

# Annual Report 2015

## UNSW Australia

Never Stand Still

# Our 2025 commitment

By 2025, UNSW will be Australia's Global University and a leading research-intensive and teaching-intensive university, delivering:

1. **World-leading research** of the highest ethical standards and integrity, across the full spectrum of arts, built environment, business, design, law, social sciences, engineering, medicine and science.
2. **Research impact** through the generation of new knowledge applied to solve complex problems, deliver social benefits and drive economic prosperity, locally, nationally and globally.
3. **Exemplary education** for every student through integrating the most innovative developments in digital and face-to-face learning into novel solutions, to improve educational quality and the student experience.
4. **In-demand graduates** optimally prepared for the opportunities and challenges of the 21st century global workplace and motivated by a desire to make a positive impact on society.
5. **Equality of opportunity** for all our students, staff and the wider UNSW community, combined with a commitment to the active promotion of equality beyond the University.
6. **Thought leadership** harnessing UNSW's intellectual capacity to deliver expert contributions to lead and inform debate, policy making and global issues.
7. **A significant contribution to national and global prosperity** through innovative, transformative partnerships with community, industry, government and our alumni, facilitating the translation of research and education into economic and social benefits.
8. **Excellence in international education** leading the world in educating students from overseas, through our innovative and flexible educational platform, offering a truly global experience to all of our students.
9. **Partnerships** with other great institutions in Australia and across the globe, which share our ethos and can collaborate with us in achieving our strategic goals.
10. **Social justice** achievements built on UNSW's work with disadvantaged and marginalised communities in Australia, the Asia-Pacific and globally.

## UNSW Annual Report 2015 – Volume 1

02	Message from the President & Vice-Chancellor
03	Message from the Chancellor
05	At a Glance
06	Snapshot
10	Year in Review
14	Governance
16	Leadership
20	Academic Excellence
22	Research & Teaching Awards
24	Social Engagement
26	Global Impact
28	Enabling Delivery of our Strategy

The University's 2015 Financial & Statutory reports are in Volume 2.



Cover Image: Rising star Dr Xiaojing Hao is developing next-generation photovoltaic technology to transform the global solar market. Read more about Xiaojing's work and other groundbreaking UNSW research in *20 rising stars who will change our world*, part of the *Research@UNSW* series. Photo: Quentin Jones



# Message from the President & Vice-Chancellor

It is my pleasure to present UNSW's Annual Report for 2015, my first year as President and Vice-Chancellor.

2015 has been significant on many fronts. A key step was the development of a strategy that would set our priorities for the next 10 years and position UNSW as Australia's Global University, among the world's top 50. We pursue this aspiration not to celebrate our position in a league table but in the belief that a great university, which is a global leader in discovery, innovation, impact, education and thought leadership, can make an enormous difference to people's lives.

In October we launched the UNSW 2025 Strategy after extensive consultations with staff, students, alumni and external partners. At its core are three priorities: academic excellence in research and education, social engagement and global impact.

Supporting the launch was a Deloitte Access Economics report, which for the first time put a dollar value on universities' contribution to the economy. It found the research output of UNSW alone contributed \$15 billion to the Australian economy in 2014. As a whole, the university sector contributed \$160 billion, or about 10% of GDP. This is more than Australia's mining sector.

As Australia transitions to a knowledge economy, governments and industry will increasingly look to universities to help translate great ideas into social and economic prosperity. To boost our innovation culture, in June we launched an Australia-first innovation hub, The Michael Crouch Innovation Centre, to nurture student innovation across all disciplines and foster strong two-way connections with business.

I was pleased to see UNSW staff secured more than \$36 million in Australian Research Council grants in 2015, the most in the state and the third largest amount nationally. We also won close to \$60 million from the National Health and Medical Research Council, including major grants for work on Alzheimer's disease.

