

2006 ANNUAL REPORT



Federation Fellow and climate
change researcher Professor
Matthew England

SCIENTIA MANU ET MENTE

**KNOWLEDGE
BY HAND
AND MIND**

THE UNIVERSITY'S MOTTO ENCAPSULATES
ITS CENTRAL PHILOSOPHY OF BALANCING
THE PRACTICAL AND THE SCHOLARLY

2006 ANNUAL REPORT – VOLUME ONE

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The University of New South Wales
Sydney NSW 2052

April 2007

The Honourable John Della Bosca MLC
Minister for Education and Training
Level 30 Governor Macquarie Tower
1 Farrer Place
Sydney NSW 2000

Dear Minister

In accordance with the *Annual Reports (Statutory Bodies) Act 1984*, the Council of The University of New South Wales has the honour to present the following report of the proceedings of the University for the year ended 31 December 2006.

Mr David Gonski AO
Chancellor

Professor Frederick Hilmer AO
Vice-Chancellor and President

FUNCTIONS

The University of New South Wales was incorporated by an Act of Parliament in NSW in 1949. Our functions include:

- a) the provision of education and research facilities of university standard
- b) aiding, by research and other suitable means, the advancement, development and practical application of science to industry and commerce
- c) the provision of instruction and the carrying out of research in the disciplines of human studies and medicine and in such other disciplines as Council may from time to time determine
- d) the conferring of the degrees of Bachelor, Master and Doctor and the awarding of diplomas and other certificates.

*University of New South Wales Act 1989,
Section 6(1)*

VISION

Our vision is to be Australia's leading international research university with a reputation for excellence in scholarship, learning and the student experience.

PURPOSE

- > To excel in research as a contribution to a productive and sustainable economy, the prosperity of our nation, the health and wellbeing of its people, and the protection of our environment.
- > To advance human knowledge through our research, teaching and scholarship, and our engagement with the community.
- > To contribute to the development, the wellbeing and stability of our region of South-East Asia through scholarship, collaboration, consultation, training and exchange.
- > To enable all our students to have an outstanding learning experience and to reach their full potential.
- > To be a dynamic point of contact for the lifelong learning and social engagement of our alumni.

AT A GLANCE



The University of New South Wales is one of Australia's leading international universities, renowned for research and teaching excellence and the quality of its graduates. We have close to 38,000 students enrolled in a comprehensive range of undergraduate and postgraduate programs, and 6000 staff working across two Sydney campuses (Kensington and the College of Fine Arts in Paddington), and the Australian Defence Force Academy (UNSW@ADFA) in Canberra. We are a founding member of the Group of Eight, representing Australia's leading research-intensive universities, and Universitas 21, an international alliance of leading universities. UNSW is consistently ranked as one of the premier universities in the Asian region and in the world's top 50. We are a major recipient of competitive research grants from government and industry.

KEY STATISTICS FOR 2006*

Student enrolments	37,836
Commencing enrolments	12,984
Student load (EFTSU)	25,123
Total staff (FTE)	5,280
Degrees and Diplomas awarded (2005)	9,832
Total alumni (1949–2005)	182,401
Faculties	8
Colleges (UNSW@ADFA)	1
Schools	75

STUDENTS

Level of program

Higher doctorate and PhD	2,358
Masters research and coursework	7,333
Bachelor degrees and diplomas	23,995
Grad diplomas, grad certificates and postgrad qualifying	2,787
Cross-institution and non-award	1,363

Gender

Female	17,526
Male	20,310

Residence status

Local	30,425
International	7,411

Campus

Kensington	33,486
College of Fine Arts (Paddington)	2,123
UNSW@ADFA (Canberra)	2,227

Faculty

Arts and Social Sciences	4,723
Built Environment	2,243
Business	8,368
College of Fine Arts	2,132
Engineering	6,494
Law	3,321
Medicine	2,742
Science	4,644
UNSW@ADFA	2,227
Other	942

STAFF

Type	Female	Male	Total
Academic	795	1504	2,300
General	1,676	1,304	2,980
Total	2,471	2,808	5,280

2006 FINANCIAL HIGHLIGHTS

(consolidated)

	\$m	%
REVENUE		
Federal Government	370	39
Student fees	201	21
Contract research and consultancy	61	6
Investment income	57	6
State, local and foreign government	25	3
Donations and bequests	7	1
Other revenue	226	24
Total revenue**	947	100

	\$m	%
EXPENDITURE		
Employee benefits	553	60
Contract services	86	9
Scholarships, grants and prizes	59	6
Depreciation	45	5
Other expenditure	182	20
Total expenditure**	925	100

Net operating result **\$22m**

Property, plant and equipment additions \$158m

*Enrolment and staff figures as at 31 March 2006 - totals may not balance due to rounding.

FTE – Full-time equivalent, EFTSU – Equivalent full-time student units

**Excludes deferred government superannuation contribution adjustments

THE CHANCELLOR'S REPORT



2006 was my first full year as Chancellor and I was pleased to welcome a number of new members to the UNSW Council and committees. The new appointments bring an exceptional depth of expertise that will strongly support the University's strategic direction.

Vice-Chancellor Professor Fred Hilmer commenced in June 2006 and he very quickly implemented a range of strategies focused on UNSW's key priorities for the next few years. Council welcomed the Vice-Chancellor's streamlined management structure and noted, in particular, the creation of a Chief Operating Officer position. Council also approved the integration of the Australian Graduate School of Management with the Faculty of Commerce and Economics, one of Professor Hilmer's first initiatives as incoming Vice-Chancellor.

The renewed focus on key areas of research, the student experience and community engagement was commended. The Council is fully engaged in working with the Vice-Chancellor to strengthen our position as a leading research university. UNSW has already begun to reap the benefits of Professor Hilmer's unique blend of corporate and academic expertise.

Council endorsed a number of important initiatives in 2006 including a new student organisation, formed in response to the Voluntary Student Unionism legislation, and considered options for expanding student housing on campus.

The ongoing refinement of our governance model was a major theme last year and much has been achieved in this key area. Council conducted a biannual review of its performance, structure, composition and terms of references of committees. The review highlighted the need to refocus Council deliberations from operational matters to issues of policy and strategy and a range of reforms were approved and implemented to improve the governance structure and reporting processes. The changes to membership of Council are detailed further in the report.

2006 was a significant year for campus development. The opening of the new Law Building in September by the Chief Justice of the High Court, the Hon Murray Gleeson AC, marked a key milestone in the transformation of the Kensington campus. It was my good fortune to be a student at the Law School in its early times and the new building is a tangible sign of the maturity and standing which the Faculty has achieved since its humble origins in 1971.

There are many people to thank for their efforts in 2006: the outgoing members of Council and its committees, UNSW's senior officers and the government officers who have assisted the University. I would particularly like to recognise the contribution of Professor Mark Wainwright AM who retired as Vice-Chancellor in June. Professor Wainwright was appointed as Vice-Chancellor in 2004 after a 30-year career at UNSW. He made a significant contribution to the University, and building and promoting its reputation was a hallmark of his term.

Other senior officers retiring in 2006 were Professor Robert King, who served as Deputy Vice-Chancellor (Academic) and Registrar, and Professor Adrian Lee, who served as Pro-Vice-Chancellor (Education and Quality Improvement). We offer them our most sincere thanks.

Our staff, both academic and general, are to be congratulated for what they have achieved in 2006. We are grateful to them in a year of considerable change.

Finally, I would also like to thank all the members of Council and the external members of Council committees for their work for the University, all of which is conducted on a voluntary basis.

Mr David Gonski AO
Chancellor

THE VICE-CHANCELLOR'S REPORT



The University made significant progress on a number of fronts in 2006.

Our research excellence was rewarded with a significant increase in external funding from competitive grants. Many of our most outstanding researchers were recognised with national and international honours, as you will see highlighted throughout the report.

The year ended with a major boost to our teaching profile. UNSW was ranked first for the quality of learning and teaching in business and law, under the Federal Government's Learning and Teaching Performance Fund, and was awarded \$6.65 million for 2007. This was the highest overall funding allocation in the state and one of the highest nationally.

Our international profile was also further strengthened, with new global alliances and a more strategic approach to engagement and recruitment in the region.

The governance and management of universities has been a major focus of debate in recent times and has been one of my priorities since joining UNSW as Vice-Chancellor in June. I have worked closely with the Chancellor and Council to more clearly delineate the management and governance functions.

A new organisational structure has been developed to meet the University's strategic and operational needs. It represents a more streamlined and contemporary approach to delivering core services.

A major imperative of these reforms has been to better support our strategic priorities, which are to boost research performance and enhance the student experience. The workplace changes have enabled the establishment of a Strategic Priorities Fund, to be allocated in 2007.

A review of our expenditure and financial systems has identified a number of areas where best practice could have a significant impact not only at UNSW but across the higher education sector. We were awarded a major funding package under the Federal Government's Workplace Productivity Program to implement new initiatives focused on cutting waste, leveraging purchasing power and improving financial processes.

The University continued to deal with the implications of the introduction of Voluntary Student Unionism (VSU) legislation. Funding to support a new federated student organisation was approved, as was the establishment of a new integrated sports body.

On the academic front, there were a number of significant developments in 2006.

A major initiative was the integration of the Australian Graduate School of Management and the Faculty of Commerce and Economics into the Faculty of Business. This will strengthen UNSW's position as a centre of excellence for business education and research in Australia and the Asia-Pacific region.

Enhancing the student experience was a major focus of our work last year and we are boosting our efforts to attract and retain the best and brightest students. We announced a new scholarship program for the state's brightest students, the Academic Achievement Awards.

We have very strong links with the professions and our graduates continue to be highly rated. This was confirmed in 2006, with UNSW graduates scoring the highest average starting salary in Australia and recording the highest employment rate in the state.

This is a time of significant change for the higher education sector and like all universities, UNSW faces a number of major challenges. I look forward to continuing to work with the UNSW community to achieve our strategic goals.

Professor Frederick Hilmer AO
Vice-Chancellor



UNSW consistently scores highly in a range of national and international rankings.

- > The University was ranked 41st in the world in the UK's *Times Higher Education Supplement* (THES) World University Rankings published in October 2006 and in *Newsweek's* top 100 global universities.
- > In the THES league table the Faculty of Engineering was ranked 18th in the world and in the world's top 100 by the Shanghai Jiao Tong University's Academic Ranking of World Universities.
- > Among Australian universities, UNSW was acknowledged as having the top performing engineering discipline in the Melbourne Institute's Discipline Ratings for Australian Universities, published in November. The University also rated highly in business and economics.
- > The *Financial Times* (UK) 2006 table of Executive MBA programs placed AGSM as Australia's leading business school with an international ranking of 23, an improvement of 12 places since 2005. AGSM is the only Australian business school featured in the rankings.
- > UNSW received the maximum five-star rating for eight performance indicators in the 2007 *Good Universities Guide*. It achieved a top score in the following categories: student demand, graduate starting salaries, research grants, research intensity, student-staff ratios, cultural diversity, gender balance, and international enrolments.

2006 HIGHLIGHTS



RESEARCH

- > UNSW recorded the best result of any university in the 2006 ARC Linkage grants rounds, receiving more than \$13 million.
- > The NHMRC awarded our researchers almost \$35 million in October, more than a quarter of the total awarded to NSW institutions. The funding included a \$14.5 million grant to a team from the Centre for Vascular Research.
- > Eight UNSW researchers were recognised with Australian Museum Eureka Prizes in four awards, more than any other participating institution.
- > The University was chosen to lead a multi-million dollar Federal Government initiative on dementia and the UNSW Brain Sciences Consortium was awarded \$4 million by the NSW Government.
- > The Social Policy Research Centre was awarded \$5.3 million for an assessment of the Commonwealth's strategy to assist vulnerable children and their families.

LEARNING AND TEACHING

- > UNSW topped the rankings for the quality of learning and teaching in business and law, under the Federal Government's Learning and Teaching Performance Fund. We were awarded \$6.65 million from the fund for 2007, the highest allocation in the state.
- > We were awarded nine out of a maximum 10 citations from the Carrick Institute for Learning and Teaching in Higher Education. In total 17 academics were honoured.
- > UNSW became the first Australian university to win entry into the Carnegie Foundation's Institutional Leadership Program.
- > We significantly boosted student scholarships, announcing a new award for the state's brightest students.

- > UNSW graduates scored the highest average starting salary in Australia at \$47,000 for all undergraduates under 25. Our graduates also recorded the highest employment rate in the state at 89 percent.

INTERNATIONAL ENGAGEMENT

- > UNSW again set the benchmark for successfully exporting international education, winning the education category of the 2006 Trailblazers Awards.
- > In 2006 we welcomed more than 9000 international students from 130 countries, maintaining one of the most diverse student cohorts of any university in the world.
- > UNSW became the first Australian university to establish a company in India dedicated to developing commercial and research partnerships, and student and staff exchange.
- > Advances in planning for the opening of UNSW Asia in Singapore were made. Applications for undergraduate programs opened in January 2006 and academic and general staff were recruited.

COMMUNITY ENGAGEMENT

- > There were 57 new endowed and beneficial funds created in the UNSW Foundation, which assumed responsibility for all alumni and development activities.
- > UNSW Chancellor David Gonski became the Chair of the Foundation Board and a significant number of new Board members were appointed.
- > The Foundation reported \$5.6 million in donations. The largest single gift, of \$1.5 million, was from Dr Zhengrong Shi, alumnus and Chairman of Suntech Power, for research in photovoltaics. Another significant gift was made by electronics firm Jaycar.

- > A new entity, the John Lewis & Pamela Lightfoot Trust, was established to support a core program of scholarships to benefit Indigenous students.
- > The UNSW Alumni Association presented four awards to graduates for their outstanding contributions to their profession and community.
- > The University hosted a successful program of public lectures, conferences, art and cultural exhibitions, and events.

OPERATIONS AND FINANCIAL MANAGEMENT

- > There were key building completions in the North Mall Development Zone, with the opening of the Law Building and Analytical Centre, and refurbishment of the Dalton Building.
- > Enterprise agreements for academic and general staff were negotiated and UNSW received an Employer of Choice for Women citation from the Federal Government's Equal Opportunity for Women in the Workplace Agency.
- > The University successfully implemented a range of sustainability initiatives, such as a water saving action plan, Green Star ratings for new buildings and construction of a percolation pit for stormwater collection.
- > A new student organisation, Arc@UNSW, was formed following the introduction of the Voluntary Student Unionism legislation.
- > UNSW was awarded \$3.7 million under the Federal Government's Workplace Productivity Program for initiatives to improve the University's financial productivity and performance.
- > A University-wide procurement review identified opportunities for greater efficiencies and savings.

GET THE PICTURE



STUDENT GALLERY

The outstanding success of many of our best art and design students has been recognised with prestigious scholarships, awards and industry accolades. Here is just a small selection of UNSW's highest achievers in 2006.

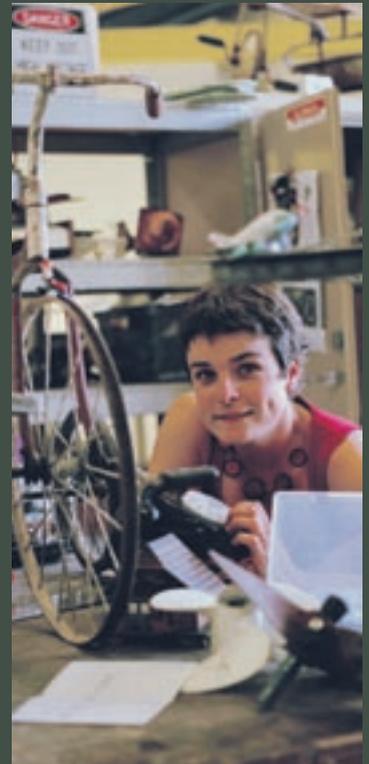
Monica Behrens' work was featured in *Primavera*, the MCA's annual exhibition unveiling new talent from across Australia.



Industrial design graduate Tricia Ho won the Gold Australian Design Student Award for her ergonomic violin.



Masters of Fine Arts student Todd McMillan won the 2006 Helen Lempriere Travelling Art Scholarship. Pictured: *Waiting despite/to spite myself* (self-portrait), courtesy GRANTPIRRIE.



MFA student Sandra Landolt in her sculpture studio. She is the first student to undertake a residency at the Environmental Research Institute for Art.

MFA graduate Shaun Gladwell has been selected to exhibit in the 52nd International Art Exhibition at the Venice Biennale. Pictured *Pataphysical Man*. Courtesy of the artist and Sherman Galleries.



Hannah Grace was the winner of the inaugural Dinosaur Designs award at the COFA Annual Graduate show for her work *Circle of Life*.

Julie Frost won the Bronze Australian Design Student Award for her water purifier and storage unit.

COFA PhD candidate Vanila Netto won the 2006 Archibald Photographic Portrait Prize for *The magnanimous beige wrap part 1 – (contraption)*. Courtesy of the artist and Sherman Galleries.

