacts.

The UNSW Leadership Program, launched in July 2012, is an extra-curricular program combining community volunteering, self-reflection and professional development opportunities. More than 700 students are enrolled in this free program, which is accredited by UNSW Advantage and included on students' Australian Higher Education Graduation Statement.

UNSW Advantage offers paid and voluntary opportunities for UNSW students to expand their skills and knowledge base. During 2012 over 3,100 students participated in the program, a 4% increase on 2011.

Student Minds@UNSW is a student volunteer initiative that commenced in 2012 to improve students' understanding of psychological wellbeing.

UNSW participated in Univariate, an inter-university competition encouraging students to apply their talents, disciplinary learning and skills to a real world business issue or project. The program was launched in 2012 in collaboration with UTS, University of Sydney and Macquarie University.

The new Uni-Verse mobile phone app, for iPhone and Android users, includes campus maps, events, news feeds, contacts, support and transport information.

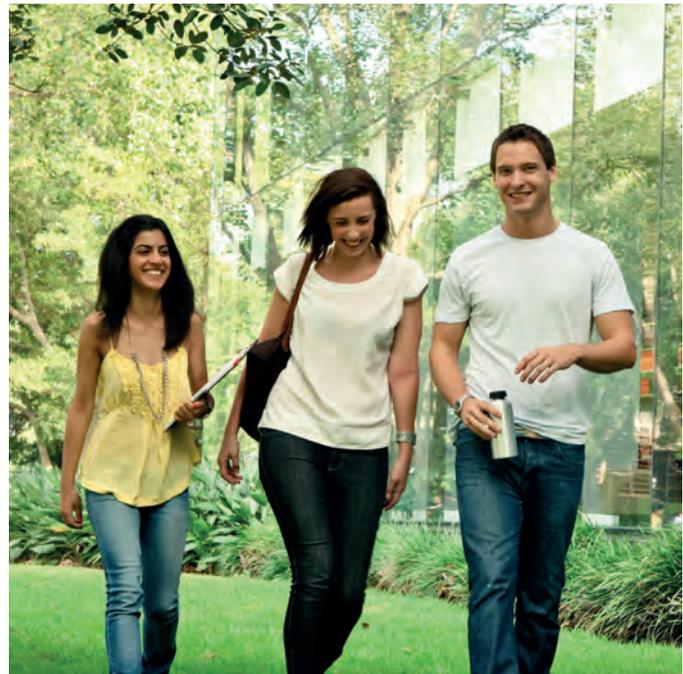
Indigenous students

There was a 26% increase in Indigenous student enrolments in 2012 to 328, moving UNSW closer to achieving our goal of 500 students by 2015. While Indigenous students continue to be concentrated in Medicine, Law, Arts and Social Sciences, and Fine Arts, there is exciting growth in areas such as Business (29 students), Science (24 students) and Engineering (19 students).

UNSW is growing corporate links that foster career-ready capabilities in our Indigenous students. A collaborative effort between Lend Lease, Nura Gili and the Australian School of Business gave students across the Faculties of Business, Law, Engineering and Built Environment the opportunity to meet with leaders of the Barangaroo project. This led to students obtaining valuable summer work experience with the project.

UNSW's new Indigenous Studies Major and Minor were offered for the first time in 2012, with 151 enrolments in new first-year course 'Indigenous Australia' and 107 in 'Aboriginal Sydney'.

A record number of students accepted offers to UNSW after successfully completing the 2012 Nura Gili Indigenous Pre-Programs. These are intensive four-week residential programs for Indigenous students, especially school leavers. Of the 53 students who participated, 38 have accepted offers of places for 2013.



Law revamp brings global focus

The biggest overhaul of UNSW's law degree in 40 years brings a global focus centre stage. "Students will learn practical skills but more importantly, they will understand law and legal values better and learn critically by being involved in law in action," says Dean of Law, Professor David Dixon.

The new program is the most ambitious by an Australian law school and follows intensive consultation with students, the legal community and employers. It aims to open students' eyes to the practical and international opportunities available to them with a law degree.

Trina Ng, who initially chose law as a way into a career with an investment bank, recently landed a job as an associate in the international

arbitration practice of White & Case LLP, an international law firm based in New York.

During her time at UNSW she went on exchange to Germany, took part in an international debate in Vienna, completed an internship at the International Court of Arbitration at The Hague, edited the UNSW Law Journal, published a research paper on the human security implications of climate change, and worked on developing human rights clinics in the Asia-Pacific. All of which gained her course credits.