“**As part of the 2025 Strategy, we are working on an ambitious program of expansion.**”

A notable announcement was the federal government's pledge of \$26 million over five years to the ARC Centre for Quantum Computation and Communication Technology, headquartered at UNSW. The Centre, directed by Scientia Professor Michelle Simmons, leads the world in the race to build the first quantum computer in silicon. Within days of the announcement, the Commonwealth Bank and Telstra followed suit, each pledging \$10 million.

Honours flowed for individual researchers too, including chemical engineer Cyrille Boyer, awarded a prestigious Prime Minister's Science Prize; Scientia Professor Michelle Simmons, who was named a fellow of the American Association for the Advancement of Science; and human rights lawyer Megan Davis, who was elected Chair of the United Nations permanent forum on Indigenous issues.



We continue to attract students of impressive calibre. The median ATAR of our first-year school leavers was the highest in the State and we were once again the destination of choice for the highest percentage of the top 500 students' first preferences.

Computing students won the RoboCup soccer world championships for the second year running; the Sunswift solar racing car, the world's fastest electric car, ended the World Solar Challenge race in fourth place after traversing more than 3000 km powered entirely by the sun; and James Haw from UNSW Canberra and Harj Narulla from UNSW Law were named 2016 Rhodes scholars – Harj becoming the fourth UNSW Law student in three years to win the coveted Oxford University scholarship.

UNSW's leadership in Indigenous education is a point of personal and institutional pride and it was gratifying to see eight Indigenous doctors graduate from UNSW Medicine – the most in a single year. A record number of Indigenous PhD students also completed their studies.

The University continued its sound financial management and ended the year with a group operating result of \$11 million after adjustment for one-off system valuation write-downs. As part of the 2025 Strategy, we are working on an ambitious program of growth and expansion. Implementing the strategy will require strategic investment of \$3 billion matched by a funding program, part of which will involve the University incurring a planned deficit for two successive years as funding initiatives are launched.

These are just some highlights from a remarkable year. Our 2025 Strategy contains ambitious goals and we are in a strong position to make them a reality. I commend this report to you and look forward to sharing our progress in future reports.

**Professor Ian Jacobs**

# Message from the Chancellor

At the beginning of 2015 we welcomed Professor Ian Jacobs to UNSW as our new President and Vice-Chancellor. Under his leadership UNSW has continued to excel on all fronts and he is shaping an exciting new vision for the University's future.

One of Professor Jacobs' first priorities was to develop a comprehensive strategy that would sustain our progress over the next decade, and beyond. We have been steadily climbing global rankings, and our goal is to be counted among the very best universities in the world. It's an ambitious objective but one worthy of where we stand at the present time. The University Council and I are totally committed to supporting the strategy and seeing its vision come to fruition.

At UNSW we have a history of innovation and an exceptional track record of delivering research outcomes with practical benefits, and innovative teaching that enriches the lives of students. As part of the 2025 Strategy, we will continue to make strides in these areas. We will also continue to focus on social justice, the grand challenges facing our society, such as climate change and mental health, and we will ensure our global impact by forging strategic partnerships with the very best international institutions.

One way we are working toward these goals is by continuing the renewal of our campus. In July, we opened the new Mechanical and Manufacturing Engineering precinct. This \$67-million redevelopment, including the new Ainsworth Building, named after philanthropist and businessman Len Ainsworth, is now home to more than 1600 of Australia's future engineers. It features state-of-the-art equipment, laser and mechatronics labs, as well as wind tunnels and a flight simulator.

We have also opened a new Materials Science and Engineering building, which is home to the Michael Crouch Innovation Centre. This hub for student ingenuity will help our students and future leaders think like innovators. I'm delighted that the centre's catchphrase – find a better way – is inspired by Michael's approach to innovation and philanthropy.