RESEARCH SNAPSHOTS



QUANTUM LEAP

Professor Michelle Simmons and colleagues received the University's largest ARC Discovery grant for 2006 – \$895,000 – for groundbreaking work on atomic-scale silicon devices. “The ultimate aim is to make a quantum computer,” said Professor Simmons. “This requires an immense effort.”

A program manager at the ARC Centre for Quantum Computer Technology, Professor Simmons has been recognised with a prestigious Federation Fellowship and an Australian Academy of Science Pawsey Medal for excellence in physics. In March 2006, she was also elected a Fellow of the Australian Academy of Science, making her at 38 one of the youngest scientists ever to join the elite ranks of Australian researchers.

Professor Simmons' team builds minute electronic devices atom by atom with extreme precision inside a state-of-the-art machine called a scanning tunnelling microscope. One of the puzzles that her research group has recently solved is how to create devices that can operate outside the microscope in the real world. They are now at the stage of creating prototypes.

In addition to grants from the ARC and the United States Government, Professor Simmons last year won funding from the Semiconductor Research Corporation in the US – the major body that oversees university linkage with organisations such as Intel and IBM.

Professor Wenham became the first Australian to win a prestigious World Technology Award



^ LEADERS IN SOLAR ENERGY

Professors Martin Green and Stuart Wenham from the Faculty of Engineering were ranked among the world's best inventors in the 2006 European Inventor of the Year Awards. It was a year notable for accolades for the developers of the world's most efficient solar cells, who are both directors of the ARC Centre of Excellence for Advanced Silicon Photovoltaics and Photonics at UNSW.

In May, Professor Green was awarded an ARC Federation Fellowship, making him one of the first researchers to receive the honour for the second time. He will lead research to develop a new generation of silicon solar cells that is expected to reduce considerably the costs of generating electricity from sunlight.

In November, Professor Wenham became the first Australian to win a prestigious World Technology Award. The awards are judged by peers and recognise innovative work of long-term significance. "I think the award emphasises the importance now being given internationally to renewable energy technologies, and more specifically photovoltaics, as an important and viable energy source for our planet for the future," Professor Wenham said.

"I would like to acknowledge the team of world-class researchers in our Centre who have made our achievements possible and also our industry collaborators such as Suntech Power, CSG Solar and BP Solar for their work in commercialising our various technologies."



^ **BRAINS TRUST**

The UNSW Brain Sciences Consortium was awarded \$4 million from the NSW Government in May 2006 for a range of initiatives that will benefit people with depression, anxiety and schizophrenia.

The initiatives include new brain-imaging technology; funding for the clinical assessment and management of mood disorders; evaluating a radical new anxiety treatment approach; and the establishment of Australia's first Professorial Chair of schizophrenia research.

It is just one of a number of major funding boosts received by the Consortium since it was established in 2005 to facilitate multidisciplinary research opportunities in neuroscience, psychiatry, psychology and neurology. It involves researchers from the Faculties of Science and Medicine, Prince of Wales Medical Research Institute, the Black Dog Institute and the Garvan Institute of Medical Research.

The Convenor of the Brain Sciences Consortium and head of Psychiatry at UNSW, Professor Philip Mitchell, said the funding package recognised the University's strengths in mental health research. "There is a palpable excitement about the neurosciences at the moment, and we are at the forefront of that," he said.

THE RACE AGAINST TIME

One hundred years after the first description of Alzheimer's disease, a landmark paper on the prevalence of this and other forms of dementia was published in *The Lancet* in February 2006. UNSW Professor of Psychogeriatrics, Henry Brodaty, was one of the paper's international authors. It finds that the number of people affected by dementia will double every 20 years to 81.1 million worldwide by 2040.

Professor Brodaty and other UNSW researchers, including Perminder Sachdev, Tony Broe and Brian Draper, were awarded a \$5 million NHMRC grant to study healthy ageing. The five-year project will examine how lifestyle, social interaction, diet, exercise and other factors influence the way people age, both physically and mentally.

CLIMATE CHANGE

One of UNSW's research strengths is in the key area of climate change and sustainable development.

Professor Matthew England, of the UNSW School of Mathematics and Statistics, holds a distinguished ARC Federation Fellowship and is internationally known in climate change research, especially in understanding its effects and drivers in the neglected Southern Hemisphere.

"Climate change is rapidly becoming one of the highest priority areas for research on all continents, and we aim to be Australia's best university in this vital field," Professor England said.

A new climate change research centre is being established at UNSW, with a \$6 million funding boost. Professor England will be a co-director with renowned climate scientist Professor Andy Pitman.

A key focus for the new centre is to better understand why Australia's most populated region, the east coast, has suffered such significant declines in rainfall in recent decades.

"We recently had a roundtable of Australia's leading climate change researchers and this emerged as the biggest unknown issue among the many major changes in rainfall patterns across Australia in recent decades."

The centre will bring together some 60 academics across the University in an integrated research program addressing all aspects of climate change, from its causes to its impact on communities, public health, the law, the built environment and the economy.

It will also become the focal point for a diverse national network of researchers from universities and major government research groups – including ANSTO, CSIRO, Bureau of Meteorology and Australian Antarctic Division – known as the ARC Research Network for Earth System Science.



^ **ACCELERATED LEARNING LAB**

2006 saw the launch of the Australian Graduate School of Management's Accelerated Learning Laboratory (ALL), designed to build senior executives' leadership skills through a combination of simulations, case studies and role-plays.

ALL is a collaborative venture between UNSW's graduate business school, the School of Psychology of the University of Sydney, and industry partners IAG, ANZ, Brambles, Qantas, Macquarie Bank, Egon Zehnder International and Booz Allen Hamilton.

It was established to develop "new frontier" approaches to finding ways to fast-track emerging leaders. The project was awarded \$2.1 million in the 2006 round of ARC Linkage grants. This supplements the \$1.5 million in direct financial support and \$4.8 million in kind committed by the industry partners.

"This is a very exciting collaboration between academia and the business community and directly addresses the key business challenge of developing and retaining top management talent," said ALL's director, Professor Robert Wood.

It is anticipated that the lab, which combines extensive research with the latest tools and methodologies for executive learning, will result in groundbreaking intellectual property and outcomes with the potential to revolutionise current thinking on management education.

Professor Wood, of the AGSM in the Faculty of Business, was appointed a Fellow of the Academy of Social Sciences in Australia in December. The award recognises his outstanding contribution to management research and education.

CINEMA IN THE ROUND

During September 2006, UNSW's iCinema Centre for Interactive Research showcased new computer and filmmaking technologies to government, industry, academics and the media. The Centre demonstrated the capacity to create interactive "immersive" cinema experiences that will change the way audiences view and relate to movies in the future.

"Interactive cinema is a form of cinema that combines all forms of media – voice, video, music, text, images and animation – so that people can create their own cinematic experience," said iCinema's co-founder and director, Professor Jeffrey Shaw. "It plunges audiences into an 'immersive reality' where there are no barriers between the virtual and the physical, and where narrative is created spontaneously and cooperatively."

iCinema's showpiece is AVIE, a 120 square metre circular screen that surrounds the audience and provides the backdrop for three-dimensional immersive cinema experiences, driven by six computers, 12 high-resolution digital video projectors and a 26-channel spatialised audio system.

One of the Centre's installations is *Place-Hampi*, a virtual heritage project which was awarded a \$520,000 ARC Linkage grant in 2006. The work recreates the UNESCO World Heritage site of Hampi, India, in digital form using stereoscopic panoramic photography and computer animation technology.

The iCinema Centre for Interactive Cinema Research is a joint venture of the College of Fine Arts and the School of Computer Science and Engineering.

Interactive cinema is a form of cinema that **combines** all forms of media – voice, video, music, text, images and animation





UNSW
THE UNIVERSITY OF NEW SOUTH WALES

GOVERNANCE AND MANAGEMENT



The governance and management of universities has come under increasing scrutiny and UNSW is committed to demonstrating the highest standards. In 2006 the University implemented a series of reforms to its reporting processes and structures that have resulted in more streamlined and strategic decision-making and a clearer demarcation between the role of the UNSW Council and the executive.

GOVERNANCE University Council

The Council is the University's governing body and is constituted in accordance with the provisions of the *University of New South Wales Act 1989*. It is responsible for acting on the University's behalf to promote its objectives and interests. The Council has 22 members: three official members (Chancellor, Vice-Chancellor and President of the Academic Board); six ministerial appointments; 11 elected members – staff, students and graduates; and two additional members appointed by Council.

There were a number of changes to the composition of the Council in 2006, following elections and new ministerial appointments.

Ms Gabrielle Upton's two-year term as Deputy Chancellor commenced on 1 January. Professor Branko Celler resigned from his position as one of the elected academic staff members in February, in order to pursue his interests in a start-up company arising from his research. Council approved Academic Board's nomination of Dr Chris Daly to fill the unexpired balance of Professor Celler's term. This expired on 30 June, along with the terms of Mr John Pascoe, the Hon Peter Primrose MLC, Dr Jessica Milner-Davis, Dr Penny FitzGerald, Mr Alan Egan and Mr Nicholas Carney.

New members of Council from 1 July were Scientia Professor Mark Bradford, Mr Matthew Grounds, Mr Wallace (Wal) King AO, Dr Tina Clifton, Mr Darren Challis, Ms Jennifer Till and Ms Kirstin Hunter. The ministerial appointments of Mr Grounds and Mr King, and reappointments of Mr Peter Mason AM, the Hon Susan Ryan AO, Mr Paul Pearce MP and Ms Jillian Segal AM, were made on the

recommendation of Council in accordance with the new procedures introduced by amendment of the University's By-law in 2005.

The Council met six times last year. A full list of Council members is on page 20.

Governance reforms

In 2006 Council adopted a number of reforms to its processes and clarified the demarcation between governance and management.

- > Reforms to Council's committee structure designed to improve focus on strategy and policy were approved and implemented. The number of committees was reduced from eight to six, with the abolition of the Chancellor's Committee and the Building and Grounds Committee.
- > In accordance with the National Governance Protocols, the schedule of progress on compliance was monitored. During 2006 Council focused on the continued development of matters relating to systematic reporting on the management and performance of controlled entities through its Finance Committee, risk management, and Council membership and expertise.
- > Changes to the UNSW Register of Delegations approved as part of the review process streamlined reporting requirements of operational matters to Council and its committees. Management will handle operational details currently referred to Council committees wherever possible,

and management will ensure that appropriate procedures with probity oversight are in place.

- > A new meeting schedule for Council and its committees was adopted. Audit and Finance Committee meetings are scheduled quarterly, with other committees meeting two to three times per year, in line with a more strategic focus.

Academic Board

The Academic Board is the principal academic body of the University, responsible for setting academic policy. It advises the Vice-Chancellor and the UNSW Council on matters relating to teaching, scholarship and research and takes decisions on delegation from Council.

In 2006 the Board introduced a range of new policies intended to simplify, improve and make more accountable the academic operations of UNSW. It recommended governance structures for faculties, new school names and amalgamations.

Approval was given for six new undergraduate programs, 13 postgraduate qualifications and two new doctorates. A wide range of programs and plans were revised, and three were discontinued. During 2006, the Board also reviewed its operations, membership and terms of reference of its committees.

MANAGEMENT

The Vice-Chancellor is responsible for the management of the University. The Vice-Chancellor leads the Executive Team, which shapes and implements the strategic directions for UNSW. The Vice-Chancellor's Advisory Committee (VCAC) comprises the Executive Team, Faculty Deans and Rector of UNSW@ADFA, the Dean of Graduate Research, and several other senior staff.

New organisational structure

In the second half of 2006 the University introduced a new organisational structure to more effectively meet the University's strategic and operational needs.

An Executive Team was established, comprising the Deputy Vice-Chancellor (Research), the redefined position of Deputy Vice-Chancellor (Academic), Deputy Vice-Chancellor (UNSW Asia), President of the Academic Board, Chief Financial Officer, and the newly created positions of Chief Operating Officer and Chief Executive of the UNSW Foundation. Faculty Deans and the Rector of UNSW@ADFA, as well as the head of Internal Audit, also report directly to the Vice-Chancellor.

Key academic functions were consolidated under the Deputy Vice-Chancellor (Academic) and key operational functions under the Chief Operating Officer. The financial management portfolio was also strengthened. Many of the initiatives aimed at improving the University's financial systems are being supported by a \$3.7 million funding package from the Federal Government under its Workplace Productivity Program. The grant will also fund a review of the University's corporate structure, designed to reduce the number of corporate entities.

The University also moved to mainstream essential functions such as equity and diversity, with responsibility for staff matters in this area becoming part of Human Resources while services relating to students now falling under the portfolio of the Deputy Vice-Chancellor (Academic). In line with the major focus on improving the student learning experience a new position, Pro-Vice-Chancellor (Students) and Registrar was created under the Academic portfolio, and the position of Executive Director of UNSW International was upgraded to Pro-Vice-Chancellor (International).

To increase our level of community engagement the Vice-Chancellor commissioned a major review of the UNSW Foundation. Jennifer Bott was appointed as the Foundation's Chief Executive Officer in October, and the Chancellor, David Gonski, became the Chair of the Foundation Board. A significant number of new Board members have been appointed.

Faculty restructures > Business

A major University initiative in 2006 was the integration of the AGSM and the Faculty of Commerce and Economics into the Faculty of Business. The move is designed to further strengthen UNSW's reputation as a leader in business education and research in Australia and the region. The new Faculty was officially launched in November, after endorsement from the UNSW Council and Academic Board. Professor Alec Cameron, formerly Deputy Vice-Chancellor (Resources) was appointed as the inaugural Dean.

The opportunity to integrate AGSM and FCE arose when the joint venture between AGSM and the University of Sydney ended in early 2006. The joint venture agreement had expressly limited the capacity for collaboration between AGSM and FCE.

> Arts and Social Sciences

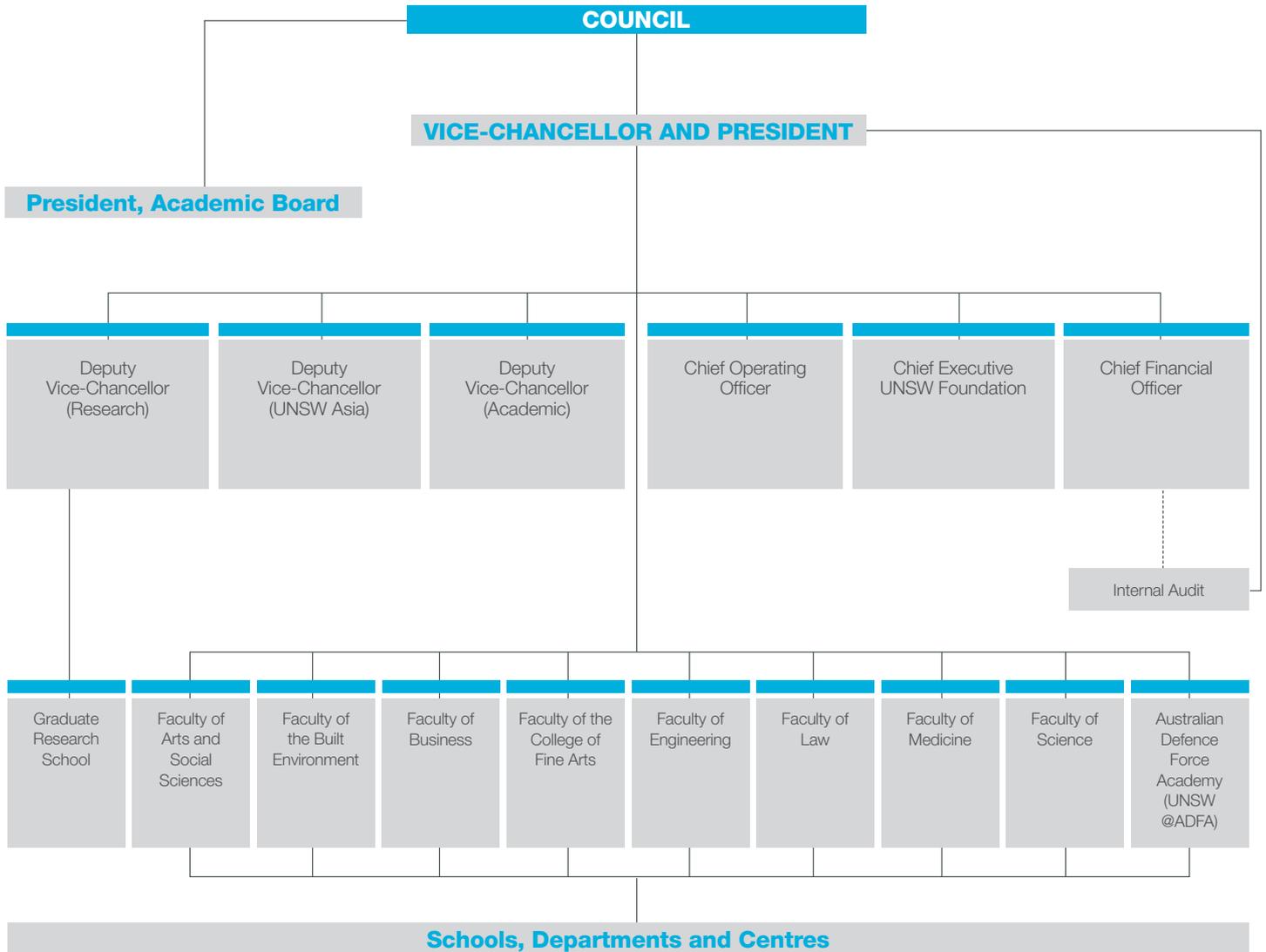
The Faculty of Arts and Social Sciences began a process of reorganising its academic and management structures in 2006, culminating in the creation of five new Schools: Education; English, Media and Performing Arts; History and Philosophy; Languages and Linguistics; and Social Sciences and International Studies. New Heads of School were appointed and work commenced on defining governance principles for the Faculty as a whole.