Our T20 cricket team won the 2012 Australian University Championships, and went on to represent the country at the Red Bull Campus Cricket World Finals in India.



International Students

UNSW welcomed 5,617 commencing international students from 125 countries, despite turbulence in the international sector due to strong competition at home and abroad, the high Australian dollar and uncertainty surrounding visa reform.

We further expanded our extensive global links, signing 109 new and renewed agreements with a range of leading universities in 31 countries. A new framework for establishing MOUs was put in place with the Division of Research.

In 2012, 550 students embarked on outbound exchange placements. Some 870 students participated in international internships, summer school, study tours, exchange and volunteer abroad opportunities. We also welcomed 908 students through the Student Exchange and Practicum Programs. More than 800 students attended Study Abroad semester programs from 28 countries.

Staying relevant

Our new programs, dual degree combinations and specialisations approved in 2012:

- Undergraduate (Bachelor)
 - > B Science & Business
 - > B Social Research & Policy
 - > B Arts and Business
 - > B Actuarial Studies (Co-op)
 - > B Social Work / B Criminology & Criminal Justice
 - > B Social Work / B Social Research and Policy
 - > B Commerce / B Media (PR and Advertising)
 - > B Commerce / B Education (Secondary)
 - > B Actuarial Studies / B Economics
 - > B Economics / B Science
 - > B Economics / B Advanced Science
 - > B Economics / B Science (Advanced Mathematics)
 - > B Music / B Science
 - > B Music / B Science (Advanced)
 - > B Design / B Art Education
 - > B Laws / B Fine Arts
 - > B Laws / B Social Research and Policy
 - > B Media Arts / B Computer Science
 - > B Art Theory / B Social Research and Policy

- Postgraduate
 - > Master of International Business
 - > Master of Information Systems Management
 - > Master of Science (Climate Sciences)

- Research
 - > Creative Practice - Doctor of Philosophy
 - > Social Sciences - Doctor of Philosophy
 - > Humanities - Doctor of Philosophy



Inspired teaching

UNSW's teaching prowess was again recognised in 2012 with a raft of key awards.

Academics from Japanese Studies and Medicine were named among Australia's most inspiring teachers in the federal government's Office of Learning and Teaching (OLT) Citation Awards in September.

Six lecturers (pictured) from Japanese Studies were recognised for "creating and sustaining a community of learners and speakers of Japanese".

UNSW Medicine's Dr Patsie Polly and Gwyn Jones, from The Learning Centre, were honoured for their work demonstrating that collaboration enhances learning in medical research.

In November, UNSW also featured prominently in the OLT awards.

Associate Professor Gangadhara Prusty, from the Faculty of Engineering, won a high-profile Award for Teaching Excellence, and UNSW's social inclusion program ASPIRE was recognised for its work promoting tertiary education to students from low socio-economic backgrounds.

UNSW forges partnerships with the wider community in Australia and internationally to ensure our influence extends well beyond the campus gates.

Community Engagement



The generosity of thousands of UNSW alumni, staff and friends enables many young people to attend UNSW who could not otherwise afford to do so. Arts student Olivia Smith, from Dubbo, is studying psychology and criminology thanks to assistance she received through the Vice-Chancellor's Annual Scholarship Appeal.

The UNSW Foundation's Capital Campaign plan will transform the UNSW campus.

Opening of Balnaves Place provides a central hub for Indigenous programs on campus.

The number of donors in 2012 increased to 3,328.

In its 50th year, UNSW Press continued to receive high profile awards.

\$19m

Secured in fundraising income

5000

School students engaged via the ASPIRE program

60

Years of welcoming international students to UNSW

\$1m

Pledge from Sir Michael Bishop for the Kirby Institute

Our objective is to make an impact on contemporary issues by being a key source of expertise in our communities, ensuring vibrant and growing partnerships with industry, donors and community organisations, and developing and maintaining highly valued relationships with alumni, former staff and UNSW supporters.

Fundraising

In 2012 the UNSW Foundation secured \$19 million in fundraising income as well as \$16 million in new pledges, with the number of donors increasing from 3,130 in 2011 to 3,328 in 2012.

UNSW's total donated fund balance stood at \$136 million on 31 December 2012, of which \$87 million is held in Endowment and \$49 million is held in Beneficial Funds. These funds support research, Chairs, capital works, scholarships and prizes.

The UNSW Foundation focused on developing a Capital Campaign plan to transform the UNSW campus with modern student accommodation, high quality public spaces and multipurpose, sustainable buildings.