“**The 2025 Strategy is an obvious next step for a university that has achieved so much in only 67 years.**”

The University continues to be indebted to its generous benefactors and industry partners. In 2015, UNSW's Faculty of Built Environment announced a \$10 million endowment from philanthropist Judith Neilson to create a research Chair to help develop affordable housing for the tens of millions of people around the world being displaced from their homes. Telstra and the Commonwealth Bank each pledged \$10 million to support our critical research into quantum computing, and we also welcomed a \$5 million gift from the Financial Markets Foundation for Children, which will help establish a UNSW Chair in Paediatric Population Health. A first for NSW, the Chair will take on a new leadership role and help create fairer health outcomes for all Australian children.



The 2025 Strategy is an obvious next step for a university that has achieved so much in only 67 years. The senior management team has developed clear goals and these will enable continued campus growth and renewal, the recruitment and retention of outstanding academics and professional staff, a significant increase in philanthropic donations, more competitive research grants, and a bolstered international reputation.

I am excited to be part of this next transformation for UNSW and I thank the University's Council, management, staff, alumni and other friends for their enormous efforts and support without which none of this could occur.

**Mr David Gonski AC**

## Annual Report of The University of New South Wales

In accordance with the *Annual Reports (Statutory Bodies) Act 1984 (NSW)*, UNSW presents to the Honourable Adrian Piccoli MP, Minister for Education, the following report of its proceedings for the period 1 January to 31 December 2015.

**Professor Ian Jacobs**  
President and Vice-Chancellor

**Mr David Gonski AC**  
Chancellor



# At a Glance



The foyer of UNSW Medicine's Wallace Wurth building. Photo: Brett Boardman



## About UNSW Australia

Established in 1949 with a unique focus on the scientific, technological and professional disciplines, UNSW is a leading Australian university committed to making a difference through pioneering research and preparing the next generation of talented global citizens for career success.

UNSW has a proud tradition of sustained innovation, focusing on areas critical to our future – from climate change and renewable energies to lifesaving medical treatments and breakthrough technologies. In the social sciences, UNSW research informs policy and expert commentary in key issues facing society ranging from human rights and constitutional recognition of Indigenous Australians to public health and population ageing.

UNSW offers an extensive range of undergraduate, postgraduate and research programs. We attract talented students from across Australia and around the world. Our almost 55,000 students come from 128 countries, making us one of Australia's most cosmopolitan universities. Our emphasis on quality continues to push up entry standards – in 2015 we had the highest median ATAR in NSW and attracted the largest percentage of the State's top 500 school leavers.

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

## Making a difference as Australia's Global University

Our aspiration for the next decade is to establish UNSW as Australia's Global University, improving and transforming lives through excellence in research and education and a commitment to advancing a just society. We aspire to this in the belief that a great university, which is a global leader in discovery, innovation, impact, education and thought leadership, can make an enormous difference to the lives of people in Australia and around the world.

Ranked in the world's top 100 universities, UNSW is a founding member of the Group of Eight and the prestigious Universitas 21 international network. It is the only Australian member of the Global Alliance of Technological Universities and is also a member of the Association of Pacific Rim Universities and a partner in the emerging PLoS Alliance with King's College London and Arizona State University.

## Values

In pursuing our vision and objectives, members of the UNSW community will demonstrate the following values:

- Partnership – working in teams to best serve our communities
- Integrity, transparency and ethical decision making, inspiring openness, courage and trust
- Respect – listening and engaging with each other and our communities.



# 2015 Snapshot

(as at 31 December 2015)

## STUDENTS

<b>54,043</b> STUDENTS	<b>39,651</b> LOCAL STUDENTS	<b>14,392</b> INTERNATIONAL STUDENTS
<b>40,174</b> STUDENT LOAD (EFTSL)	<b>19,777</b> COMMENCING STUDENTS	<b>279,226</b> ALUMNI

## STAFF

<b>6,228</b> TOTAL STAFF 5,695 full-time equivalent	<b>FEMALE 1,110</b> <b>MALE 1,754</b> ACADEMIC STAFF	<b>FEMALE 2,152</b> <b>MALE 1,212</b> PROFESSIONAL STAFF
---	--	--