Risk management

The University has adopted more organisation-wide reporting on the identification and treatment not only of operational risks, but also of large project and strategic risks. This reflects our commitment to the comprehensive management of risk. Following the organisational restructure, the Risk Management Unit now reports directly to the Chief Financial Officer, a member of the Executive Team.

UNSW STRUCTURE ORGANISATIONAL CHART

As at 31 December 2006



UNSW COUNCIL

As at 31 December 2006

OFFICIAL MEMBERS

Mr David Gonski AO

BCom LLB *UNSW*, FAICD, FCPA
Chancellor

David Gonski is a professional company director and chairman, and a corporate advisor and consultant. He is currently Chairman of Investec Wentworth Pty Ltd, Coca-Cola Amatil Ltd and Investec Bank (Australia) Ltd. He is also a director of the ANZ Banking Group, the Westfield Group and Singapore Airlines Ltd. In 2006 he was appointed Chairman of the UNSW Foundation Board.

Professor Frederick Hilmer AO

LLB *Syd*, LLM *Pennsylvania*, MBA *Wharton*
Vice-Chancellor and President

Professor Hilmer was appointed Vice-Chancellor and President of UNSW in June 2006. Prior to this, he was Chief Executive Officer, John Fairfax Holdings Limited from 1998 to 2005. Before joining Fairfax he was Dean and Director of the Australian Graduate School of Management.

Professor Anthony Dooley

BSc PhD *ANU*
President of the Academic Board

Professor Dooley was elected President of the Academic Board in 2004. He is a former Deputy Board President, Head of the Department of Pure Mathematics, Presiding Member of the Faculty of Science and Presiding Member of the Committee on Research at UNSW.

MINISTERIAL APPOINTMENTS

Mr Peter Mason AM

BCom MBA *UNSW*

Peter Mason is currently Chairman of AMP Limited and Senior Advisor of UBS in Australia. He was Chairman and Chief Executive of Schroders Australia Limited. He is a former chairman and director of a number of public and private companies and institutions.

Mr Paul Pearce MP

MA *Syd*, LLB (Hons) *Lon*

Paul Pearce is a Member of the NSW Legislative Assembly. He was elected as the member for Coogee in March 2003. He was the Mayor of Waverley Council from 1997–2004.

The Hon Susan Ryan AO

BA *Syd*, MA *ANU*, AICD
Pro-Chancellor

Susan Ryan is the President of the Australian Institute of Superannuation Trustees. From 1975–1988 she was Senator for the ACT and held senior Cabinet posts in the Hawke Government including Minister for Education 1983–87.

Mr Matthew Grounds

BCom LLB *UNSW*

Matthew Grounds is joint head of investment banking at UBS in Australia. Prior to commencing a career in investment banking, he worked with law firm Clayton Utz.

Mr Wallace (Wal) King AO

BE MEngSc Hon DSc *UNSW*, Hon FIEAust,
CPEng, FAICD, FAIM, FAIB, FTSE

Wal King is Chief Executive of Leighton Holdings Ltd. He is a member of AGSM's Advisory Council and a former director of the Business Council of Australia. In 1999, Leighton made a \$2 million corporate gift to the building of The Scientia.

Ms Jillian Segal AM

BA LLB *UNSW*, LLM *Harvard*, FAICD

Jillian Segal is a professional company director, lawyer and consultant. She is a director of the Australian Stock Exchange and the National Australia Bank, and a member of the Australia Council's Major Performing Arts Board.

ELECTED MEMBERS GRADUATES

Ms Gabrielle Upton

BA LLB *UNSW*, MBA *NYU*, GAICD
Deputy Chancellor

Ms Upton is Legal Counsel at the Australian Institute of Company Directors. She is a member of the Federal Government's Corporations and Markets Advisory Committee. Prior to that she was an Assistant VP at Deutsche Bank in New York, and a banking lawyer at Freehills and Phillips Fox.

Mr Geoffrey Lawson OAM

BOptom *UNSW*, OAA

Mr Lawson graduated with a degree in Optometry from UNSW in 1984. At that time he was rated the best fast bowler in the world after successful series against England and the West Indies. He is a former director of the NRMA and the NSW Sports Federation.

Mr Darren Challis

BA LLB (Hons I) *Syd*, Grad Dip Legal
Practice *UTS*, MBA *AGSM*

Mr Challis was first elected to Council while completing his MBA at the AGSM. He has served as a Governor of the UNSW Alumni Association since 2002 and the AGSM Alumni Board. He works in the Sydney office of the global executive search firm, Egon Zehnder International.

Dr Christine (Tina) Clifton

MB BS (Hons) BHA *UNSW*

Dr Clifton is a registered medical practitioner. She was formerly a director of the Garvan Institute of Medical Research, the Victor Chang Cardiac Research Institute and St Vincent's Hospital. She has held various positions in the public and private health sectors, including CEO of the Sisters of Charity Health Service in NSW and Deputy CEO of the Northern Sydney Area Health Service.

ACADEMIC STAFF

Scientia Professor Mark Bradford

BSc BE PhD *Syd*, DSc *UNSW*, CEng, CPEng, FIEAust, MASCE, MIStructE

Professor Mark Bradford was awarded a DSc in 1998 for his work in structural engineering and mechanics. He was awarded a Federation Fellowship in 2004 and previously held an Australian Professorial Fellowship.

Professor Wai Fong Chua

BA (Hons) PhD *Sheff*, FCA, FCPA

Professor Wai Fong Chua was appointed Senior Associate Dean, Faculty of Business in 2006, after serving as Head of the School of Accounting from 2000. She was Director, UNSW Professorial Superannuation Trust Pty Ltd 1997–2001, and Presiding Member, Faculty of Commerce and Economics.

Scientia Professor Brien Holden OAM

BAppSc *Melb*, PhD *City Lond*

Professor Holden of the School of Optometry and Vision Science is Director of the Cooperative Research Centre for Eye Research and Technology. He is also the founder and Deputy CEO of the Vision Cooperative Research Centre.

Professor Joseph Wolfe

BSc *Qld*, BA *UNSW*, PhD *ANU*

Professor Wolfe has taught physics at UNSW since 1982 including undergraduate courses in general physics, electronics, thermal physics, biophysics, introductory relativity and quantum mechanics, and postgraduate courses in statistical mechanics and biophysics. He has received many awards including the UNSW Vice-Chancellor's Award for Teaching Excellence 2002.

NON-ACADEMIC STAFF

Ms Jennifer Till

BSc BA (Hons) *UNSW*

Jennifer Till is currently a project manager in the Faculty of Medicine. She has served on the executives of AdminNet, the NSW Branch of the Association for Tertiary Education Management (ATEM), and the UNSW Sports Association.

STUDENTS

Ms Kirstin Hunter

BA BSc (Med) *UNSW*
(undergraduate)

Kirstin Hunter is studying Graduate Law at UNSW. In 2005/06, she was the President of UNSW Source (formerly UNSW Union), the largest student organisation at UNSW. She is a former member of the Student Guild Council.

Ms Angela Barrett

BE (Hons) *UNSW*
(postgraduate)

Ms Barrett is in the second year of her PhD in chemical engineering. She is the Senior Resident Advisor at New College and a former member of the Student Guild Council. Ms Barrett has been active in marketing engineering, organising open days and visiting high schools to promote UNSW.

MEMBERS APPOINTED BY COUNCIL

Mr Brian Suttor

BCom *UNSW*, FCA, CPA

Brian Suttor has been a Partner in the Assurance Business Unit of Ernst & Young since 2002. He is a member of the NSW Council of the Institute of Chartered Accountants. He has been the Presiding Member of the Audit Committee since 1998.

Mr Terry Davis

Mr Davis is Managing Director of Coca-Cola Amatil Ltd. He has had a long association with the Advisory Board of the Faculty of Commerce and Economics, and is the coordinator of the Faculty's Meet the CEO program. He is a member of the Business Council of Australia and the Board of St George Bank.

OUTGOING MEMBERS

The University is very grateful to the outgoing members in 2006 and acknowledges their contributions over a number of years.

Professor Branko Celler was a member until 13 February

Professor Mark Wainwright was a member until 18 June

Mr John Pascoe was a member until 30 June

Mr Peter Primrose was a member until 30 June

Mr Alan Egan was a member until 30 June

Dr Penny FitzGerald was a member until 30 June

Dr Jessica Milner-Davis was a member until 30 June

Mr Nicholas Carney was a member until 30 June

COUNCIL COMMITTEES

The Chancellor and Deputy Chancellor are automatically members of all Council committees under clause 4 of the University's By-law, but do not exercise their right to attend in all cases. Practical arrangements are reflected below. Under clause 5(2) of the By-law, the Vice-Chancellor is also automatically a member of all Council committees, except that Council has determined, in accordance with clause 5(4) of the By-law, that the Vice-Chancellor shall not be a member of the Audit Committee but shall retain the right to attend as an observer.

Audit Committee

Mr Brian Suttor (Presiding Member)
Ms Gabrielle Upton, Deputy Chancellor
Ms Jillian Segal
Mr John Brown
Mr Greg Couttas

Finance Committee

Mr Peter Mason (Presiding Member)
Mr David Gonski, Chancellor
Ms Gabrielle Upton, Deputy Chancellor
Professor Fred Hilmer, Vice-Chancellor
Professor Anthony Dooley, President, Academic Board
Professor Wai Fong Chua
Mr Darren Challis
Mr Matthew Grounds
Mr Paul Pearce

Honorary Degrees Committee

Mr David Gonski, Chancellor (Presiding Member)
Ms Gabrielle Upton, Deputy Chancellor
Professor Fred Hilmer, Vice-Chancellor
Professor Anthony Dooley, President, Academic Board
Professor Ken Trotman (alternate Professor Ian Dawes)
Professor Maria Skyllas-Kazacos (alternate Professor John Gascoigne)
Mr Terry Davis
Two vacancies

Student Affairs Committee

Professor Joe Wolfe (Presiding Member)
Professor Richard Henry, Deputy Vice-Chancellor (Academic) (nominee of Vice-Chancellor)
Professor Anthony Dooley, President, Academic Board
Ms Kirstin Hunter (undergraduate)
Ms Angela Barrett (postgraduate)
Scientia Professor Brien Holden
Ms Jennifer Till

Risk Management Committee

The Hon Susan Ryan (Presiding Member)
Professor Fred Hilmer, Vice-Chancellor
Dr Ronald Cameron
Dr Dale Cooper
Ms Jillian Segal
Ms Kirstin Hunter

Nominations and Remuneration Committee

Mr Peter Mason (Presiding Member)
Mr David Gonski, Chancellor
Ms Gabrielle Upton, Deputy Chancellor
Professor Fred Hilmer, Vice-Chancellor
Professor Anthony Dooley, President, Academic Board
Mr Wallace (Wal) King

Outgoing members in 2006

Council acknowledged the contribution made to the University by Mr Jim Anderson, who retired from his position as an external member of the Audit Committee, and Ms Gabrielle Morrish and Ms Caroline Pidcock, external members of the former Building and Grounds Committee.

EXECUTIVE TEAM

As at 31 December 2006

Vice-Chancellor and President

Professor Frederick Hillmer AO
LLB Syd, LLM *Pennsylvania*, MBA *Wharton*

Before joining UNSW in 2006, Professor Hillmer was Chief Executive Officer of John Fairfax Holdings Ltd for seven years. He has chaired a number of major public bodies, including the Commonwealth Higher Education Council and the National Competition Policy Review Committee. From 1989 to 1998 he was Dean and Professor of Management at the AGSM.

Deputy Vice-Chancellor (Research)

Professor Les Field
BSc PhD Syd, FAA

Professor Field was appointed to the role in 2005. Previously Professor of Organic Chemistry at the University of Sydney, where other roles included Acting Pro-Vice-Chancellor (Research). He is a Fellow of the Australian Academy of Science and the Royal Australian Chemical Institute.

Chief Operating Officer

Mr Peter Graham
AssocDipBus *UWS*, PMD *HBS*, GAICD

Appointed to the role in 2006. Mr Graham is a former Chief Executive of Pacific Power and a former Director of Group Operations for John Fairfax Holdings Ltd. He is a graduate of the Australian Institute of Company Directors.

Deputy Vice-Chancellor (Academic)

Professor Richard Henry
MB BS Syd, MD DipClinEpi *N'cle NSW*, FRACP, MRACMA

Appointed to the role in 2006. Professor Henry served as Head of the School of Paediatrics and of the School of Women's and Children's Health at UNSW before becoming Acting Dean in the Faculty of Medicine and most recently Acting Pro-Vice-Chancellor (Education and Quality Improvement).

Chief Financial Officer

Mr Garry McLennan
BBus *UTS*, FCPA, GAICD, FFin

Before joining UNSW in 2005, Mr McLennan served in several senior executive positions in finance, information technology and treasury with the HSBC Group in Australasia. His most recent role at HSBC was Chief Operating Officer. He is a former director of the Australian Banking Industry Ombudsman Ltd and currently serves on the Board Audit Committee of the Carrick Institute.

Deputy Vice-Chancellor (UNSW Asia)

Professor Greg Whittred
BCom *Qld*, MEc *Syd*, PhD *UNSW*

Professor Whittred was appointed to the role in 2005. He was previously Dean of the University's Faculty of Commerce and Economics, and Professor of Accounting.

President, Academic Board

Professor Anthony Dooley
BSc PhD *ANU*

Professor Dooley was elected to the role in 2004. He is a former Deputy President of the Academic Board, Head of the Department of Pure Mathematics, Presiding Member of the Faculty of Science and Presiding Member of the Committee on Research at UNSW.

Chief Executive, UNSW Foundation

Ms Jennifer Bott
BA Syd, DipEd *N.E.*

Ms Bott joined the University in 2006 from the Australia Council for the Arts, where she was CEO. One of Australia's most prominent arts administrators and advisors, Ms Bott is a former General Manager of Musica Viva Australia and has also worked extensively in the field of international intercultural education.