In 2012 major philanthropic giving to the University included:

- > A pledge from Sir Michael Bishop for \$1 million over three years to the Kirby Institute
- > Ongoing support from The Kids Cancer Project with a new pledge of \$900,000 for children's cancer research
- > A \$440,000 gift from the Bill and Melinda Gates Foundation to support the Pacific Friends of the Global Fund
- > A contribution of over \$442,000 to the Olle Fund for Brain Cancer Research for work by Dr Kerrie McDonald in the Lowy Cancer Research Centre
- > A contribution of \$350,000 from Rio Tinto/Northparkes to support a Chair in Mine Geotechnical Engineering
- > A pledge from ANZSOG for \$236,000 to support a senior lecturer in ASB
- > A pledge for \$227,000 from KPMG to support the Centre for International Finance & Regulation

- > A contribution from UBS of \$250,000 towards Nura Gili's Indigenous projects
- > A pledge of \$210,000 from NuVasive for spinal research, under the supervision of Dr Ashish Diwan at the Department of Surgery at UNSW Medicine's St George Clinical School
- > \$205,000 for the NSW Cancer Survivors' Centre received from the proceeds of the Dry July Campaign to enable the centre to buy equipment and help patients cope with the challenges they face after cancer treatment
- > A pledge of \$190,000 from the Sydney Children's Hospital Foundation for research in paediatric epilepsy
- > A two-year pledge of \$160,000 for the Ngiam Tong Yuen scholarship for an Indigenous student (Mr Ngiam Tong Yuen is a former Colombo Plan scholar)
- > A pledge from former Chancellor Dr John Yu AC of \$100,000 for the naming rights of a workshop/studio in honour of his late partner Dr George Soutter – the George Soutter Etching Studio
- > A contribution from Ron Finemore Transport Pty Ltd of \$100,000 for the Ron Finemore Transport Academic Achievement Awards for rural student scholarships.

UNSW Foundation Board of Directors

Mr David Gonski AC (Chairman)	Professor Ken Maher
Mr Richard Alcock	Ms Christine Margaret McNamee Liddy AO
Mr Robert Hugh Barry	Dr Peter Edward Mason AM
Dr Anthony Berg AM	Mr Bruce Morgan
Mr Alexander Boyarsky (until November 2012)	Mr Warwick Negus
Mr Robert Cameron AO	Mr Timothy Olsen
Dr Holly Forsyth	Mr Simon Poidevin OAM
Mr Daniel Gauchat	Mr Julian Reynolds
Professor Margaret Harding (until April 2012)	Ms Jillian Segal AM
Dr Catherine Harris AO PSM	Mr Shane Simpson AM (from August 2012)
Professor Frederick Hilmer AO	Dr Colin Sutton
Ms Cassandra Kelly	Sir Alfred William Tyree OBE
Dr Wallace King AO (Deputy Chair)	Mr Albert Yue-Ling Wong

From public lectures and open days to concerts and exhibitions, we welcome thousands of people through our gates every year.

Community Engagement

Schools

The ASPIRE Program is a UNSW equity initiative aiming to provide students with the social capital to make informed choices about their future careers. By the end of 2012 ASPIRE was in partnership with 55 schools. Sixty offers were made to students from ASPIRE schools, up from 43 in 2011, and we worked with over 5000 school students both in school and on-campus from Year 2 to Year 12.

The Network Schools Program has expanded to 71 partner schools, who are invited to participate in approximately 100 exclusive activities, events, master classes, special information sessions and workshops at UNSW. In 2012, students from Network Schools made up nearly a quarter of the entire NSW & ACT high school leaving cohort (21.47% or 9426) and 80.33% (441) of the top 500 students in 2012.

The U@UNSW program is an alternate pathway to UNSW for targeted students of lower socio economic backgrounds, based on multiple indicators of ability, motivation and potential success in higher education for students still at high school. The program has expanded dramatically from 15 schools in 2011 to 33 schools in 2012. In 2012, 47 students qualified for an offer at UNSW and 30 students took up this offer.

Alumni

UNSW welcomed thousands of graduates back to our Kensington campus to attend a range of events, while alumni receptions were held in Hong Kong, Singapore, Jakarta, Taipei, Seoul, Santiago, San Francisco and New York.

Attendance at Young Alumni Network Drinks increased by 30% through the introduction of the popular high achieving Young Alumni speakers initiative. More than 9000 alumni around the world have joined the official UNSW Alumni LinkedIn group.