## 2015 Financial Summary

	CONSOLIDATED	
	2015	2014
		(restated)
	\$'000	\$'000
Total revenue and income	1,761,317	1,747,147
Employee costs	(964,009)	(942,056)
Other expenses	(719,804)	(675,041)
<b>Accounting result</b>	<b>77,504</b>	<b>130,050</b>
<b>Restricted for specific purposes:</b>		
Philanthropic funds	(17,668)	(16,670)
Capital grants	(6,720)	(20,776)
Specific purpose grants	(24,382)	(11,576)
<b>Non-core operating:</b>		
Investment funds	(30,509)	(52,017)
Extraordinary items <sup>1</sup>	-	(18,309)
<b>Operating surplus/(loss)<sup>2</sup></b>	<b>(1,775)</b>	<b>10,702</b>

<sup>1</sup> Recognition of the Commonwealth and NSW Governments' agreement to fund the State Authorities Non-contributory Superannuation Scheme (SANCS) liabilities.

<sup>2</sup> The operating loss in 2015 includes a one-off accounting adjustment of \$13m relating to systems valuation. Without this adjustment, the Operating result would be an \$11m surplus

8 FACULTIES

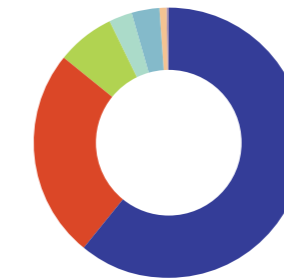
1 COLLEGE

47 SCHOOLS

125 UNSW AND EXTERNAL CENTRES AND INSTITUTES

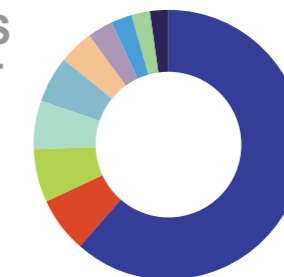
18 ON-CAMPUS COLLEGES AND AFFILIATED STUDENT ACCOMMODATION

4,202 ACADEMIC VISITORS  
(420 full-time equivalent)



### Students by Level of Program

32,970	Bachelor and Diploma
13,497	Masters Coursework
3,707	Doctorate
1,594	Grad Dip and Grad Certificate
1,717	Enabling and Non-Award
557	Masters Research
1	Postgraduate Qualifying



### Top 10 Countries of Origin for International Students<sup>#</sup>

7,386	China (excluding Hong Kong)
796	United States of America
762	Hong Kong
725	Malaysia
649	Indonesia
507	Singapore
376	India
280	Vietnam
279	Brazil
254	Republic of Korea

<sup>#</sup> Full-Degree and Non-Award



Aerial view of the UNSW Kensington campus. Photo: Ethan Rohloff



The University is ranked

46<sup>th</sup>

in the 2015 QS World University Rankings.

Best MBA



The MBA program offered by AGSM@UNSW is recognised as one of the finest in the world by the *Financial Times* (UK) 2015 ranking of the top 100 global MBA programs.



### 18 Subjects in World's Top 50

- |                                     |   |
|-------------------------------------|---|
| 12 Accounting and finance           | 37 Mechanical, aeronautical & manufacturing engineering |
| 14 Civil and structural engineering | 38 Electrical and electronic engineering                |
| 15 Psychology                       | 40 Environmental sciences                               |
| 15 Law                              | 41 Education  |
| 19 Business and management studies  | 43 Medicine   |
| 22 Architecture                     | 45 Economics & econometrics                             |
| 25 Art and design                   | 46 English language and literature                      |
| 26 Materials sciences               | 49 Communication and media studies                      |
| 28 Chemical engineering             |   |
| 35 Computer science                 |   |

## Research Excellence



UNSW researchers won the highest amount of Australian Research Council funding in the state, and ranked third in Australia.