FACULTIES AND SCHOOLS

As at 31 December 2006

ARTS AND SOCIAL SCIENCES

Dean: [Professor Annette Hamilton](#)

BA (Hons) MA (Hons) PhD Syd

- > Education
- > English, Media and Performing Arts
- > History and Philosophy
- > Languages and Linguistics
- > Social Sciences and International Studies

BUILT ENVIRONMENT

Dean: [Professor Peter Murphy](#)

BA (Hons) Syd, PhD Macq, MPIA, MIAG

BUSINESS (INCORPORATING THE FACULTY OF COMMERCE AND ECONOMICS AND AGSM)

Dean: [Professor Alec Cameron](#)

BSc BE Syd, DPhil Oxon, MS (MgmtTech) Polytech Univ NY, GAICD

- > AGSM
- > Accounting
- > Actuarial Studies
- > Banking and Finance
- > Business Law and Taxation
- > Economics
- > Information Systems, Technology and Management
- > Organisation and Management
- > Marketing (including Tourism and Hospitality Management)

COLLEGE OF FINE ARTS

Dean: [Professor Ian Howard](#)

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

- > Art
- > Art Education
- > Art History and Theory
- > COFA Online
- > Design Studies
- > Media Arts

ENGINEERING

Dean: [Professor Brendon Parker](#)

BSc (Eng), ARSM DIC PhD Lond, CPEng, FIM, FIEAust

- > Biomedical Engineering
- > Chemical Sciences and Engineering
- > Civil and Environmental Engineering
- > Computer Science and Engineering
- > Electrical Engineering and Telecommunications
- > Mechanical and Manufacturing Engineering
- > Mining Engineering
- > Petroleum Engineering
- > Photovoltaic and Renewable Energy Engineering
- > Surveying and Spatial Information Systems

MEDICINE

Dean: [Professor Peter Smith](#)

RFD MD Qld, FRACP, FRCPA

- > Medical Sciences
- > Psychiatry
- > Public Health and Community Medicine
- > Women's and Children's Health
- > Prince of Wales Clinical School
- > Rural Clinical School
- > St George Clinical School
- > St Vincent's Clinical School
- > South Western Sydney Clinical School

SCIENCE

Dean: [Professor Mike Archer](#)

BA (MCL) Princeton, PhD (Zool) W Aust

- > Aviation (Department)
- > Biological, Earth and Environmental Sciences
- > Biotechnology and Biomolecular Sciences
- > Chemistry
- > Materials Science and Engineering
- > Mathematics and Statistics
- > Optometry and Vision Science
- > Physics
- > Psychology
- > Safety Science

LAW

Dean: [Professor Leon Trakman](#)

BCom LLB Cape T, LLM SJD Harvard

- > Australian School of Taxation (Atax)
- > Law

AUSTRALIAN DEFENCE FORCE ACADEMY (UNSW@ADFA)

Rector: [Professor John Baird](#)

BSc (Hons), PhD ANU

- > Aerospace, Civil and Mechanical Engineering
- > Business
- > Humanities and Social Sciences
- > Information Technology and Electrical Engineering
- > Physical, Environmental and Mathematical Sciences

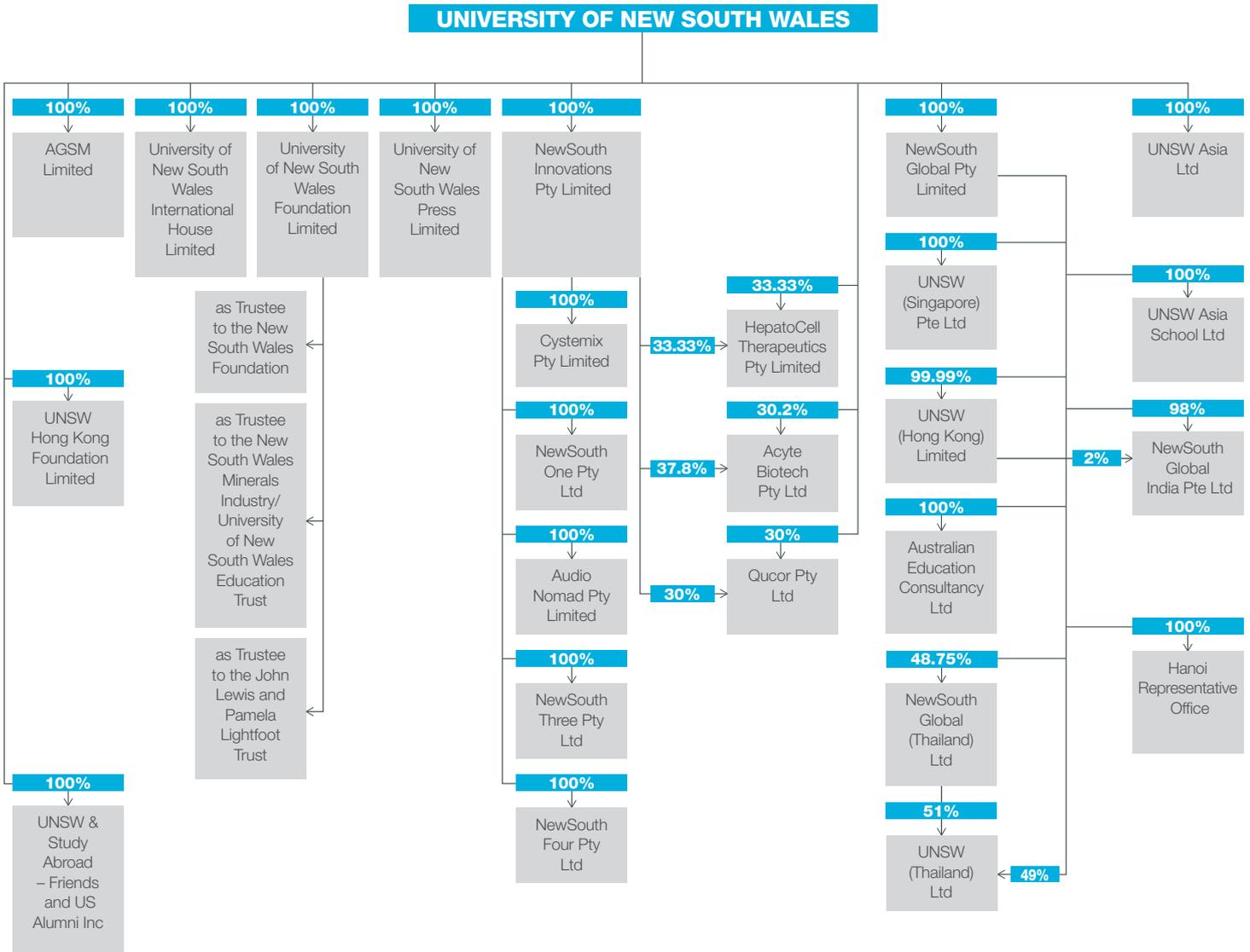
GRADUATE RESEARCH SCHOOL

Dean: [Professor Margaret Harding](#)

BSc (Hons) PhD DSc Syd

CONTROLLED ENTITIES

As at 31 December 2006





The team at UNSW's Water Research Laboratory are working to protect our marine environment by creating models for coastal structures that use fewer materials and protect the ocean from disastrous spills during storms and cyclones. The models, created by senior engineer James Carley (pictured) and his team, are site specific and thoroughly tested using a wave machine. For the past year the team has been working on structures associated with liquid natural gas infrastructure in Western Australia.

RESEARCH AND RESEARCH TRAINING



YEAR IN REVIEW

In 2006 we continued to build on our reputation as a leading international research university. Our research excellence was recognised with increased external funding from competitive grants and through national and international awards for many of our outstanding researchers. The level of collaboration with industry partners and external agencies was further boosted with the best result of any university in the 2006 Linkage grants round from the Australian Research Council. To maximise our research outcomes, we undertook a major benchmarking project that identified emerging areas of research concentration. We also focused on our research training capacity and implemented a number of initiatives to enhance the postgraduate research student experience.

RESEARCH EXCELLENCE

UNSW researchers excel in linking with industry and external partners to develop real solutions to key contemporary problems facing our world, from climate change and sustainability issues to medical research, social policy and the built environment. The University's collaborative and multidisciplinary research approach was a major factor in our achievements in 2006. UNSW's total external research income in 2006* was \$162 million – up \$23 million from the previous year.

Australian Research Council grants

In the two rounds of ARC Linkage grants for 2006, UNSW received more than \$13 million in funding, the best result of any university. The 42 projects brought with them contributions from industry partners of an additional \$17.6 million. UNSW also secured more than \$26 million in ARC Discovery grants. Discovery projects involve the pursuit of fundamental research to deepen our scientific and technical understanding of the world.

In grants announced in October, the University was awarded \$33 million, or a nine percent share of the ARC funding package. UNSW was awarded 79 Discovery Project grants, 23 Linkage Project grants, seven Linkage Infrastructure and Equipment grants, and two Linkage International Awards and Fellowships. We also won four of the 29 ARC Professorial Fellowships awarded nationally. The Faculties of Science, Engineering and Medicine won 78 of 102 available grants.

*subject to reconciliation

- > Two of the three largest Discovery grants were awarded to the School of Physics. A team led by Dr Adam Micolich won the University's largest Project grant of \$1.3 million for research that could lead to super-fast, low-powered transistors and powerful quantum computers.
- > UNSW's largest Linkage grant of almost \$1 million was awarded to A/Professor Jeffrey Braithwaite from the Centre for Clinical Governance Research in the Faculty of Medicine. His team is investigating the social and economic benefits of a more responsive and efficient health system.

National Health and Medical Research Council grants

The NHMRC awarded our researchers almost \$35 million in October, more than a quarter of the total awarded to NSW institutions. The funding includes a \$14.5 million five-year Program grant to a team from the Centre for Vascular Research, led by Professor Colin Chesterman. It is one of the largest and longest-running grants awarded by the Council. The study is investigating three areas of vascular biology that play a key role in cancer growth.

Two UNSW research teams were funded by the NHMRC to conduct urgent research into bird flu as part of Australia's defence against a potential pandemic. Professor Bill Rawlinson, who is based at the Prince of Wales Hospital, is heading a team that is investigating rapid, cost-effective improvements in diagnostics. Professor David Cooper, Director of the National Centre in HIV Epidemiology and Clinical Research, is the chief investigator of a study examining the effectiveness and safety of antivirals against pandemic influenza.

A significant amount of funding was received for work in brain sciences and ageing, which have been identified as areas of research concentration.

- > UNSW received two grants, totalling \$4 million over five years, to investigate ageing and productivity issues, jointly awarded by the NHMRC and ARC. UNSW was the only institution to receive more than one grant. Professor John Piggott, from the Faculty of Business, is heading up a project on the impact of longer working lives. Professor Perminder Sachdev from the School of Psychiatry is leading a team looking at the role of genes and environment in brain ageing.
- > UNSW was chosen to lead a multi-million dollar Federal Government initiative focused on dementia. Three Collaborative Research Centres are being established, with the primary centre to be based at the University, led by Professor Henry Brodaty.
- > The UNSW Brain Sciences Consortium was awarded \$4 million by the NSW Government for a range of initiatives covering new brain-imaging technology, clinical assessment and management of mood disorders, new treatment approaches for anxiety, and a new Professorial Chair in clinical schizophrenia research. The consortium includes researchers from the Faculties of Science and Medicine, Prince of Wales Medical Research Institute, the Black Dog Institute and the Garvan Institute of Medical Research.

Management

The Deputy Vice-Chancellor (Research), Professor Les Field, heads the division responsible for driving the strategic research direction and overall research performance of the University. In particular, the portfolio works to maintain and advance the University's profile in research and research training, as well as technology transfer. The division consists of Research Services, the Graduate Research School, NewSouth Innovations and the Analytical Centre.

“We are committed to delivering the research environment and world-class infrastructure that are needed to build on our recognised research strengths and attract the best researchers to undertake their work at UNSW.”

Professor Les Field, Deputy Vice-Chancellor (Research)

> A UNSW team working on a robotic hand was awarded one of only three multi-million dollar grants under the Federal Government's Thinking Systems initiative. The ARC and NHMRC awarded the cross-disciplinary team \$3.3 million over five years. The research involves neuroscientists, mathematicians, engineers, psychologists and robotics experts. The work could eventually produce a range of medical benefits including novel prosthetics and rehabilitation strategies for stroke patients.

Collaborative partnerships

UNSW academics have a successful record of winning grants for collaborative projects with a range of external organisations and governments in Australia and overseas. Grants awarded in 2006 included:

> Research scientists at UNSW@ADFA were a key part of a multi-million dollar agreement between Australia's Defence Science and Technology Organisation (DSTO) and the United States Air Force to advance research into high-speed flight, the Hypersonic International Flight Research Experimentation (HIFiRE) project. At more than US\$54 million, HIFiRE is one of the largest collaborative ventures to be undertaken between the two nations.

> The Social Policy Research Centre (SPRC) was awarded \$5.3 million to assess whether the Commonwealth Government is adequately assisting the needs of vulnerable children and their families. UNSW researchers, in partnership with the Australian Institute of Family Studies, are conducting a four-year national evaluation of the Stronger Families and Communities Strategy. This grant is the second phase of the government's evaluation process. The SPRC was previously awarded a grant to develop the national framework for the strategy.

> UNSW's Gifted Education Research Resource and Information Centre (GERRIC) won an international grant to investigate the under-usage of academic acceleration in Australian schools. The grant, worth \$500,000, comes from the John Templeton

Foundation of Pennsylvania, USA. Professor Miraca Gross, Director of GERRIC and Professor Karen Rogers are leading the investigation. Both are internationally recognised for their research on acceleration.

Research centres

UNSW is involved in close to 100 centres including seven national research centres, seven ARC Centres of Excellence and 13 Cooperative Research Centres. UNSW's new Centres Policy was introduced at the beginning of 2006. The policy is administered through the Centres Secretariat, located in Research Services, and governs the establishment, operation and review of all UNSW centres and institutes.

Major new centres set up in 2006 were the Defence and Security Applications Research Centre at UNSW@ADFA; Centre for Health Assets Australasia; Centre for Infection and Inflammation Research; and the City Futures Research Centre.

Benchmarking capacity

To maximise UNSW's competitive advantage and further develop existing strengths, we commenced a major benchmarking project in 2006, which included a comprehensive census of UNSW academics.

Our areas of research concentration are:

- > HIV/AIDS
- > Climate change and sustainable development
- > Social and health policy
- > Defence and security
- > Cancer and vascular health
- > Advanced materials and technologies
- > Information and communication technology
- > Brain science and neuroscience
- > Biotechnology

UNSW has also made significant national or international contributions in human rights, law and criminology; civil, structural and applied engineering; complex systems, modelling, mathematics and numerical analysis; creative, performing and visual arts; employment, economics and finance; fundamental and enabling sciences; health and ageing; and history and philosophy.

Research Quality Framework

In November 2006, the Federal Government endorsed the Research Quality Framework (RQF) for all Australian universities. The introduction of the RQF will bring about a dramatic change to the business of research from 2007 onwards. It is anticipated that the RQF will affect the allocation of the research block grant funding to universities. The Division of the Deputy Vice-Chancellor (Research) established an RQF Steering Committee to coordinate strategic research activities and to develop an implementation strategy for the Framework.

INFRASTRUCTURE

UNSW is committed to delivering the research environment and world-class infrastructure that is needed to build on our research strengths and attract the best researchers to undertake their work at the University.

The Analytical Centre

A major new purpose-built facility that co-locates major research instrumentation was completed in 2006. The Analytical Centre brings together existing research strengths in Electron Microscopy, Bioanalytical Mass Spectrometry (BMSF) and Nuclear Magnetic Resonance Spectroscopy. It also includes new facilities for X-ray Diffraction, Surface Analysis and Elemental Analysis (X-ray Fluorescence and ICP laboratories).

The Centre provides scientific research facilities and expertise to UNSW researchers, especially in the fields of engineering, science and medicine. It offers specialist instrumental capabilities for the analysis, characterisation and imaging of samples ranging from small molecules to complex materials. It occupies laboratories in the basement and ground floor of the new Chemical Sciences Building, as well as retaining the existing BMSF laboratories in the Faculty of Medicine.



Smart bugs clean up

An annual highlight for the research community is the presentation of the Australian Museum Eureka Prizes. It is the country's largest single award scheme for research into critical environmental and sustainability issues. In 2006, eight UNSW researchers were recognised in four awards, more than any other participating institution. Also creating a record was the University's 18 nominations, which was unprecedented in the prize's 26-year history.

Eureka prize-winning scientist Dr Mike Manfield is developing novel approaches that employ microbes to clean up contaminated industrial sites. "Bioremediation harnesses the remarkably versatile metabolic abilities of micro-organisms to break down harmful and recalcitrant by-products of industrial processes," he said. With an ARC Linkage grant (\$327,000) and funding from Orica Australia (\$248,000), Dr Manfield is working with colleagues to deliver these microscopic bug communities to consume pollutants in awkward locations, such as in soil and aquifers. It's a new breed of science that he hopes will ultimately give Australia an unprecedented advantage in the billion-dollar global bioremediation market.

MAJOR RESEARCH AWARDS 2006



Young Tall Poppy science prize winners, from left: Mr Leigh Sheppard, Dr Stephen Wroe, Dr Adam Micolich, Dr Louisa Degenhardt and Dr Stuart Tangye

FEDERATION FELLOW

Scientia Professor Martin Green
Executive Research Director of the ARC
Centre of Excellence for Advanced Silicon
Photovoltaics and Photonics

ARC PROFESSORIAL FELLOWS

- > A/Professor Christopher Barner-Kowollik, School of Chemical Engineering and Industrial Chemistry
- > A/Professor Alex Hamilton, School of Physics
- > Professor Oleg Ostrovski, School of Materials Science and Engineering
- > Dr Christopher Tinney, School of Physics

NHMRC SENIOR RESEARCH FELLOWSHIP

Dr Kay Double, Prince of Wales Medical Research Institute

NHMRC RESEARCH FELLOWSHIPS

- > A/Professor Stephen Lord, Prince of Wales Medical Research Institute
- > Dr Janet Taylor, Prince of Wales Medical Research Institute

NHMRC CAREER DEVELOPMENT AWARDS

- > Dr Nick Di Girolamo, School of Medical Sciences
- > Dr Maria Craig, School of Women's and Children's Health

NHMRC PRACTITIONER FELLOWSHIPS

- > A/Professor Greg Dore, National Centre in HIV Epidemiology and Clinical Research
- > Dr Tony Kelleher, National Centre in HIV Epidemiology and Clinical Research

EUREKA PRIZES

- > Dr Amanda Hayes, Ms Shahnaz Bakand and A/Professor Chris Winder, School of Safety Science (the Voiceless Eureka Prize for Research)
- > Professor Matthew England, Director, Climate and Environmental Dynamics Laboratory, PhD student Alex Sen Gupta and Dr Michael Dawson, Centre for Marine and Coastal Studies (the Sherman Eureka Prize for Environmental Research)
- > Dr Michael Valenzuela, School of Psychiatry/Black Dog Institute (the NSW Office for Science and Medical Research Eureka Prize)

- > Dr Mike Manefield, Centre for Marine Biofouling and Biotechnology (the British Council Eureka Prize for Innovation and Leadership in Environmental Science)

YOUNG TALL POPPIES

- > Dr Louisa Degenhardt, National Drug and Alcohol Research Centre
- > Dr Adam Micolich, School of Physics/ Department of Condensed Matter Physics
- > Mr Leigh Sheppard, Centre for Materials Research in Energy Conversion
- > Dr Stuart Tangye, St Vincent's Clinical School/Garvan Institute of Medical Research
- > Dr Stephen Wroe, School of Biological, Earth and Environmental Sciences

COMMERCIALISATION

2006 was the first full year of operation for NewSouth Innovations (NSi), the University's technology transfer company (formerly Unisearch). NSi works with researchers and industry to commercialise UNSW research. The company joined Uniseed, Australia's first specialist pre-seed commercialisation fund for university technology, with an investment of \$10 million.