A total of \$743,915 was received in gifts and pledged future gifts from 1956 alumni in the VC Alumni Scholarship Appeal, which has provided 50 students from disadvantaged backgrounds the opportunity to study at UNSW since the Appeal commenced in 2009.

Public forums and community outreach

UNSW led public debate through free public lectures and conferences on diverse topics, and continued to cultivate partnerships with a range of community groups and other organisations.

Speakers who addressed audiences on campus in 2012 included:

- > Judge Sang-Hyun Song, President of the International Criminal Court, The Hague, delivered the Wallace Wurth Lecture.
- > Industrialist and philanthropist Mr Ratan Tata participated in the Wallace Wurth Dialogue, focusing on his career and success in leading one of India's most successful companies, the Tata Group.
- > Indigenous leader and co-chair of the Expert Panel for Constitutional Recognition for Indigenous Australians, Professor Patrick Dodson, delivered the inaugural Gandhi Oration.
- > Nobel laureate for Physics Professor Brian Schmidt delivered the Dirac Lecture.



A new learning hub for Indigenous students

Balnaves Place – Home of Nura Gili, a new learning centre designed to help double Indigenous student enrolments at UNSW, was opened by the NSW Governor Professor Marie Bashir.

UNSW is committed to boosting the numbers of Indigenous students to 500 by 2015. The new centre provides a central hub for Indigenous programs on campus, increasing UNSW's capacity to provide Indigenous student support services and courses and research using state-of-the-art technological facilities with work and study spaces.

Many of UNSW's 328 Indigenous students have been assisted by the pre-programs and education pathways offered by Nura Gili, resulting in retention rates similar to non-Indigenous students.

"This new home will be a special place for all Nura Gili staff and students at UNSW. We will offer the best facilities possible to ensure we graduate the best Indigenous students in the country – graduates who will become leaders in their fields," said Director of Nura Gili, Professor Martin Nakata.

Balnaves Place was funded by a \$1.5 million donation from The Balnaves Foundation.

"Neil Balnaves has shown great leadership in his philanthropic support of initiatives and programs like Nura Gili to help close the gap in Indigenous education," said Vice-Chancellor Professor Fred Hilmer.

Indigenous projects are made possible by a generous contribution of \$250,000 from UBS.

There are major opportunities for growth in the trade and business relationships between Australia and India, the Chairman of the Tata Group told an audience at UNSW after receiving an honorary Doctor of Business.



- > The annual Town and Gown Dinner showcased UNSW's research strengths.
- > Former High Court Chief Justice Gerard Brennan delivered the annual Hal Wootten lecture.
- > UNSW strengthened its affiliation with the Sydney Writers' Festival, becoming a major partner of the iconic literary event.
- > The creator of the award-winning 'The Vagina Monologues', Eve Ensler, delivered the annual Australian Human Rights Centre lecture.
- > The John Hume Institute for Global Irish Studies hosted annual Bloomsday celebrations for the first time on Bondi Beach.
- > UNSW hosted the first symposium to celebrate the work of Shirley Hazzard, one of Australia's most significant expat authors, in New York.
- > In May, UNSW Press celebrated 50 years in business, publishing some 1200 titles over that time. The Press continued to win major literary awards, launched the inaugural Bragg UNSW Press Prize for Best Science Writing and the UNSW Bookshop was named Campus Bookshop of the Year.
- > UNSW Alumni hosted two BrainFood Lectures: 'Are we losing our young people to alcohol & drugs?' and 'It won't happen to me' – cybercrime myths & misconceptions.

Honorary degrees

In 2012, we awarded eight honorary degrees to outstanding candidates in recognition of their significant achievements and service to the community: Nigel Westlake (Hon.DMus), Lucy Turnbull (Hon.DLitt), the Hon. Susan Ryan (Hon.DLitt), Mark Bouris (Hon.DBus), James Harrowell (Hon.LLD), Ratan Tata (Hon.DBus), Patrick Dodson (Hon.DLitt) and Christopher Roberts (Hon.DSc). Hilton Immerman was awarded an honorary fellowship.



Scientia Professor Michelle Simmons carried the audience at TEDx "ideas worth spreading" with her popular talk on quantum computing. Associate Professor Angela Moles also spoke at the Sydney event.



International students bring global focus

It is 60 years since Australia first opened its doors to students from Asia under the Colombo Plan, a key initiative focused on education and technical capability to help develop the region.

As the Federal Government proposed deepening ties with Asia in its Australia in the Asian Century White Paper, a gala dinner in November brought together some of UNSW's first international intake.