## Leader in Education

UNSW is a founding member of both the Group of Eight – a coalition of Australia's leading research-intensive universities – and the prestigious Universitas 21 international network.

UNSW is the only Australian member of the Global Alliance of Technological Universities; is a member of the Association of Pacific Rim Universities; and is a partner of Coursera, the largest provider of MOOCs in the world.



APRU

Association of Pacific Rim Universities

## FACULTIES

- ART & DESIGN
- ARTS & SOCIAL SCIENCES
- BUILT ENVIRONMENT
- BUSINESS
- ENGINEERING
- LAW
- MEDICINE
- SCIENCE

### UNSW CANBERRA

Unique in Australia, UNSW Canberra at the Australian Defence Force Academy provides undergraduate education for officer cadets as well as postgraduate programs in arts, business, engineering, IT, management and science, which are open to all students.

More of Australia's top CEOs who lead ASX 200 companies studied at UNSW than any other university.

(Leading Company 2012)

UNSW boasts the largest number of millionaire alumni of any university in Australia.

(Spear's WealthInsight 2014)

Founding partner ATP Innovations: World's no.1 Technology incubator (2014 International Business Innovation Association Incubator of the Year)

(Spear's WealthInsight 2014)

UNSW has produced more technology entrepreneurs in the past 15 years than any other Australian university.

(CrunchBase 2013)

Biggest student start-up program in Australia

(562 programs supported since 2014)

The country's top 30 employers hire more graduates from UNSW than any other Australian university.

(LinkedIn survey, 2015)

Top performing easy access IP organisation worldwide

(UK 2015 report)



# 2015 in Review

## January

### Healthy brains

Researchers help discover five genetic variants that influence normal brain development. The findings, published in *Nature*, could improve the understanding of neuropsychiatric illnesses.

### Women in STEM

Scientia Professor and ARC Laureate Fellow Veena Sahajwalla launches UNSW's Science 50:50 program, which aims to encourage more women into science and engineering-related careers.

### Architecture gift

UNSW Built Environment receives a \$10 million gift from philanthropist Judith Neilson to help transform the lives of some of the world's most vulnerable people.

### Gandhi Oration

Peace activist Ela Gandhi delivers the annual Gandhi Oration at UNSW, which commemorates the life and teachings of her grandfather Mahatma Gandhi.

### Spotlight on research stars

UNSW and ABC Radio National team up to present the Top 5 under 40 – an exciting initiative that will give a voice to the next generation of Australia's leading researchers.

## February

### New President and VC

President and Vice-Chancellor Professor Ian Jacobs begins his term and outlines his aspirations for the University.

### Q-fly genome mapped

Scientists achieve a world first by sequencing the complete genome of Australia's worst agricultural pest, the Queensland fruit fly.

### Fulbrights take flight

In a record-setting year for UNSW, five staff members and graduates receive prestigious Fulbright scholarships to study in the US.

### Forgotten Australians

A UNSW-led study investigating the impact of 500,000 'Forgotten Australians' who grew up in care is launched by Justice Peter McClellan, chair of the Royal Commission into Institutional Responses to Child Sexual Abuse.

### Drinking water quality

Environmental engineer Stuart Khan is appointed to a top World Health Organisation advisory group to help draft global drinking water guidelines.

## March

### Decoding Aboriginal legends

UNSW's Indigenous Astronomy Group finds evidence linking Aboriginal legends of meteorite strikes to 4,700-year-old impact craters. Their findings suggest Indigenous stories hold clues to Australia's ancient natural history.

### Woman of the year

UNSW pancreatic cancer researcher Professor Minoti Apte is named the 2015 NSW Woman of the Year for her contributions to medical research, tertiary education and the Indian community.

### Risky Business

Malcolm Turnbull joins Vice-Chancellor Professor Ian Jacobs for a public event at UNSW about how to best manage risk: in life, politics, business, climate change and research.