NSi's objective is for UNSW to form a small number of spin-off companies each year, with Uniseed holding a priority right to back these new ventures. The University's current patent profile is approximately 49 percent in engineering, 30 percent in medicine and 20 percent in science, with a small component in humanities.

Here is a selection of projects that were under development in 2006.

Innovative GPS information delivery systems

NSi formed Audio Nomad Pty Limited last year to commercialise a new GPS location-based information delivery system. The software allows sound files to be overlaid onto maps and delivered according to the listener's location. The delivery can be made to any mobile device with a system player installed. In 2006 Audio Nomad™ became the first UNSW technology in which Uniseed invested.

Eco-friendly flash bricks

Commercial production is scheduled to commence in 2007 on a patented technology from UNSW@ADFA, which provides a method to produce bricks and aggregate for building and construction from the fly-ash waste from power stations. The flash bricks are 28 percent lighter and 24 percent stronger than comparable clay bricks. A licence agreement was signed with a US company, Eco-Ash, which contracted with a US-based power station site to use their fly ash for manufacturing purposes.

Relieving oil contamination

A simple tank-and-siphon system for removing oily water and protecting the environment has been launched internationally. The Extended Gravity Oil Water Separator (EGOWS), developed at UNSW's Water Research Laboratory, can remove oil to below 10 parts per million and keeps spilled oil out of the environment. The system, which requires no power, was awarded a major innovation prize last year from the International Water Association.

Novel liver disease treatments

A technology for producing clean, viable liver cells (hepatocytes) from surgical waste material has been developed by world-renowned liver specialist Dr David Morris and his team. HepatoCells, by HepatoCell Therapeutics (a company formed in 2003), can be used in multiple patients with minimal ongoing immune suppression. Full market entry into Australia, Europe and parts of Asia will begin in 2009.

New class of anti-cancer drugs

Cystemix Pty Limited, a wholly owned subsidiary of NSi, focuses on the development of small-molecule anti-mitochondrial cancer drugs. Cystemix's clinical trial strategy is to test its products on a variety of life-threatening cancers for which there are no effective treatments. Colon and ovarian cancer have been selected as the initial indication for a Phase 1 clinical trial study in 2007.

X-ray imaging technology

Novel nanophotonic material has been used in this environmentally safe and stable radiation sensing technology. Applications for ionising radiation storage phosphor include imaging plates for medical X-ray diagnostics, personal radiation monitoring badges, plates for scientific X-ray imaging on the nanoscale and 2D detectors for X-ray diffractometers.

Research showcase

The University's first annual research publication was produced last year. *Research@UNSW* showcases our success in research and innovation, highlighting projects as diverse as rescue robots for disaster zones through to breakthroughs in treatments for cardiovascular disease and cancer. The publication is targeted at postgraduate students, potential industry partners and research collaborators both in Australia and overseas.

RESEARCH TRAINING

Research students represent a key investment in our future and UNSW is committed to increasing our research training capacity. Demand remained strong for Masters by Research and PhD degrees with more than 1600 applications received last year. The University enrolled 540 local students and 244 international students in 2006, a 20 percent increase on 2005 numbers for this group. There was strong demand for the International and Local Research Scholarship rounds.

Graduate Research School

2006 was the first full year of operation for the Graduate Research School (GRS), the central administrative unit for higher degree research training at UNSW. The School implemented a range of initiatives to enhance the postgraduate research student experience. The approach was confirmed with more than 80 percent of completing students indicating satisfaction with their experience. Major achievements in 2006 included:

> A postgraduate research student study space was opened in the Library Building. With 24-hour access, the space has kitchen and lounge facilities, meeting rooms, and 75 workstations with computers.

> The GRS website was launched in February 2006, linking all aspects of research training and providing a portal to online resources through membership in the Joint Academic Online Scholarship (JASON) and fIRST (for Improving Research & Supervision Training).

> The Research Student Management System IT Business Plan was approved for development in 2007.

> The GRS organised seminars and events including orientation sessions, graduate research forums, and supervisor training workshops.

> The School produced a number of new publications including *Essentials for New Postgraduate Research Students*; *2007 Research Student Handbook*, launched in December 2006; *Graduate Research Student News*, a monthly newsletter; and *International Research Students' Guide*.

> The Higher Degree Research Supervision Policy was developed in 2006 for implementation in 2007 and centralised thesis submission and examination processes were introduced. A ranking procedure for the award of government and UNSW-funded scholarships was successfully trialled and progressively improved in the year's three scholarships rounds.

“Research students are an integral part of the highly active research culture that underpins our international research standing.”

Professor Margaret Harding,
Dean of the Graduate Research School

Google snaps up invention

Internet giant Google last year bought the rights to a search engine technology invented by 26-year-old PhD student Ori Allon. The computer science doctoral student is now working for the company at its Californian headquarters while he finishes his thesis, but not before making international headlines. His invention, an advanced text search algorithm, is set to revolutionise the way information is efficiently acquired from the internet. The technology speeds up the time-consuming search function by working with existing search engines, using artificial intelligence to guess what people are looking for. The software was developed with Allon's supervisor, Dr Eric Martin.



^ There are more than 2300 PhD students currently studying at UNSW across all faculties including (from left): Anuradha Chatterjee, Duncan McDuie-Ra, Simon Kwok, Kate Jeffrey and Leanne Pearson

UNSW is renowned for teaching **innovation** and the quality of our graduates. We aspire to excellence in scholarship, learning and the student experience.



LEARNING AND TEACHING



YEAR IN REVIEW

2006 was a standout year for UNSW's learning and teaching effort. Excellence in teaching across a number of disciplines was recognised by the Federal Government with a significant funding reward for the University. A record number of academics were honoured for their contributions to student learning and the outstanding achievements of many of our best students were recognised with prestigious scholarships, awards and industry accolades. A major strategy to enhance the UNSW student learning experience was launched, along with incentives to boost recruitment and retention of top students.

QUALITY TEACHING

Students come to UNSW to learn and a major priority of the University is to make their educational experience as interesting, challenging, relevant and enjoyable as possible.

We have developed a number of initiatives to achieve this goal, based on the University's Learning and Teaching Plan, and Guidelines on Learning that Inform Teaching, distilled from current research on educational quality. This approach was confirmed during 2006 by a range of awards acknowledging our achievements.

Top ranking for business and law

UNSW's teaching profile received a major boost in December with our number one ranking among Australian universities for the quality of learning and teaching in business and law. The assessment was conducted by the Federal Government's Learning and Teaching Performance Fund, based on graduate surveys measuring levels of satisfaction and employability, or progress to further study, as well as Federal Government data on retention and progression rates.

UNSW was allocated a total of \$6.65 million for 2007, the highest overall allocation received in the state and one of the highest nationally. Almost \$2 million was allocated for the discipline group of business, law and economics. We were also rewarded for excellence in the discipline categories of science, computing, engineering and architecture; and humanities, arts and education.

Measuring performance

The University's own performance indicators reflect the results of the Commonwealth's assessment. All faculties recorded overall improvements in learning and teaching outcomes and demonstrated a more coherent and integrated approach to building staff capacity.

Another key method of measuring our teaching quality is student feedback. The results of UNSW's Student Satisfaction Survey, which is conducted annually, show positive trends in student learning experiences. An increase or improvement was found in some 80 percent of items for undergraduate students and 65 percent for postgraduates. The University's Course and Teaching Evaluation and Improvement Process (CATEI) also produced positive results.

The University is also exploring more effective approaches to assessing teaching performance. A/Professor Michele Scoufis, the Director of Learning and Teaching, was awarded a \$200,000 grant from the Carrick Institute for a pilot project to develop and implement peer review protocols for teaching in selected Australian universities.

Teaching honours

A record number of academics were recognised during 2006 for their contributions to student learning. Recipients of key external awards included:

- > UNSW was awarded nine out of a maximum possible ten citations from the Carrick Institute for Learning and Teaching in Higher Education as part of the 2006 Australian Awards for University Teaching. In total 17 academics were honoured for their contribution to student learning: Rick Bennett and Simon McIntyre, College of Fine Arts; Richard Buckland, School of Computer Science and Engineering; Shirley Carlon, Atax, Faculty of Law; Dr Dominic Fitzsimmons, Dr Ian Collinson, Dr Monica Kerretts, Geoff Quick and Shivaun Weybury from The Learning Centre; George Hatsidimitris, School of Physics; Dr Frances Miley, UNSW@ADFA; Suzanne Mobbs, Office of Medical Education; Dr Carmen Moran, School of Social Work; Dr Noel Whitaker, Dr Will Rifkin, Dr Helen Dalton and Michelle Kofod, Faculty of Science.
- > A/Professor Jacquelyn Cranney from the School of Psychology was one of only eight academics across Australia to be awarded an inaugural Associate Fellowship, valued at \$90,000, with the Carrick Institute.
- > The Carrick Institute recognised A/Professors Andrew Metcalfe and Ann Game from the School of Sociology and Anthropology for excellence in team teaching.

Management

Following an organisational restructure in 2006, Professor Richard Henry was appointed in August as Deputy Vice-Chancellor (Academic) to head the division responsible for UNSW's learning and teaching programs. The portfolio includes the Pro-Vice-Chancellor (Students) and Registrar; Pro-Vice-Chancellor (UNSW International); Learning and Teaching; Nura Gili (Indigenous programs); UNSW Library; and Institutional Analysis and Reporting.

UNSW is expanding its learning and teaching capacity to ensure continued improvement in performance indicators. It is also looking at initiatives to develop a more strategic approach to teaching innovation particularly in relation to the online learning experience.

In December Professor Joan Cooper was appointed to the newly created position of Pro-Vice-Chancellor (Students) and Registrar. Professor Cooper takes up her position in 2007.

“As a leading research university, our teaching is informed by the latest research on providing positive and creative student experiences that encourage learning.”

Professor Richard Henry,
Deputy Vice-Chancellor (Academic)

- > Professor Joe Wolfe from the School of Physics and Richard Buckland from the School of Computer Science and Engineering were awarded 2006 NSW Quality Teaching Awards.
- > Professor Deo Prasad of the Faculty of the Built Environment won the 2006 RAIANeville Quarry Architectural Education Prize for leadership in teaching and research.

A range of fellowships and awards are also offered by the University to build our learning and teaching capacity, and reward staff for their innovation and effectiveness.

- > The 2006 recipients of the Vice-Chancellor's Awards for Teaching Excellence were Dr Russell Boyce, School of Aerospace, Civil and Mechanical Engineering (ADFA); Dr Grace Karskens, School of History; Dr Nancy Marshall, Faculty of the Built Environment; Professor Patrick McNeil, South Western Sydney Clinical School; Professor Richard Newbury, School of Physics; and A/Professor John Smith, School of Physics. Cathleen Sherry, Faculty of Law, received the sessional teaching award.
- > To support the nexus between teaching and research UNSW provides assistance to talented younger researchers who would like to concentrate on developing an innovative teaching program. The Vice-Chancellor's Teaching and Research Awards, valued at \$80,000 per annum for two years, support the appointment of a Postdoctoral Fellow or research assistant. In 2006 grants were awarded to Dr Stephen Bonser, School of Biological, Earth and Environmental Sciences; Dr Nicodemus Tedla, School of Medical Sciences; and Dr Sean Li, School of Materials Science and Engineering.

Research-based learning culture

As a leading research university, our teaching is informed by the latest research on providing positive and creative student experiences that encourage learning. A number of UNSW projects and staff advancing the scholarship of learning and teaching were recognised in 2006.

- > In a first for an Australian university, UNSW won entry into the Carnegie Foundation's Institutional Leadership Program, joining a number of research-intensive universities from the US, Canada and the UK. The UNSW team is led by A/Professor Michele Scoufis, with Dr Peter Looker, Graham Forsyth, A/Professor Lucy Taksa and Rosalind Walsh.
- > The University received significant funding from the Carrick Institute for three research projects. In addition to the peer review pilot, the studies cover educational leadership and sessional teaching.
- > The Carrick Institute also funded five discipline-based projects. The studies cover a range of disciplines and learning environments: multimedia resources for teaching first-year physics (Professor Joe Wolfe); an automated developmental assessment tool for computer scripting skills (Dr John Shepherd); encouraging role-based learning environments (Dr John Shepherd); creating a student-centred online learning environment for report writing in the sciences and engineering (Sue Starfield, Pam Mort, Dr Paul Hagan and Dr Kathy Takayama); and embedding development of intercultural competence in business education (A/Professor Prem Ramburuth).

Teaching support

Opportunities for staff to develop their teaching expertise were expanded in 2006. The Learning and Teaching Unit ran a series of courses and workshops including the Foundations of University Learning and Teaching program. To support teachers of first-year students, a central online resource was created through a staff-developed website. An online resource for sessional teaching staff was also developed.

Following a six-month trial, UNSW introduced Turnitin software as part of a larger policy on student plagiarism.

Graduate attributes

UNSW is committed to providing an environment that fosters in our students the following attributes:

- > the skills involved in scholarly enquiry
- > an in-depth engagement with the relevant disciplinary knowledge in its interdisciplinary context
- > the capacity for analytical and critical thinking and for creative problem-solving
- > the ability to engage in independent and reflective learning
- > information literacy – the skills to appropriately locate, evaluate and use relevant information
- > the capacity for enterprise, initiative and creativity
- > an appreciation of, and respect for, diversity
- > the capacity to contribute to, and work within, the international community
- > the skills required for collaborative and multidisciplinary work
- > an appreciation of, and a responsiveness to, change
- > a respect for ethical practice and social responsibility
- > the skills of effective communication.

A statement of broad graduate attributes has meaning when expressed to students and staff in the context of the discipline. The faculties are responsible for expressing these graduate attributes in the context of the professional area, discipline and program level, and for their explicit development and assessment within the curricula.



Glenn Murcutt leads design studio

In session 2, internationally renowned architect and UNSW alumnus Glenn Murcutt took third-year architecture students “out of their comfort zone” to the Mutawintji National Park in the remote western region of the state. The program was the first in a series of studios he will lead over three years under the theme of *Australian Landscape: Desert, Coastal and Rainforest*. Murcutt is the only Australian to have won the Pritzker Prize, which is considered architecture’s highest distinction. He was appointed an Adjunct Professor at UNSW last year.

In July 2007 UNSW will host a major international conference on design education. Organised by the Faculties of the Built Environment, Engineering and the College of Fine Arts, the conference will focus on new models of design education that cross discipline boundaries.

UNSW graduates scored the **highest** average annual starting salary in Australia

THE STUDENT EXPERIENCE

Enriching the learning experience of all our students continued to be a focus of the University in 2006. A major new strategy was launched to expand the opportunities students have to reach their full potential.

Student demand for undergraduate places in all faculties at UNSW remained strong last year and we attracted a large percentage of the state's highest-achieving school leavers – more than one-third of our current enrolments have a UAI of over 95. To further improve recruitment and retention of top students, a number of new initiatives were launched in 2006.

Scholarships

UNSW significantly boosted student scholarships in 2006. In August, we announced a new award for the state's brightest students. In the first scholarship program of its kind in Australia, every high school principal in NSW and the ACT was asked to nominate their top student for an Academic Achievement Award (AAA), based on their year 11 and 12 results. The students receive a \$4000 scholarship on admission to UNSW.

The Scientia Scholarships were awarded for the first time last year. Students who receive a UAI of 99.9 or over in the HSC are eligible for the scholarship, valued at \$10,000 per annum for up to five years. The University offers a total of 300 undergraduate and postgraduate coursework scholarship programs, with close to 2000 students currently receiving income from these awards.

Study opportunities

We expanded our program choice last year, approving six new undergraduate programs, 13 postgraduate qualifications and two new doctorates, to be offered from 2007. The new programs include Australia's first Masters degree in forensic mental health. The NSW

Government has committed \$1.7 million over five years for the program, which is aimed at health and legal professionals. The Academic Board also reviewed and revised a significant number of programs.

Graduate outcomes

UNSW has very strong links with the professions and our graduates are highly rated in terms of employability and starting salaries. In 2006, UNSW graduates scored the highest average starting salary in Australia at \$47,000 for all undergraduate students under 25. According to the Australian Graduate Survey, our graduates also scored the highest employment rate in the state at 89 percent, and the second highest nationally, for undergraduates under 25.