They included Mr Rodrigo Tennyson, 82 (pictured above), who arrived from Ceylon (now Sri Lanka) to study Chemical Engineering at a time when Australia had only just begun dismantling its White Australia Policy and the three-year old UNSW campus was still

a series of makeshift classrooms and dormitories. He attended the dinner with fellow Colombo Plan alumni from Indonesia, Vietnam and Singapore.

"I am happy to have been part of the humble beginnings of UNSW. In six decades it has blossomed to become an academic institution of significant stature," Mr Tennyson said.

"In parallel, Australia has left behind its inward-looking legacy and transformed itself into a multinational and multi-ethnic country that is a shining example to the rest of the world."

Improving our leadership and operations to maximise resources are central to the pursuit of our strategic intent.

Capabilities & Resources



The \$125 million, state of the art Tyree Energy Technology Building was opened as UNSW's new home for ground-breaking energy research. The 6 Green Star-rated building is one of the world leaders in environmentally sustainable building practices.

Major expansion of student accommodation will see on-campus residential places doubled in four years.

The State Government announced a new light rail linking UNSW to the CBD.

New campus retail master plan will provide staff and students with greater choice and value for money.

UNSW staff received a range of awards and grants in recognition of their research and teaching excellence.

\$210m

Investment in infrastructure

86%

Staff are proud to work at UNSW – well above industry benchmarks

110

Infrastructure projects

82%

General waste recycled

Major investments in our staff and infrastructure create the best possible campus environment to support research, teaching and learning.

World-class facilities

The \$125 million Tyree Energy Technology Building was completed on time in January 2012 and occupied prior to the commencement of the academic year. The building was formally opened on 31 August 2012 by the Minister for Climate Change and Energy Efficiency, the Honourable Greg Combet MP.

In 2012, \$37.1 million was invested in small buildings, alterations and additions and on capital upgrades. Among the many achievements were a new 48-place child care centre, Owl's House, new consolidated accommodation for UNSW's Indigenous student support organisation, Nura Gili, and new and expanded Rural Clinical School facilities at Port Macquarie, Albury and Griffith.

A \$58 million redevelopment of COFA's Paddington Campus was nearing completion by the end of 2012. The project includes a major new art gallery fronting Oxford Street, and significantly expanded refurbished teaching and research facilities around a new central courtyard.

Our student accommodation continues to expand. The 399-bed University Terraces, an independent living-style accommodation development, has neared completion, and progress continues on the \$110 million, 947-bed Kensington Colleges Redevelopment.

Construction of the \$146.2 million major modernisation and expansion of the Wallace Wurth Building commenced in 2011 and is due for completion in stages from May 2013 through to March

2014. When the new facilities are complete, the Kirby Institute will relocate to the Kensington Campus from St Vincent's Hospital campus to join the School of Medical Sciences.

Building is due to commence on a \$146.5 million Materials Science and Engineering Building. UNSW is contributing \$23.8 million to a new Australian Advanced Treatment Centre on the Prince of Wales Hospital Campus, and construction is due to start on the \$20 million Commonwealth-funded Port Macquarie Joint Health Education Facility.

Construction is due to commence in mid-2013 on the Faculty of Engineering Accommodation Renewal Program. Following a Faculty review, an extensive feasibility study was undertaken in 2012 to identify the preferred strategy for the capital renewal, modernisation and expansion of the Faculty of Science's Biological Sciences Building.

Our excellent working conditions include flexible hours, family friendly work practices, training opportunities, staff development and an emphasis on gender equity.

Capabilities & Resources

Transport

Several initiatives were implemented throughout 2012 to improve transport to and from UNSW. Following our extensive involvement to lobby the NSW government for extension into light rail, an announcement was made in late 2012 to confirm the new mass transport system linking the Sydney CBD with Randwick via Central as part of the NSW Transport Master Plan.

The UNSW Gate 9 bus stop passenger queues for the 891 express bus were redirected and a new pathway installed to reduce congestion on High Street for pedestrians. A new timetable for the 891 express bus service to Central Railway has been implemented for afternoon services, providing improved services aligned with passenger demands.

A travel concession for international students was approved for the first time in 2012, for MyZone 2 and MyZone 3 tickets.

Security

A review of the security operations structure, increased high visibility patrolling and crime reducing initiatives such as bike tagging and incident mapping saw a 21% decline in crime incidents reported on campus since 2011.