### Top three in Australia

The Nature Publishing Index, which ranks institutions based on high-impact scientific research publications, places UNSW in the top three in Australia.

## April

### Quantum breakthrough

A UNSW team led by Associate Professor Andrea Morello successfully encodes quantum information into silicon for the first time. Their findings, reported in *Science Advances*, bring scalable quantum computers closer to reality.

### Road safety

Australia's largest study into everyday driving behaviour is launched, led by UNSW's Transport and Road Safety Research group.

### UN appointment

Human rights lawyer Professor Megan Davis is elected Chair of the United Nations' permanent forum on Indigenous issues.

### Business subjects lead

UNSW claims the top spot nationally for Accounting and Finance in the 2015 QS World University Rankings. UNSW records 18 subjects in the world's top 50.

### Energy for all

Graduates Ben Merven and Monique Alfris co-found Pollinate Energy, an innovative social enterprise delivering affordable solar-powered lighting to millions of India's poorest people.

## May

### Contact lens innovation

The world's first Extended Depth of Focus contact lens, invented at the Brien Holden Vision Institute at UNSW, is granted approval by the US Food and Drug Administration.

### Traffic solution nets prize

A team of students wins first prize in the inaugural Universitas 21 Global Ingenuity Challenge for their innovative solution to reduce urban traffic congestion.

### AustLII turns 20

Australia's largest and most popular free online legal resource celebrates its 20th anniversary. Co-founded by law professor Graham Greenleaf, AustLII now boasts 670 databases and receives 600,000 hits daily.

### Sydney Film Festival

UNSW Arts & Social Sciences becomes a major partner of the Sydney Film Festival.

### Top employers seek UNSW grads

Graduates from UNSW are the most sought after by Australia's top 30 employers, according to a report by the professional networking site LinkedIn.

## June

### Design awards

Design student Max Glanville is named the Hills Young Australian Designer of the Year for an early warning system to protect residential properties from bushfires.

### Hawking launches BQI

Renowned physicist Stephen Hawking launches UNSW's Big Questions Institute (BQI), a new research centre dedicated to solving some of the Universe's most fundamental mysteries.

### Indigenous PhDs

Four Indigenous students graduate with PhDs – a single-year record for the University.

### World Bank appointment

Professor Peter Saunders from the Social Policy Research Centre is one of 24 leading international economists appointed to the World Bank Commission on global poverty.

### Adam Goodes honoured

The former Australian of the Year and AFL star is awarded an honorary Doctor of Letters – UNSW's highest honour – for his dedication to reconciliation and community service.

## July

### Engineering powerhouse

UNSW again dominates the annual list of Australia's Top 100 Most Influential Engineers, compiled by *Engineers Australia* magazine.

### Linkage grant success

UNSW researchers top the country, receiving more than \$32 million in government and industry funding from the Australian Research Council's Linkage Projects scheme.

### Turnbull opens engineering precinct

Malcolm Turnbull joins businessman and philanthropist Len Ainsworth to open the new \$67 million Mechanical and Manufacturing Engineering precinct at UNSW.

### Robot champs

Engineering students win their second consecutive Robocup world soccer championship in China, beating an elite German squad 3-1 in the final.

### Solar promise

Opposition leader Bill Shorten visits UNSW to meet with the "best solar researchers in the world" and reiterates Labor's pledge to generate 50% of Australia's electricity from renewable sources within 15 years.

## August

### Dementia support

Dementia research at UNSW gets a major funding boost as researchers receive close to \$13 million for two projects from the National Health and Medical Research Council.

### Rankings climb

UNSW improves five spots (now 125) in the 2015 Academic Ranking of World Universities, and is once again the top Australian university in Engineering/Technology and Computer Sciences.

### Future leaders

Engineering co-op student Laura Sacks represents Australia as a delegate at the Y20 Youth Summit in Istanbul, Turkey.