We have continued to expand opportunities for students to undertake work placements. The UNSW Co-op scholarship program was set up by industry and the University 20 years ago to provide financial reward and structured industrial training for selected high-achieving undergraduate students in commerce, science and engineering. In 2006 there were 460 Co-op scholars working with more than 150 sponsoring employers. It is the largest program of its kind in Australia.

From 2007, UNSW will begin issuing graduates with a "secondary testamur" to recognise students' activities outside formal study such as volunteer work, international exchanges, scholarships and sporting achievements. Combined with an academic transcript, it provides employers with a much broader range of graduate capabilities. The initiative was coordinated with the student body.

MAJOR AWARDS 2006



^ Learning at the speed of light

An innovative program for engineering students has paid off with a world record for the fastest solar-powered road trip from Perth to Sydney. Designed and constructed by students over many months in 2006, UNSW's solar car, Jaycar Sunswift III, took just five days to cross the continent in January smashing Dick Smith's previous record. The UNSW Solar Racing Team comprises 11 members, headed by Yael Augarten. Jaycar Electronics last year signed on as the team's main sponsor.

The outstanding achievements of many of our best students has been recognised with prestigious scholarships, awards and industry accolades. Here is just a small selection of UNSW student honours in 2006.

- > Arts/law graduate Jackie Hartley won the prestigious Fulbright Postgraduate Australian Alumni (WG Walker) Award in 2006 to undertake a Master of Laws in Indigenous Peoples Law and Policy at the University of Arizona, Tucson. The WG Walker Award goes to the highest-ranking postgraduate applicant.
- > Arts/law student Julia Roy was awarded a Fellowship by the Goldman Sachs Global Leaders Program.
- > Arts/law graduate Aruna Sathanapally received the General Sir John Monash Award to study at Oxford University.
- > Arts/law student Fiona Cunningham was one of 18 Australian undergraduates selected to attend the Harvard World Model United Nations Conference.
- > PhD student Andrew Botros was named 2006 Young Professional Engineer of the Year.
- > Luke Spitzer was named Engineering Student of the Year by Engineers Australia.
- > Henry Ko, a PhD student in the Graduate School of Biomedical Engineering, was recognised as one of the world's top 100 young "bio-leaders".
- > COFA PhD candidate Vanila Netto won the 2006 Archibald Photographic Portrait Prize for *The magnanimous beige wrap part 1 –(contraption)*.
- > Masters of Fine Arts student Todd McMillan won the 2006 Helen Lempriere Travelling Art Scholarship.
- > Industrial design graduate Tricia Ho won the Gold Australian Design Student Award for her ergonomic violin.
- > Industrial design graduate Julie Frost won the Bronze Australian Design Student Award for her water purifier and storage unit.
- > Undergraduate student Angeline Meloche was named the Sydney Morning Herald Young Designer of the Year.
- > Tim Bainbridge was named Australian Young Planner of the Year 2006 by the Planning Institute of Australia.
- > Cricketing champion and UNSW medical student Alex Blackwell was named Outstanding Athlete of the Year by Australian University Sport.



INTERNATIONAL ENGAGEMENT



YEAR IN REVIEW

In 2006 UNSW continued to build on its reputation as a leading international university. We again set the benchmark for successfully exporting international education, winning the education category of the 2006 Trailblazers Awards. Our international links were enhanced with new collaborative partnerships, exchange programs and agreements with other leading research and teaching institutions around the world.

INTERNATIONAL STUDENTS

In 2006 we welcomed more than 9000 international students from 130 countries, maintaining one of the most diverse student cohorts of any university in the world.

UNSW International works with an extensive network of offices overseas to provide information to prospective international students and manage relationships with international partners. In October 2006, UNSW International launched a significant positioning campaign in key target markets, including Asia, South America and the Middle East and broadened its recruitment channels by appointing education agents in various countries to further diversify our international enrolments.

UNSW's top 10 source countries, 2006

1	China
2	Hong Kong
3	Indonesia
4	Singapore
5	Malaysia
6	India
7	Korea
8	Thailand
9	USA
10	Taiwan

Student exchange

As part of UNSW's policy of internationalisation, students are encouraged to spend a session or two of exchange studying at an overseas university as part of their UNSW degree. We offer more than 180 student exchange opportunities at 172 respected partner institutions around the world. Last year 368 students went on exchange, up from 342 in 2005.

UNSW Study Abroad programs offer opportunities for international students to gain credit for courses at their own institutions while studying at the University. Eleven Study Abroad students were awarded tuition scholarships in 2006, based on academic performance. The recipients come from Italy, Denmark, France, Germany and the United States. The scholarships are awarded to students who have already completed one Study Abroad semester.

UNSW also offers the Professional Practicum Program, managed by UNSW International, which provides opportunities for students from any partner university to engage in international research and training at UNSW.

Graduations

UNSW regularly conducts graduation ceremonies in Asia. In 2006 events were held in Singapore and Hong Kong. We have the largest number of graduates in South-East Asia of any Australian university and many of our alumni actively maintain their connection with UNSW. Overseas chapters of the Alumni Association operate in Hong Kong, Malaysia and Singapore.

International collaborations

As an active member of *Universitas 21*, an international alliance of 17 leading universities in 10 countries, UNSW has access to a framework for international collaboration, and exchange of expertise and experience. Partnerships and alliances also provide enhanced opportunities for staff to advance their research and teaching through exchanges and fellowships.

By the end of 2006, UNSW had more than 200 partnerships with institutions of equal standing worldwide. We also regularly host high-level delegations from partner institutions, prospective partners and governments.

Twelve new agreements were signed in 2006: ESSEC Business School Paris (France); Reims Management School (France); Sciences Po (France); Indian Institute of Technology, Bombay (India); Quinn School of Business (Ireland); Ritsumeikan University (Japan); ETH Zurich (Switzerland); Lancaster University Management School (UK); the Manchester Business School (UK); the University of Nottingham-Law School (UK); University College, London (UK); and the University of Leeds. We are also currently working on new agreements with institutions in India, Malaysia and Thailand.

Management

In 2006 Jennie Lang was appointed to the newly created position of Pro-Vice-Chancellor (International), in the division of the Deputy Vice-Chancellor (Academic). The UNSW International Office is responsible for marketing and recruitment for international programs and international operations. NewSouth Global is the international education, training and consultancy arm of UNSW and supports our international initiatives and activities. It currently manages UNSW offices in Singapore, Thailand, Vietnam, Hong Kong and India. The offices assist alumni development and support undergraduate and postgraduate recruitment.

“As a global university, we are committed to providing an international education focus. It is critically important to be open to the world through education and research.”

Jennie Lang,
Pro-Vice-Chancellor (International)

Other collaborative partnerships established in 2006 included:

- > Memorandum of Understanding (MoU) with the Indian Institute of Technology in Mumbai. Prime Minister John Howard witnessed the signing during his visit to India. The MoU will encourage research collaboration in the areas of science and engineering between the two institutions.
- > MoU with Thailand's Office of the Civil Service Commission. The UNSW–Thailand Doctoral Completion Scholarships will be available for Thai research students currently undertaking full-time PhD programs at UNSW.
- > MoU with the Korean Ministry of Education and the Academy of Korean Studies. UNSW will become the leading research and education hub for Korean studies in Oceania and South–East Asia, with a grant of \$1.5 million over five years to the UNSW Korea–Australasia Research Centre (KAREC).

Offshore offices

In 2006 UNSW became the first Australian university to establish a company in India dedicated to developing commercial and research partnerships, and student and staff exchange. The Acting Australian High Commissioner to India opened UNSW offices in New Delhi and Mumbai in October to mark the launch of NewSouth Global India Private Limited. A new scholarship for the top Indian student in the International Assessments for Schools program run by UNSW's Educational Assessment Australia and Macmillan India was also launched.

UNSW Asia

UNSW Asia, Singapore's first foreign university, will open to undergraduates in 2007. Postgraduate programs are planned from 2008.

Advances in planning for the opening of the Singapore campus were made last year. Applications for undergraduate programs opened in January 2006 and academic and general staff were recruited.

UNSW Asia will focus on research that is significant to the Asian region with centres of excellence that leverage and expand the work of faculty members at UNSW in Sydney. Strategic research directions are being developed with initial work focusing on water, photovoltaics and digital media.

UNSW Asia School

The UNSW Asia School was established in 2006 to run the University's successful Foundation Year program in Singapore. The 40-week pre-university course follows the same syllabus as the UNSW Foundation Year program in Sydney. Students are prepared for undergraduate study at UNSW Asia and UNSW in Sydney with the program covering both relevant discipline-specific courses and an academic English-language course. The first intake of 28 students drawn from Singapore and the region graduated in November. The UNSW Foundation Year Asia is currently being delivered at the campus of Temasek Polytechnic.

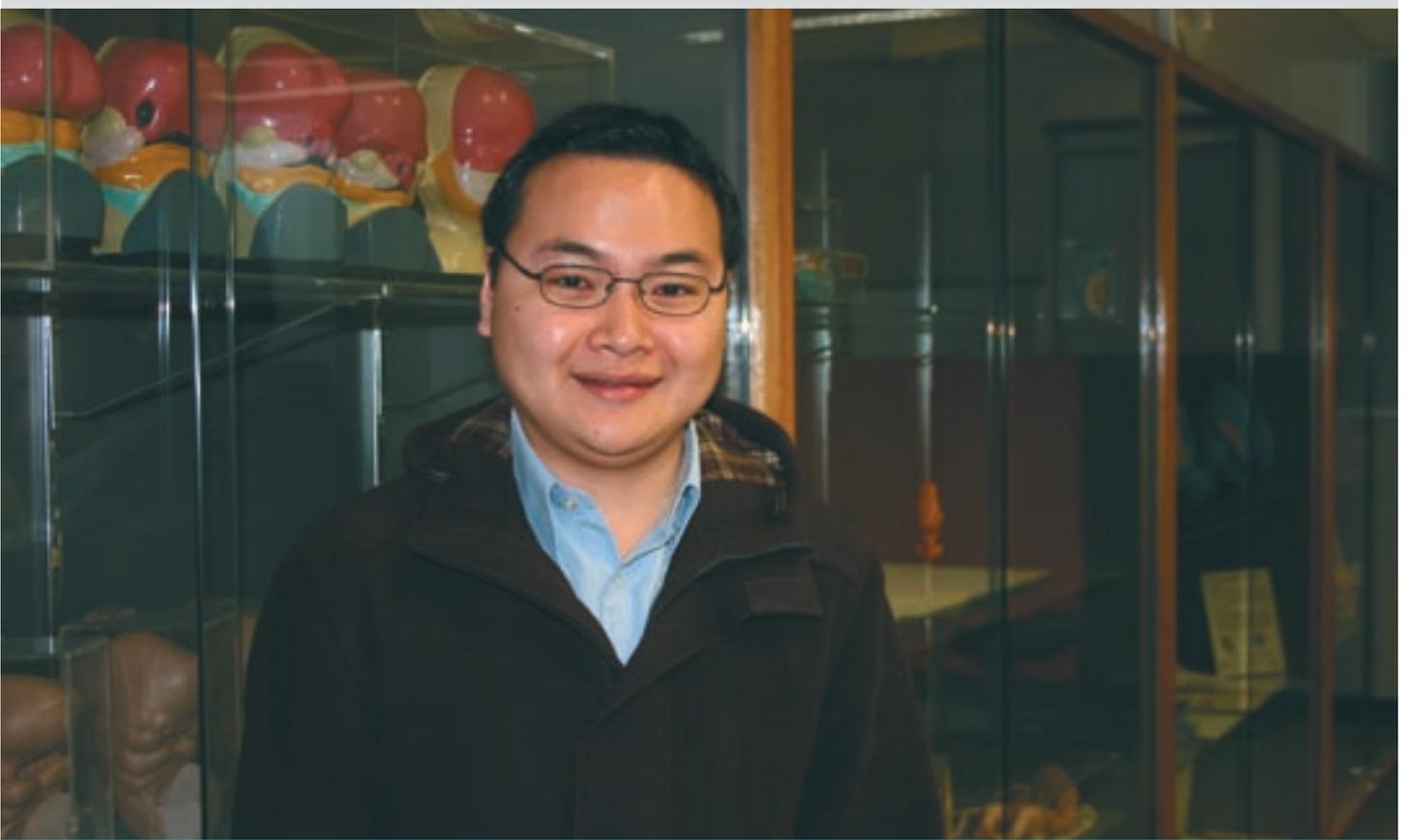
Institute of Languages

In 2006 the UNSW Institute of Languages celebrated 40 years of teaching language and cultural skills to UNSW staff, students and the community. More than 100,000 students have enrolled in courses in that time. The Institute is particularly known as a provider of language skills, as distinct from an academic provider of language-related curricula.

Golden Jubilee Scholarships

The Prime Minister of Singapore, Mr Lee Hsien Loong, honoured 43 Golden Jubilee Scholars during a visit to the University in June. The scholarships are awarded to exceptional students ranked first or second in their college or polytechnic and cover all tuition expenses for students to continue their studies to degree level at UNSW.

The Golden Jubilee Scholarships were established in 1999 to commemorate the 50th anniversary of UNSW and to recognise the close relationship between the University and particular colleges and polytechnics in Singapore and Malaysia. To date, UNSW has awarded 189 scholarships worth \$7.7 million.



Laotian graduate makes medical history

A UNSW medical graduate made history in 2006 even before he started work as a doctor. Soulivanh Pholsena is the first person from Laos to train as a doctor in a Western country in a quarter of a century.

The 26-year-old returned home to work for the Laotian government. Dr Pholsena will be one of only 1200 doctors serving a population of 6.5 million. He is also one of the youngest, in a country where the vast majority of his colleagues are over 50. Instead of taking up a prestigious position at the hospital in his hometown of Vientiane, he has chosen to work in some of the poorest regions in the country.

“Life expectancy is low, infant mortality is high and many people die of malnutrition and malaria,” he said. “There’s a lot of room to improve in Laos. We can’t change it in one day, so it’s important to be patient. Even one person can make a difference and I believe more and more will follow.”

UNSW is committed to enriching the social, cultural and intellectual life of the wider community through high-quality teaching and research.



COMMUNITY ENGAGEMENT



YEAR IN REVIEW

Community engagement is integral to the University's development and in 2006 we continued to build relationships with alumni, business and government. There were 57 new endowed and beneficial funds created in the UNSW Foundation, which last year assumed responsibility for all alumni and development activities. The University hosted a successful program of public lectures, conferences, art and cultural exhibitions, and events. We also strengthened links with schools and promoted informed debate on a number of key national issues.

DEVELOPMENT AND ALUMNI

In late 2006 the roles of the Marketing and Development Office were moved into separate departments. The UNSW Foundation, established in 1988 as the University's fundraising arm, assumed responsibility for all alumni and development activities.

UNSW Foundation

The brief of the UNSW Foundation has been reoriented from funds management to funds creation and building relationships with alumni. As part of these changes, three new positions were introduced: Chief Executive (Jennifer Bott), Director (Sue Donnelly, development) and Assistant Director (Stergitsa Zamagias, alumni). UNSW Chancellor David Gonski became the Chair of the Foundation Board to emphasise the significance of the Foundation to the University and external communities. A significant number of new Board members have been appointed.

All Foundation activities are under review to enable the University to build partnerships with external stakeholders and the wider community. Although the University supports the Foundation's operational costs, it is anticipated that over time its activities will become self-supporting, providing greater transparency in terms of fundraising costs.

The UNSW Foundation ended 2006 with consolidated equity of \$59.9 million. About \$50 million is held in endowment, and distributions support a wide range of activities including research, Chairs, scholarships and prizes. This assists the University to attract and support the best students from Australia and overseas as well as build on a strong reputation for research and teaching excellence.

Development

In 2006, 57 new endowed and beneficial funds were created in the Foundation, adding \$1.9 million. The Foundation reported \$5.6 million in donations (\$4.6 million from external donors and \$1 million from within UNSW), down from \$6.2 million in 2005. There were additional donations received by UNSW, totalling approximately \$2 million, which were not directed through the Foundation.

The largest single gift, of \$1.5 million, was from Dr Zhengrong Shi, Chairman of Suntech Power for research in photovoltaics (see box on page 46). Another significant gift was made by the electronics firm, Jaycar, which added to previous donations for the Gary Johnston Chair in Water Management (total \$1 million) and the Sunswift solar car project.

A new entity, the John & Pamela Lightfoot Trust, was established to support a core program of scholarships to benefit Indigenous students throughout the cycle

of their academic life. The Trust reflects the Lightfoots' desire to establish a permanent structure to support UNSW Indigenous students both now and in the long term.

The Law campaign – Building Great Minds, Building Partnerships, Building Law – was launched in 2006 to coincide with the opening of the new Law Building. The Faculty hopes to raise \$10 million over three years to establish the Law Endowment Fund, with a target of \$2 million for 2007. To date the Fund has had generous support from several law firms and alumni. The campaign received \$3 million in institutional support and a further \$929,000 through alumni personal gifts. The income from the endowment will supplement the costs of initiatives in the areas of research, social justice programs, internships, scholarships and student programs.