Wilson Security commenced operations on campus, providing a more robust patrolling structure and higher visibility for roving patrols. Our security services continued to maintain involvement in the Crime Prevention Partnership with the NSW Police Eastern Beaches and Randwick City Council, developing ongoing strategies to reduce crime in the community.

Food and retail

UNSW undertook an extensive consultation process during 2011-12 that informed the development of a new retail master plan for the campus. The process clearly demonstrated the need for greater choice, diversity and value for money from retail food and service outlets on campus.

New and refurbished retail precincts have been opened across the lower, middle and upper campus with a number of leading independent and national retailers offering high quality, variety and convenience for staff and students. A new cafe and art supply retailer was also secured for the new COFA campus.



UNSW welcomes light rail

The new mass transport system linking the Sydney CBD with Randwick via Central is one of the most significant pieces of infrastructure supporting UNSW in its 60-plus years of operation.

Announced as part of the NSW Transport Master Plan, the South East Light Rail will include stops at major sites including the Sydney Cricket Ground, Sydney Football Stadium, Moore Park, the Royal Randwick Racecourse and the four major Randwick hospitals.

Even though it has the state's largest campus, UNSW is the only university in Sydney without rail access.

Sustainability

The light rail will be an important initiative to boost

the sustainability of the Kensington campus.

In addition to our research into sustainability, we are committed to incorporating environmental sustainability into our operations, for example by offsetting carbon emissions in our meeting rooms and pursuing a green lab program.

We have undertaken several initiatives to reduce the amount of waste to landfill, including recycling, improving our e-waste collection, a furniture reuse program and a pilot food waste segregation program.

As a result of these initiatives, UNSW saw its recycling rate increase to an impressive average 82% of its general waste, excluding hard waste from skips.

More than eight out of every 10 respondents (86%) to the UNSW Staff Aspiration Survey reported feeling proud to work at UNSW and 78% felt a sense of loyalty and commitment to the university – both well above higher education and industry benchmarks.



Work culture

Improving the performance and development of staff is a major priority for the University and programs continue to be rolled out, including an external review of the implementation of talent and succession planning for key positions in Faculties and Schools.

The inaugural Head of School leadership forum, which ran in June, highlighted many areas in which this important role could be enhanced. A project to implement the major initiatives will be implemented in 2013.

Our project to reduce time lost to injuries is on target, with the rate halved since 2006. Safety indicators such as hazard reporting, corrective actions and training are all ahead of target. We are also implementing an enhanced service delivery model to support Faculties in meeting their human resources needs.

Workplace diversity

An Academic Women's Employment Strategy included development of Faculty Gender Equity Plans to address issues specific to individual faculties, as well as ongoing central initiatives such as the Academic Women in Leadership program.



For the eighth consecutive year, UNSW was recognised as an Employer of Choice for its initiatives to support and advance women in the workplace. Initiatives developed under our gender equity program include the Academic Women in Leadership scheme, the Vice-Chancellor's Child Care Travel Fund and the Career Advancement Fund.



Home away from home for students

A two-year, \$110 million redevelopment of UNSW's residential colleges will see a major expansion in affordable, high-quality campus accommodation for students.

The project comprises five colleges, including replacement and expanded colleges for Basser, Goldstein and Baxter, plus a new fourth college designed to cater for Muslim students and a fifth Seniors Hall college for non-first year students. The colleges will be completed progressively over late 2013 and early 2014, ready for occupancy prior to the start of the 2014 academic year.

UNSW currently offers more student beds than any other university in NSW, and when the new colleges

open we will have more than doubled our on-campus capacity in four years. The past two years have seen the opening of the 1000-bed UNSW Village and the 319-bed New College Village. Another self-catered complex providing 398 beds at Gate 2, High Street, is under construction, due to open in early 2013.

"We recognise the significant unmet demand for 'full service' accommodation on campus," says Vice-President, University Services, Neil Morris.

"UNSW is located in one of Australia's most expensive residential areas. We are very conscious of the need to provide affordable, high-quality campus accommodation for our students."