### Judith Neilson Chair appointed

Professor David Sanderson, an expert in urban disaster resiliency and humanitarian aid, is appointed the inaugural Judith Neilson Chair in Architecture at UNSW.

### New Colombo Plan

Minister for Foreign Affairs Julie Bishop announces funding of \$1.5 million in mobility grants to UNSW students over three years as part of the New Colombo Plan.

## September

### Eureka moment

UNSW scientists working on quantum computing, threatened ecosystems and marine science win prestigious Australian Museum Eureka Science Prizes.

### Top 50 in the world

UNSW continues rising in the top 50 of the QS World University Rankings, moving up two spots to 46, thanks to stellar employer and academic reputation, and big jumps in subject rankings.

### Innovation hub unveiled

UNSW opens the Michael Crouch Innovation Centre to nurture student innovation across all disciplines and foster strong two-way connections with business.

### Teachers honoured

Four staff members are recognised at the 2015 Australian Awards for University Teaching, for their innovative approach to teaching and commitment to improving learning outcomes.

### Social Policy Conference

UNSW hosts the Australian Social Policy Conference, bringing together 300 of the world's top researchers and policy makers.

## October

### Women of influence

Scientia Professors Jane McAdam and Veena Sahajwalla win their respective categories in the prestigious 2015 Women of Influence awards, sponsored by the *Australian Financial Review* and Westpac.

### PM's Science Prize winner

For his innovative work using light to create functional polymers, Cyrille Boyer wins the 2015 Malcolm McIntosh Prize for Physical Scientist of the Year. The honour, which carries a \$50,000 reward, is one of the Prime Minister's Science Prizes.

### Tall Poppies

UNSW physicist Dane McCamey is named the NSW Young Tall Poppy of the Year. He is one of four UNSW researchers recognised at the annual Young Tall Poppy Awards.

### Fourth Rhodes scholar in three years

Harj Narulla is the fourth UNSW Law student in three years to win a coveted Rhodes Scholarship to Oxford University.

### Helping vulnerable children

The Financial Markets Foundation for Children, which includes all the major banks, makes a \$5 million gift to help establish a UNSW Chair in Paediatric Population Health, a first for NSW.

## November

### Climate for change

Ahead of the UN Climate Change Conference in Paris, UNSW partners with Fairfax Media to host a special public forum 'Climate for Change'. Climate change is the first of the global 'Grand Challenges' identified in UNSW's 2025 Strategy.

### Historic partnership

UNSW and the University of Sydney announce an historic medical research partnership to help tackle two enormous challenges – mental illness and addiction.

### CSIRO honour

UNSW Pro-Vice-Chancellor (Research) Brian Boyle receives the CSIRO's highest honour – the Chairman's Medal – for his pioneering work on a next-generation radio telescope, the Australian Square Kilometre Array Pathfinder.

### Honorary degree

UNSW awards former Sex Discrimination Commissioner and alumna Elizabeth Broderick an honorary degree for her "eminent service to both the Australian and international community".

## December

### Quantum secures major investments

The UNSW-based ARC Centre for Quantum Computation and Communication Technology will receive \$26 million from the federal government over the next five years, and an additional \$20 million from the Commonwealth Bank and Telstra.

### Australia-at-Large Rhodes Scholar

UNSW Canberra graduate Lieutenant James Haw is named the 2016 Australia-at-Large Rhodes Scholar. Haw will study social anthropology at Oxford University, focusing on the impacts of military operations on tribal societies.

### Innovation statement

UNSW releases its Innovation Statement to coincide with the federal government's National Innovation and Science Agenda.

### Outstanding research

UNSW scores world-class results in the ARC's 2015 Excellence in Research for Australia analysis, which benchmarks the country's research against international standards.

### Ovarian cancer screening

One of the largest randomised trials ever conducted, led by Vice-Chancellor Professor Ian Jacobs, concludes that ovarian cancer screening may reduce mortality by an estimated 20%.