The UNSW Foundation extended its reach internationally in 2006 with the addition of development officers in the UNSW Hong Kong Ltd office, in Singapore at UNSW Asia, and an advisor in the United States.

Several of our Deans visited the US in 2006 and re-established contact between the University and our alumni. Subsequently, a number of significant donations to University campaigns and scholarships have been received.



Dr Kelvin Kong, UNSW alumnus and Australia's first Indigenous surgeon (see box on page 48)

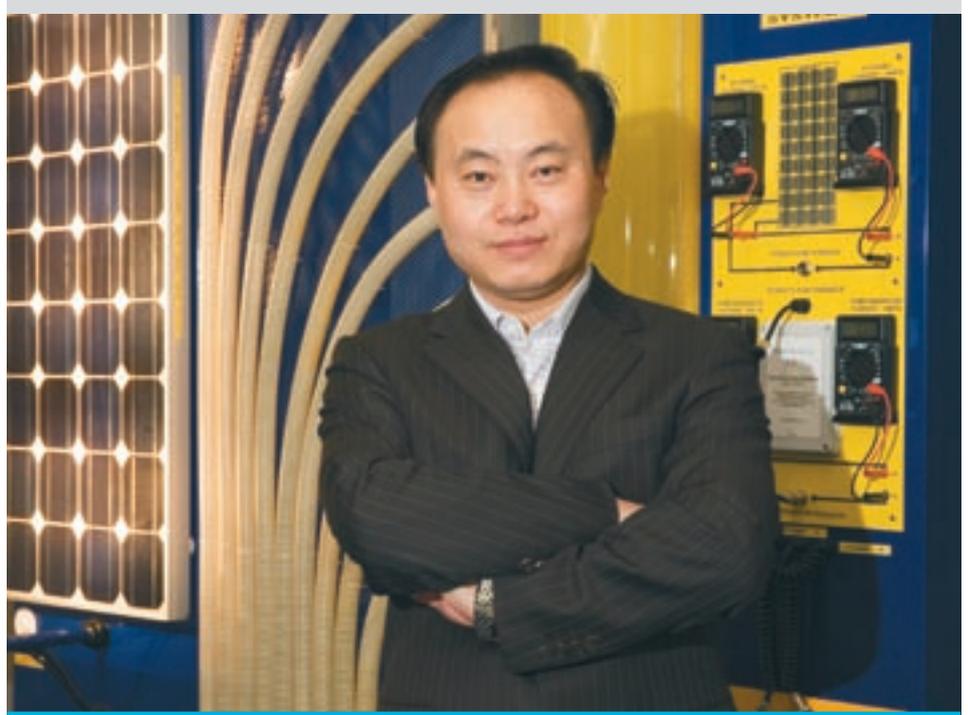
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Mr Albert Wong

The following directors served in 2006 and have now resigned from the UNSW Foundation Board: Mr Christopher Cuffe; Mr John Kinghorn; Dr Ronald Lu; Mr Robert Mansfield AO; Mr Robert Maple-Brown; Mr Daniel Petre AO; Mr Peter Ritchie AO; Mr Neville Roach AO; Professor Mark Wainwright AM.

The Foundation thanks Mr Robert Maple-Brown and Mr Peter Ritchie AO for their support and leadership of the Board. Ms Clare Taylor resigned as Chief Executive of the Foundation in August 2006.

*at the date of this report



Sun shines on photovoltaic research

Suntech Power, the largest solar cell manufacturer in China, donated \$1.5 million towards solar and renewable energy research at UNSW. Suntech's Chairman and Chief Executive Officer, Dr Zhengrong Shi, is an alumnus of the University. The contribution was part of a new collaborative research agreement with the ARC Centre of Excellence for Advanced Silicon Photovoltaics and Photonics announced in November 2006.

Dr Shi describes the partnership between Suntech and UNSW as a step forward in the global quest to find renewable energy. "Suntech's research relationship with UNSW strives to make solar power an even more attractive clean solution to the world's energy needs," he said.

Dr Shi, who received his PhD in 1992, is a specialist in crystalline solar cell technology. Suntech's contribution will fund the research and development of technology that increases the conversion efficiency of solar cells and decreases solar energy's cost per watt.

Alumni activities

Alumni activities are a key part of the UNSW Foundation. Officers work with the faculties and UNSW Alumni Association to coordinate alumni programs and promote UNSW as a centre of excellence with a vibrant international community.

The annual Alumni Awards recognise excellence in UNSW alumni achievement. In 2006 the UNSW Alumni Association recognised four graduates who have made outstanding contributions to their profession and their community:

- > Dr Peter Farrell AM (DSc '81) in Business and Commerce
- > Mr Simon Rice OAM (BA '81, LLB '83, Med '91) for contribution to the Community at Large
- > Mrs Dagmar Schmidmaier AM (DipLib '68, MLib '85, Hon DLitt '99) in Arts/Law
- > Professor Alan Trounson (BSc '68, MSc '71) in Science and Technology.

The Alumni Association also awarded five scholarships to undergraduates, each worth \$1500, to support their early years of study. In addition two Graduated Award winners were recognised for their service to UNSW and the community: Mr Danny Yap (BCom (Hons), LLB '06) and Ms Frances Foster-Thorpe (BA (Hons), LLB '06).

Other key activities included:

- > The Alumni Association expanded its Brain Food free public lecture series to six events in 2006. The lectures were presented by UNSW academics and attracted up to 600 attendees. The lecture topics included the Law on Terror (Professor George Williams); Climate Change (Professor Matthew England); Depression (Professor Gordon Parker); Population Ageing (Dr Hazel Bateman); Sexual Behaviour in Australia (Dr Juliet Richters); and Aspects of the History of Prostitution in Australia (A/Professor Rae Frances).

- > The Young Alumni networking drinks evenings continued in 2006. Held twice yearly in the CBD, the events attract up to 200 graduates and future events are expected to draw greater numbers.
- > The Alumni Association Pioneers' group continued to hold regular meetings and the Alumni Association Volunteers provided support services to UNSW one day a week, in addition to greeting and assisting visitors at graduation ceremonies.
- > Receptions for UNSW alumni were held in Hong Kong and Singapore in connection with graduation ceremonies, in Vietnam as part of NewSouth Global's international conference, and in Beijing to coincide with the new Vice-Chancellor's first official visit to China. Alumni in the United States joined a reception at the Australian Embassy in Washington DC for past Study Abroad students. In Australia, a reception for alumni in Canberra was hosted by UNSW@ADFA at the Australian War Memorial.
- > The alumni magazine *UNSWorld* is sent to all UNSW graduates in both Australia and overseas (where mailing addresses are available). The two issues in 2006 went to 120,000 and 127,000 alumni respectively.

Meet the CEO

- > Meet the CEO is a very successful speaker program initiated by the Faculty of Business Advisory Council, providing a unique professional development and networking opportunity for UNSW business graduates. In 2006, the speakers were Steven Lowy, the Group Managing Director of Westfield and alumnus of the Faculty of Commerce and Economics; Westpac Chief Executive David Morgan; and Dr Peter Shergold, Secretary of the Department of the Prime Minister and Cabinet. The program is sponsored by Deloitte.

“The UNSW Foundation is building partnerships with business, government and alumni to support scholarships, research and other important University initiatives.”

Jennifer Bott,
Chief Executive, UNSW Foundation

Australia's first Aboriginal surgeon

A UNSW medical graduate has become the first Aboriginal surgeon in Australia. Dr Kelvin Kong, who helped establish UNSW's Indigenous Pre-Medical Program when he was an undergraduate, is an ear, nose and throat specialist. He became a fellow of the Royal Australasian College of Surgeons in June.

"Indigenous Australia remains over-represented on every poor determinant of health. There are high rates of ear disease in Australia's Indigenous communities and I want to help address those," said Dr Kong, who is based at Sydney's St Vincent's Hospital and is a conjoint academic at UNSW.

Dr Kong is involved in clinics run by the Aboriginal Medical Service, is a board member of the Australian Indigenous Doctors' Association (AIDA) and co-wrote the AIDA *Healthy Futures* report, which defines best practice in the recruitment and retention of Indigenous medical students. He also played a key role in setting up the Faculty of Medicine's Rural Clinical School and the University-wide Aboriginal Education Program.

COMMUNITY OUTREACH

The University provides a wide range of opportunities for community engagement, from annual public lectures, to programs for primary and high school children, student placements, art exhibitions and community service. Here is a selection of highlights from 2006.

> Medical students with heart

UNSW medical students have donated up to \$200,000 worth of equipment to hospitals in developing countries, where even the most basic tests are sometimes unavailable. In 2006, 36 medical students volunteered during their holidays as part of the Medical Students' Aid Project (MSAP), to work in India, Africa, Central and South America, South-East Asia and the Pacific. Now in their final year of medicine, the students donated the equipment and their skills to 20 hospitals. The work placements are counted as an elective for the undergraduate medical program.

> Engineering summer school

Currently in its tenth year, UNSW's Indigenous Australian Engineering Summer School (IAESS) is designed to steer outstanding Indigenous students into an engineering education and profession. Each January, young Indigenous students experience university life and exploring the careers open to engineering graduates. Students selected for the IAESS program have gone on to become role models in the profession, graduating from electrical, biomedical and civil engineering, with many returning to the program as mentors. The program is run by the Faculty of Engineering and Nura Gili Indigenous Programs at UNSW and is supported by Engineering Aid. Twenty students attended the school last year and a new scholarship was launched with additional funds from UNSW.

> Sustainable Living Challenge

In 2005, the Faculty of the Built Environment launched FBEOther! to explore the nexus between research, learning and engagement in the context of education for sustainable development. The program coordinates a range of initiatives from course electives, research and consulting projects with state and local governments to school-based activities, including the national Sustainable Living Challenge. The national competition is Australia's peak secondary schools program addressing sustainability issues and is run in partnership with the United Nations Environment Programme. The internationally recognised initiative supports more than 400 teachers and their school communities each year. It asks young people to consider their own sustainable living challenge, and take steps to research, design and take action in order to make their vision a reality.

> Gifted education programs

The Gifted Education Research Resource and Information Centre (GERRIC) provides leadership in research, teaching and services for gifted education and was the first centre of its kind in the Southern Hemisphere. The Centre runs specialist programs for teachers from Australia and overseas and hundreds of children aged between 6 and 16 regularly attend vacation programs for gifted students.

> ARTEXPRESS

The College of Fine Arts is a long-time venue for ARTEXPRESS, the annual exhibition featuring outstanding artworks produced by visual arts students for the HSC. ARTEXPRESS@COFA is curated by the staff and students of the School of Art Education.

> Kingsford Legal Centre

Labor MP and UNSW alumnus Peter Garrett launched Kingsford Legal Centre's (KLC) 25th anniversary celebrations in November. KLC runs both a legal education program for UNSW's law students and community legal services, specialising in discrimination and employment law. KLC has recently expanded with the opening of two community outreach programs in Maroubra and Eastlakes Shopping Centre.

> Gilbert + Tobin Centre of Public Law

The Gilbert + Tobin Centre of Public Law in the Faculty of Law plays a prominent, independent role in public debate on issues vital to Australia's future including Bills of Rights, the reconciliation process and native title, and the challenges of responding to terrorism. As well as hosting a number of events on public law issues, a new book by Professor George Williams and Dr Andrew Lynch, *What Price Security?* was published in October by UNSW Press. The book is an accessible guide to the key components of Australia's anti-terrorism laws.

> Institute of Languages

In 2006 the UNSW Institute of Languages celebrated 40 years of teaching language and cultural skills to the community. Since 1966 more than 100,000 clients have passed through its doors. The Institute has contributed to linguistic and cultural development, both locally and internationally, through excellence in language education and testing.

> UNSW Literary Fellowship

Playwright John Romeril was the recipient of the 2006/07 UNSW Literary Fellowship. The award, with a stipend of \$12,000, is funded by the University's volunteer U Committee. It is presented every two years to a distinguished writer in any field whose work in progress would benefit from a period at the University.

> The Wallace Wurth Memorial Lecture

Former president of the World Bank, James Wolfensohn, delivered the 2006 Wallace Wurth Memorial Lecture in November. Mr Wolfensohn predicted that developing countries will become the dominant economic force in less than 50 years, with India and China, which once commanded 50 percent of the world's GDP, re-emerging as economic powerhouses.

The free public lecture series is named for Wallace Charles Wurth, the University's first Chancellor. Previous speakers have included Sir Robert Menzies, the Dalai Lama, Noam Chomsky, Gerry Adams and Gareth Evans.



East Timorese Prime Minister delivers Hal Wootten Lecture

The Prime Minister of East Timor, Dr Jose Ramos-Horta, delivered the inaugural Hal Wootten Lecture in October. He outlined his concerns for East Timor and a vision for its future. Dr Ramos-Horta has had a long and close relationship with the University's Faculty of Law. As an exiled campaigner for the independence of East Timor he was welcomed into the Faculty as a Visiting Fellow in 1989 where he established the Diplomacy Training Program with Emeritus Professor Garth Nettheim. Professor Hal Wootten AC QC was the Foundation Dean of Law at UNSW. The lecture series commemorates his vision for the Faculty.



Bolwara

Eupomatia laurina

Geographic
distribution
Coastal Qld, NSW
and Vic

Traditional uses
The sticky sweet pulp coating the
seeds is edible.



Illustration: Flora of New South Wales - Botanic Gardens Trust, Sydney

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OPERATIONS AND FINANCIAL MANAGEMENT



YEAR IN REVIEW

2006 saw a range of achievements in the operations and finance portfolios. Among the highlights were a new Occupational Health and Safety management system, a performance management process, Enterprise Agreements for UNSW academic and general staff, key building completions in the North Mall Development Zone, and the successful introduction of a new student organisation, Arc@UNSW.

SUSTAINABILITY

UNSW is committed to becoming the most environmentally friendly campus in Australia.

Environment

The University is well positioned to lead the way in integrating principles of sustainability into our daily operations, through implementation of the 2005–10 Environmental Management Plan. Initiatives include a water saving action plan for the Kensington campus, including installation of waterless urinals and water-efficient fixtures. We have reduced our consumption of potable water by a third over the past seven years and plan to halve usage over the next four years. Other key activities include the development and implementation of Green Star ratings for new buildings, and construction of an aquifer recharge percolation pit that returns 70 percent of stormwater from the campus to the Botany aquifer, which lies beneath the University. It is estimated that 160 million litres will be collected each year.

We have embedded environmental specifications in University contracts for cleaning and commercial food service outlets. We continued to implement energy and water-efficiency measures across campus and we have established UNSW Landcare, with sufficient tree plantings to offset UNSW fleet greenhouse emissions.

UNSW renewed its Collaboration Agreement with Randwick City Council to formalise joint programs focused on sustainability within the Randwick Local Government Area and adjacent communities. Practical outcomes of this relationship include achievements in solar power use, harvesting and recycling of rainwater and stormwater, and monitoring and auditing our ecological footprint.

In 2006 we launched a Bushtucker walk, the first step in the creation of the Green Trail, an integrated network of interpretive eco-tours on the Kensington campus. About 25 Indigenous foods or useful plants are signposted, with more to be planted in 2007. Once the Green Trail is complete it will have three themes: Bushtucker and Biodiversity; Buildings and Technologies; and Programs and People.

Occupational Health and Safety

A new OHS management system for UNSW was developed during 2006, following the reorganisation of OHS and workers' compensation services within the Human Resources group. UNSW achieved a significant success in reducing the number of workplace injuries on campus, with figures from the Risk Management Unit showing an overall drop of 28 percent in workers' compensation claims for 2005. Of those injuries sustained, the majority were less severe, resulting in a reduction in lost time, and a further reduction of 10 percent in lost-time injuries is targeted for 2007.

PERFORMANCE MANAGEMENT

Human Resources

Enterprise Agreements for UNSW academic and general staff were successfully negotiated during 2006, within the parameters of the Federal Government's Higher Education Workplace Relations Requirements. A program of voluntary redundancy for general staff was rolled out during 2006, resulting in a workforce reduction of some 290 positions. Workplace change processes saw the outsourcing of cleaning, security and mailroom functions. Funding of \$200,000 was provided in the UNSW (General Staff) Enterprise Agreement for general staff in levels one to nine to support career development.

In 2006, UNSW received an Employer of Choice for Women citation from the Federal Government's Equal Opportunity for Women in the Workplace Agency (EOWA). The University was singled out for our Gender Equity Project, with the Agency noting that the number of women academics had increased by three percentage points since 2002. In 2004, women were successful in 10 out of 12 applications for promotion to Associate Professor and in 2005, women were appointed to four out of nine newly created senior positions. UNSW initiatives commended by EOWA include the career advancement fund of \$10,000 per person to help female academics returning from maternity leave to re-establish their research careers; scholarships to improve women's PhD completion rate; and a fund for additional childcare costs incurred by female academics presenting papers at conferences in Australia and overseas.