Executive Team (as at December 2012)

President and Vice-Chancellor
Professor Frederick G. Hilmer AO
LLB Syd, LLM Pennsylvania, MBA
Wharton, FCPA

Vice-President and Deputy Vice-Chancellor (Academic)
Professor Iain Martin
MBCChB(Hons), MEd(Dist), MD Leeds

Vice-President and Deputy Vice-Chancellor (Research)
Professor Les Field AM
BSc, PhD, DSc Syd, FAA, FRACI

President, Academic Board
Professor Prem Ramburuth
BA, DipEd South Africa, MEd Syd,
EdD UNSW, Licentiate RAM, London,
GradDipEd, TESOL South Australia,
MAICD

Vice-President, Finance and Operations
Mr Jonathan Blakeman
BCom, Dip (LGA) Auckland,
MPP Well, CA

Vice-President, Advancement
Ms Jennie Lang
BA BEd (Dist.) MEd N'cle NSW

Vice-President, University Services
Mr Neil Morris
BA N'cle NSW, TGM INSEAD

Dean, Faculty of Law
Professor David Dixon
BA Camb, BPhil Hull, PhD Wales

Dean, Faculty of Science
Professor Merlin Crossley
BSc (Hons) Melb, DPhil Oxon

Senior Officers

Pro Vice-Chancellor (Research)
Professor Mark Hoffman
BMechEng (Hons), PhD Syd, MBT UNSW

Pro Vice-Chancellor (Research Training)

Professor Laura Poole-Warren
BSc (Hons), PhD UNSW

Pro Vice-Chancellor (International)

Ms Fiona Docherty
MA (Hons) Glasgow

Pro Vice-Chancellor (Students)

Professor Wai Fong Chua AM
BA (Hons) PhD Sheffield, FCPA, FCA,
GAICD

Senior management appointments

Professor Iain Martin was appointed Deputy Vice-Chancellor (Academic) following the retirement of Professor Richard Henry.

Pro Vice-Chancellor (International) Ms Jennie Lang was appointed to a new executive position of Vice-President, Advancement, heading up a new division, following the retirement of the Chief Executive of the UNSW Foundation, Ms Jennifer Bott.

Ms Fiona Docherty was appointed as the new Pro Vice-Chancellor (International).

Professor Mark Hoffman was appointed Pro Vice-Chancellor (Research); Professor Laura Poole-Warren was appointed Pro Vice-Chancellor (Research Training) in addition to her role of Dean of Graduate Research.

Vice-Chancellor's Advisory Committee

The key advisory body for the Vice-Chancellor meets fortnightly and comprises the Executive Team, Deans and Senior Officers.

Deans

Dean of Graduate Research
Professor Laura Poole-Warren
BSc (Hons), PhD UNSW

Faculty of Arts and Social Sciences

Professor James Donald
BA Oxon, PGCE DipEd MSc London, PhD
Open University

Faculty of Built Environment

Professor Alec Tzannes
BSc (Arch) BArch Syd, MSc Columbia,
Hon. AIA, Hon. MRAIC, Hon. FNZIA,
LFRAIA

Australian School of Business

Professor Alec Cameron
BSc BE Syd, DPhil Oxon, MS (MgmtTech)
Polytech Univ NY, FAICD

Faculty of Engineering

Professor Graham Davies
BSc PhD DSc Wales, CEng, FIET, FlnstP,
FIOM3, FIEAust, FREng

College of Fine Arts

Professor Ian Howard
DipArtEd AMCAE, GradDip Film/TV
Middlesex, MFA C'dia

Faculty of Law

Professor David Dixon
BA Camb, BPhil Hull, PhD Wales

Faculty of Medicine

Professor Peter Smith
RFD MD Qld, FRACP, FRCPA, FAICD

Faculty of Science

Professor Merlin Crossley
BSc (Hons) Melb, DPhil Oxon

UNSW Canberra

Professor Michael Frater (Rector)
BSc BE Syd, MEd UNSW, PhD ANU,
MIEEE, FIEAust

Research & Teaching Awards

Major research prizes and fellowships awarded in 2012:

Fellowship of the Australian Academy of Technological Science and Engineering

- > Prof Rose Amal, School of Chemical Engineering
- > Prof Branko Celler, School of Electrical Engineering and Telecommunications (Visiting Prof)
- > Prof Klaus Schindhelm, Graduate School of Biomedical Engineering

Awarded Officer of the Order of Australia (AO)

Prof David St Clair Black FAA, School of Chemistry

Awarded Member of the Order of Australia (AM)

- > Prof Martin Green FAA, School of Photovoltaic and Renewable Energy Engineering
- > Prof Joseph Forgas, School of Psychology

NSW Science and Engineering Awards

Excellence in Mathematics, Earth Sciences, Chemistry, Physics and Astronomy (tie): Prof Matthew England, Climate Change Research Centre, and Prof Chris Tinney, School of Physics

Excellence in Biological Sciences (Plant, Agriculture and Environment) (tie):

A/Prof Emma Johnston, School of Biological, Earth and Environmental Sciences, and A/Prof Angela Moles, School of Biological, Earth and Environmental Sciences

Excellence in Engineering and Information and Communications Technologies:

Prof Andrew Dzurak, School of Electrical Engineering and Telecommunications

The Australian Innovation Challenge

Overall winner: Prof Veena Sahajwalla FTSE, School of Materials Science and Engineering

Australian Museum Eureka Prizes

Commercialisation of Innovation

category: Digitalcore, Digitalcore Pty Ltd, ANU and UNSW

Promoting Understanding of Australian Science Research category: Dr Rob Brander, School of Biological, Earth and Environmental Sciences

Scientific Research category: Prof John Webb, Prof Victor Flambaum, Dr Julian King and Dr Julian Berengut, School of Physics (with A/Prof Michael Murphy, Swinburne University of Technology)

ACT Young Tall Poppy of the Year

Dr John Young, School of Engineering and Information Technology, UNSW Canberra

NSW Young Tall Poppy Awards

- > Dr Alexandra Campbell, Centre for Marine Bio-innovation
- > A/Prof Thomas Denson, School of Psychology
- > Dr Rita Henderson, UNSW Water Research Centre
- > Dr Lee-Fay Low, School of Psychiatry
- > Dr Katherine Mills, National Drug and Alcohol Research Centre
- > Dr Stephen Redmond, Graduate School of Biomedical Engineering

CINSW Premier's Award for Excellence in Translational Cancer Research

Profs Michelle Haber AM, Glenn Marshall and Murray Norris, CCIA

Scopus Young Researcher of the Year

Life Sciences & Biological Sciences

category: Dr Michael Kasumovic, School of Biological, Earth and Environmental Sciences

Engineering & Technology category:

Dr Cyrille Boyer, School of Chemical Engineering and Centre for Advanced Macromolecular Design

Australian Collaborative Innovation Awards

Mining & Energy category: Profs Martin Green and Stuart Wenham, ARC Photovoltaics Centre of Excellence (in collaboration with Suntech Power)

Manufacturing category: Prof Veena Sahajwalla, School of Materials Science and Engineering (in collaboration with OneSteel)

2012 Thompson Reuters Award for Most Innovative University in Australia

Teaching Honours

Office of Learning & Teaching

Award for Teaching Excellence: A/Prof Gangadhara Prusty

Award for Programs that Enhance Learning: The ASPIRE Program

Citations for Outstanding Contributions to Student Learning: UNSW Japanese Studies Team; Dr Patsie Polly and Ms Gwyn Jones

Vice-Chancellor's Awards for Teaching Excellence

General Category

- > Dr Chinthaka Balasooriya, School of Public Health and Community Medicine
- > The Japanese Studies Team, School of International Studies
- > A/Prof Sami Kara, School of Mechanical and Manufacturing Engineering
- > A/Prof Alistair Poore, School of Biological, Earth and Environmental Sciences
- > Dr Chris Tisdell, School of Mathematics and Statistics
- > Ms Judith Watson, School of Economics

Postgraduate Research Supervision

- > A/Prof Andrew Brown, School of Biotechnology and Biomolecular Sciences
- > A/Prof Emma Johnston, School of Biological, Earth and Environmental Sciences
- > A/Prof Nagarajan Valanoor, School of Materials Science and Engineering

Sessional Teaching

- > Mr Krishna Dermawan, School of Management
- > Mr Gee Chong Ling, School of Biotechnology and Biomolecular Sciences

Initiatives that Enhance Learning

- > Mr John Cowan, Construction Management
- > Dr Mark Hill, School of Medical Sciences
- > Prof Gernot Heiser and Dr Kevin Elphinstone, School of Computer Science and Engineering
- > Dr Patsie Polly and Ms Gwyn Jones, School of Medical Sciences

UNSW is Australia's leading university focused on science, technology and the professions, and a peer of the best internationally.

Our motto – Manu et Mente, “with hand and mind” – encapsulates UNSW's commitment to research that has relevance and impact, to teaching that produces graduates prepared for work, and to deep engagement with the communities we serve.

Distinguished by our progressive spirit, our priority is to nurture ideas and skills and generate intellectual growth, economic prosperity and social development.

We celebrate the diversity of backgrounds and cultures from which we draw students of the highest potential. We are proudly a university of our region, with a long engagement in the Asia-Pacific.

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Many departments of the University operate beyond standard business hours.

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Produced by the
UNSW Media Office

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ISSN 0726-8459 Volume 1
CRICOS Provider 00098G