IT Services review

A comprehensive review of the University's central and faculty-based IT services identified a range of opportunities to improve operational efficiency and to reshape the IT governance model. Further analysis of opportunities and implementation of key recommendations commenced in 2006 will continue through 2007.

Business planning

The Division of the Chief Operating Officer undertook a comprehensive business planning process in 2006, developing strategic plans for each operational group. A performance management process was also implemented across the portfolio.

Management

The Division of the Chief Operating Officer (COO) was formed during 2006, and Mr Peter Graham was appointed to the position. The Division brings together key units delivering University-wide operational and support services. It comprises the following areas: Facilities Management, Human Resources, IT Services, Legal and Compliance, Marketing Services, Media and Communications, Property Strategy and Projects, Secretariat Services, Sport and Recreation, the UNSW Art Collection and the UNSW Asia Changi campus project, along with NewSouth Global.

“The Division’s strategic intent is to support UNSW in becoming the best university it can be.”

Peter Graham,
Chief Operating Officer

MAJOR BUILDING PROJECTS

North Mall Development Zone

The North Mall Development Zone (NMDZ) project, the single biggest development project undertaken by the University, saw several milestones reached during 2006. Major buildings completed included the Law Building and the Analytical Centre, as well as refurbishment of the Dalton Building. The NMDZ is designed to create a vibrant new precinct in the middle and lower sections of the Kensington campus. Building work began in late 2004 and is scheduled to conclude by semester two in 2007 on time and within budget.

> Law Building

UNSW’s new Law Building was opened in September by the Chief Justice of the High Court of Australia, the Hon Murray Gleeson AC. Located on the University Mall near Anzac Parade, the building provides state-of-the-art teaching facilities and is specifically designed to promote interaction between staff and students. The building brings together the School of Law, the Australian School of Taxation (Atax), the Faculty’s research and social justice centres, the Freehills Law Library, the Centre for Continuing Legal Education and the Kingsford Legal Centre.

> The Analytical Centre and Dalton Building

The UNSW Analytical Centre in the Chemical Sciences Building is a purpose-built facility that houses the most important major instruments used in the Faculties of Science, Medicine and Engineering for the study of the structure and composition of biological, chemical and physical materials. The Centre, which is designed to foster collaborative research, wraps around the southern and eastern faces of the Applied Science Building. The refurbishment of Levels 1 and 2 of the Dalton Building was completed in August to provide new teaching and office spaces for the School of Chemistry. The ground floor was completed in February 2007.

> Heffron Building

The Heffron Building will become a contemporary academic and teaching facility for the Faculty of Business. External works on the building, including a new façade, are substantially completed. Centrally managed postgraduate teaching space will also be developed. It is scheduled for completion in July 2007.

High Street housing project

A call for detailed proposals was released in 2006 for the delivery of a major student housing development in the Gate 2 precinct on High Street. The project timeline will see delivery of new student accommodation beds on campus for 2010.

CAMPUS LIFE

New student organisation

Throughout the year, student representatives worked with University management to develop and roll out a strategy for ongoing delivery of key functions of student organisations under the Voluntary Student Unionism legislation. The outcome was the establishment of a new student organisation, Arc@UNSW encompassing many of the facilities and functions of the UNSW Student Guild and Postgraduate Board, the University Union, and the College of Fine Arts Students’ Association.

Arc@UNSW was incorporated as a company limited by guarantee in late 2006. A review of the interaction between the University’s sporting facilities and the student-run Sports Association resulted in agreement to merge the Unigym and the Sports Association into a new UNSW Department of Sport and Recreation. Planning and implementation of this initiative will continue in 2007, with the launch of the new organisation anticipated for July.

Management

In 2006 the Finance Division was established as a separate Executive-level portfolio under the Chief Financial Officer, Garry McLennan, reporting directly to the Vice-Chancellor. The CFO has responsibility for financial control, risk management and assurance as well as the management of UNSW Treasury and Investment portfolios.

FINANCIAL MANAGEMENT

UNSW was awarded \$3.7 million under the Federal Government's Workplace Productivity Program for initiatives aimed at improving the University's financial productivity and performance. It was the third largest grant to be awarded. Initiatives include a new procurement policy and improvements to financial processes, which will generate significant annual savings. The grant will also fund a review of the University's corporate structure, aimed at reducing the number of corporate entities.

The University undertook a significant upgrade of its financial systems in 2006 including upgrading PeopleSoft and

installing a new online analytical processing (OLAP) system supplied by OutlookSoft. These systems will ensure that the University has state-of-the-art financial and management information to facilitate increased transparency across UNSW's operations.

The sale and lease-back of the University's 223 Anzac Parade commercial building will provide an additional \$41 million in funding to be applied to the upgrade of UNSW's research and teaching infrastructure.

"Our continuing focus is to deliver additional financial resources for investment in research and teaching."

Garry McLennan,
Chief Financial Officer



^

The Law Building was officially opened by the Chief Justice of the High Court on 21 September.

HR STATISTICS

Table 1: Total number of UNSW staff (headcount as at 31 March 2006)

STAFF TYPE	YEAR					
	2000	2001	2002	2003	2004	2005
Academic	1476	1443	1538	1597	1581	1573
Academic research	356	328	400	396	417	441
Academic/research staff total	1832	1771	1938	1993	1998	2014
General (Level 1–9)	2560	2348	2606	2664	2701	2773
General (Level 10–14)	110	108	130	115	123	165
General staff total	2670	2456	2736	2779	2824	2938
Language teaching	62	63	62	58	53	47
SUB-TOTAL	4564	4290	4736	4830	4875	4999
Casual (FTE)	656	603	699	683	697	660

Table 2.1: Total number of UNSW staff by gender (headcount as at 31 March 2006)

YEAR	GENDER	STAFF TYPES					TOTAL
		Academic	Academic research	General (Level 1–9)	General (Level 10–14)	Language teaching	
2000	Female	377	160	1425	43	47	2052
	Male	1099	196	1135	67	15	2512
	TOTAL	1476	356	2560	110	62	4564
2001	Female	370	144	1307	41	48	1910
	Male	1073	184	1041	67	15	2380
	TOTAL	1443	328	2348	108	63	4290
2002	Female	419	177	1487	55	47	2185
	Male	1119	223	1119	75	15	2551
	TOTAL	1538	400	2606	130	62	4736
2003	Female	453	178	1494	49	46	2220
	Male	1144	218	1170	66	12	2610
	TOTAL	1597	396	2664	115	58	4830
2004	Female	453	182	1554	51	43	2283
	Male	1128	235	1147	72	10	2592
	TOTAL	1581	417	2701	123	53	4875
2005	Female	465	189	1616	68	39	2377
	Male	1108	252	1157	97	8	2622
	TOTAL	1573	441	2773	165	47	4999

Table 2.2: Total percentage of UNSW staff by employment type and gender (as at 31 March 2006)

YEAR	GENDER	STAFF TYPES					TOTAL
		Academic	Academic research	General (Level 1–9)	General (Level 10–14)	Language teaching	
		%	%	%	%	%	%
2000	Female	25.5	44.9	55.7	39.1	75.8	45
	Male	74.5	55.1	44.3	60.9	24.2	55
2001	Female	25.6	43.9	55.7	38	76.2	44.5
	Male	74.4	56.1	44.3	62	23.8	55.5
2002	Female	27.2	44.3	57.1	42.3	75.8	46.1
	Male	72.8	55.7	42.9	57.7	24.2	53.9
2003	Female	28.4	44.9	56.1	42.6	79.3	46
	Male	71.6	55.1	43.9	57.4	20.7	54
2004	Female	28.7	43.6	57.5	41.5	81.1	46.8
	Male	71.3	56.4	42.5	58.5	18.9	53.2
2005	Female	29.6	42.9	58.3	41.2	83	47.5
	Male	70.4	57.1	41.7	58.8	17	52.5

Table 3: Total number of Adjunct, Conjoint and Visiting appointments (as at 31 March 2006)

STAFF TYPE	YEAR					
	2000	2001	2002	2003	2004	2005
Adjunct	121	129	142	143	152	141
Conjoint	453	474	689	869	944	1055
Visitor	481	408	432	454	534	596
TOTAL	1055	1011	1263	1466	1630	1792

Explanatory notes

The above statistics are reported as headcount (actual number of staff) and have been taken as at 31 March each year. The statistics are sourced from the returns provided each year to the Federal Department of Education, Science and Training (DEST). The minor variations in these numbers to previous years can be explained by the difference in timing, and in some cases, to slightly different definitions for determining staff types.

These figures do not include any employees of commercial or otherwise related entities of UNSW. The statistics on casual staff provided in Table 1 are an equivalent full-time figure for the calendar year. These are shown as a total and are not broken down by staff type.

STATUTORY REPORTING



EQUITY AND DIVERSITY

UNSW has again been recognised as an Employer of Choice by the Federal Government's Equal Opportunity for Women in the Workplace Agency (EOWA). The University also received a commendation as one of five finalists in the EOWA Business Achievement Awards.

The Equity and Diversity Unit (EADU) continued to foster and support diversity initiatives across the University. In 2006, UNSW's Director of Equity and Diversity, Jude Stoddart, was honoured with an EDNA award from the Women's Electoral Lobby for her work for women in the workforce. The citation noted her major contribution towards achieving gender equity at UNSW "in initiating and developing a major university-wide program focused on improving the number and levels of academic women in the organisation".

The UNSW Gender Equity Project, in its fourth year, implemented a range of projects across the University covering policy, support and development programs, initiatives to build more inclusive cultures, and further research. The focus for the Project in 2006 included Equity Initiative Grants; Gender Equity Speaker Series; Women's Promotions Workshops; and the Academic Women Leadership Program.

The University sought to ensure that gender equity strategies were integrated into mainstream activities, such as human resources, organisational and staff development, and key academic committees for research and teaching. Examples included:

- > reviewing the impact of gender on the role of Head of School and integration of findings into new Head of School training
- > reviewing strategies to encourage the development of early career researchers and researchers whose careers have been interrupted
- > re-establishing a Women in Research Program

- > reviewing faculty grant allocation processes to ensure women are fairly represented
- > providing input on amending criteria on service for promotion
- > more effective recruitment search processes to ensure that women are represented on short lists
- > marketing the University's family-friendly policies in recruitment materials to attract more female applicants for positions.

As required annually, the EADU submitted a report to the Director of Equal Employment in Public Employment at the Office of Employment Equity and Diversity. Key equity priorities for women and equity group staff were identified in the report as well as key strategies to address priorities. The University was waived from reporting to EOWA until the end of 2007.

The 2006 Student Equity Update and Statement of Eligibility for Higher Education Equity Support Program Funds were submitted to DEST. These reports constitute a significant element of the Institutional Assessment Framework and outline the representation of students from equity groups at UNSW and the initiatives to improve their performance.

Full reports are available on the EADU's website www.equity.unsw.edu.au

ETHNIC AFFAIRS PRIORITY STATEMENT

UNSW is committed to promoting positive values and attitudes towards the diverse cultural, religious and linguistic needs of its staff and student body and the communities we serve. The University promotes and celebrates diversity among students and staff by bringing multiple perspectives to learning and encouraging social equity.

UNSW has a diverse population with students and staff representing 126 language and cultural groups. Of our 38,188 students (headcount) in 2006, 16,979 (44.5 percent) spoke a language other than English at home. Of these, 11,216 (29.4 percent) were local students and 5,763 (15.1 percent) were international students

UNSW priority areas for the enhancement and support of our diverse student population include:

- > equipping students with the skills to operate effectively in a global world by embracing culturally sensitive teaching methods, assessment and review provisions, and an inclusive campus experience
- > ensuring that the student body is drawn from a diverse community and that equity groups enjoy the same chance of success as other students
- > providing a "whole university" approach to the development of an educational experience which facilitates students' transition to university and supports the success and retention of target equity groups.

Of UNSW's workforce, 31 percent of general staff and 26 percent of academic staff indicated that English was not their first language. To support these staff, the Workplace English Program offered tailored and needs-based programs to develop and improve their professional English language and literacy skills.

UNSW has fulfilled its statutory obligations under the *Principles of Multiculturalism Act 2000* (NSW).

The full Statement is available on the EADU's website www.equity.unsw.edu.au

FREEDOM OF INFORMATION

UNSW publishes an annual *Statement of Affairs* that includes information on the structure and functions of the University, how the University's functions affect members of the public and how the public can participate in the formulation of policy by the University. Various kinds of documents held by the University are described and the procedures for obtaining access to documents are detailed.

At six-monthly intervals a *Summary of Affairs* is published in the *Government Gazette*. The public also has a legally enforceable right to obtain access to these documents and to ensure that personal records held by the University are not incomplete, incorrect, out of date or misleading. Information regarding FOI is included in relevant University publications and documents. The University's *Summary of Affairs*, *Statement of Affairs* and policy documents are available on the University website.

The University continued to receive an unprecedented number of applications in 2006. Twenty-two applications were dealt with including two applications brought forward from 2005. Seven internal reviews were conducted and five external reviews were finalised. Additional resources continued to be directed towards the management of FOI applications. A single applicant generated more than half of all FOI applications dealt with by the University.

FOI STATISTICAL SUMMARY 2006

Section A: Numbers of new FOI requests

FOI requests	Personal	Other	Total
A1 New (including transferred in)	10	10	20
A2 Brought forward	0	2	2
A3 Total to be processed	10	12	22
A4 Completed	9	11	20
A5 Transferred out	0	0	0
A6 Withdrawn	0	0	0
A7 Total processed	9	11	20
A8 Unfinished (carried forward)	1	1	2

Section B: What happened to completed requests?

Result of FOI request	Personal	Other
B1 Granted in full	1	0
B2 Granted in part	7	5
B3 Refused	1	6
B4 Deferred	0	0
B5 Completed	9	11

Section C: Ministerial Certificates

C1 Ministerial Certificates issued	0
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Section D: Formal consultations

D1 Number of requests requiring formal consultations	Issued: 3	Total: 3
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Section E: Amendment of personal records

Result of amendment request	Total
E1 Result of amendment – agreed	0
E2 Result of amendment – refused	0
E3 Total	0

Section F: Notation of personal records

F1 Number of requests for notation	0
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Section G: FOI requests granted in part or refused

Number of times each reason cited in relation to completed requests that were granted in part or refused

Basis of disallowing or restricting access	Personal	Other
G1 Section 19 {application incomplete, wrongly directed}	0	0
G2 Section 22 {deposit not paid}	0	3
G3 Section 25 (1) (a1) {diversion of resources}	0	1
G4 Section 25 (1) (a) {exempt}	7	6
G5 Section 25 (1) (b), (c), (d) {otherwise available}	0	1
G6 Section 28 (1) (b) {documents not held}	2	0
G7 Section 24 (2) {deemed refused, over 21 days}	0	4
G8 Section 31 (4) {released to Medical Practitioner}	0	0
G9 Totals	9	15

Section H: Costs and fees of requests processed

	Assessed costs	FOI fees received
H1 All completed requests	\$9615	\$375

Section I: Discounts allowed

Type of discount allowed	Personal	Other
I1 Public interest	0	0
I2 Financial hardship - pensioner/child	1	0
I3 Financial hardship - non-profit organisation	0	0
I4 Totals	1	0
I5 Significant correction of personal records	0	0

Section J: Days to process

Number of completed requests by calendar days taken to process

Elapsed time	Personal	Other
J1 0–21 days	5	2
J2 22–35 days	3	5
J3 Over 35 days	1	4
J4 Totals	9	11

Section K: Processing time

Number of completed requests by hours taken to process

Processing hours	Personal	Other
K1 0–10 hrs	6	2
K2 11–20 hrs	2	4
K3 21–40 hrs	1	4
K4 Over 40 hrs	0	1
K5 Totals	9	11

Section L: Reviews and appeals

Number finalised during the period

Processing hours	
L1 Number of internal reviews finalised	7
L2 Number of ombudsman reviews finalised	0
L3 Number of appeals to the Administrative Decisions Tribunal finalised	5

Details of internal review results

Basis of internal review	Personal		Other	
	Upheld	Varied	Upheld	Varied
L4 Access refused	0	0	1	1
L5 Deferred	0	0	0	0
L6 Exempt matter	1	2	0	2
L7 Unreasonable charges	0	0	1	0
L8 Charge unreasonably incurred	1	0	0	0
L9 Amendment refused	0	0	0	0
L10 Totals	2	2	2	3

PRIVACY

UNSW maintains a general policy of openness regarding the information it holds subject to the *Freedom of Information Act 1989* (NSW), and the privacy rights of individuals set out in the *Privacy and Personal Information Protection Act 1998* (NSW), the *Health Records and Information Privacy Act 2002* (NSW) and the *Privacy Act 1988* (Cth). Where applicable, the privacy principles embodied in the legislation are being incorporated into policy, guidelines, procedural documents and practices at the University. The University's Privacy Management Plan is under review. During 2006, four internal reviews under Part 5 of the NSW legislation were conducted.

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