### UNSW Law wins fourth Rhodes Scholarship in three years

Harj Narulla, 25, has become the fourth UNSW Law graduate in three years to win a prestigious Rhodes Scholarship to attend Oxford University. He joined UNSW Canberra graduate Lieutenant James Haw as a UNSW Rhodes Scholar for 2016.

Lieutenant Haw, who will study anthropology at Oxford, was the Australia-at-Large scholarship winner. Narulla (pictured above) plans to study comparative constitutional law, and hopes to identify models that might prove useful for bringing about constitutional recognition of Aboriginal and Torres Strait Islander peoples in Australia. He says he became interested in legal issues affecting Indigenous people when he came to UNSW: "Coming from Tasmania, living on campus was the first time I'd really had the chance to meet Indigenous students from around the country," says Narulla. "From that, I got involved in tutoring and mentoring programs and worked with the Aurora Project and the Indigenous Law Centre." When he returns from the United Kingdom, he hopes to work for the Aboriginal Legal Service.

Narulla follows in the footsteps of UNSW Arts/Law graduate Sean Lau (2015 NSW Rhodes Scholar), Emily Burke (one of three Australia-at-Large scholarship winners for 2015) and UNSW Arts/Law graduate Kunal Sharma (2014 NSW Rhodes scholarship). Coincidentally, all four scholars began their studies at UNSW Law in 2008. "The format and teaching at UNSW Law is exceptional," Narulla says. "There's a focus on being as well-rounded as possible. In that environment, it's easy to get caught in the slip-stream of engagement and achievement."

*Photo: Grant Turner/Mediakoo*



### Student start-up goes all the way to the International Space Station

Australia's space industry is making a giant leap into the 21st century thanks to starry-eyed high schoolers and an innovative start-up called QubeRider, co-founded by UNSW student and space entrepreneur Solange Cunin (pictured above). QubeRider, which currently operates out of a Telstra-backed accelerator program in Sydney, will send the first Australian-owned payload to the International Space Station in July 2016. The small payload, about the size of a large coffee mug, will launch aboard the SpaceX Falcon 9 Rocket from Cape Canaveral, Florida. It will include dozens of "data-driven" software experiments developed by close to 1000 students, from up to 40 high schools across NSW. "It's a monumental achievement for Australia and it's being made by a bunch of 14-year-olds," says Cunin, a fifth-year aerospace engineering and maths student at UNSW.

In 2015, she co-founded QubeRider with UTS student Sebastian Chaoui. Initially conceptualised as a "ride-sharing" service to space, QubeRider wanted to help lower the cost of launching small-scale science experiments into orbit. After being accepted into Telstra's Muru-D accelerator program, however, its focus shifted to developing STEM education programs. The QubeRider Space Program includes hardware kits with sensors, lesson plans and the opportunity to send your experiment to the ISS.

"We want to give students a unique experience and help them engage more meaningfully with STEM subjects," says Cunin. "Giving a student a space mission is probably the best way to do that. I would love to see every school giving their year nine students a space mission every year. That would be amazing. That's our big dream."

*Photo: Grant Turner/Mediakoo*



## UNSW Council

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

### UNSW Council

The University is governed by a Council of 15 members led by the Chancellor under the *University of New South Wales Act 1989* ("The Act"). Members represent the interests of the University and the community, contributing expertise in a range of areas, including finance, commercial activities, law, governance and management, and planning and development.

The Council has Finance, Audit, Risk, Nominations and Remuneration, and Honorary Degrees committees.

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

### Official Members (as at 31 December 2015)

#### Ex-Officio

##### Chancellor

Mr David M. Gonski AC  
BCom, LLB UNSW, FAICD (Life), FCPA

##### President and Vice-Chancellor

Professor Ian Jacobs  
BA, MA *Cam* MBBS *UCL MD London* FRCOG

##### President, Academic Board

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

##### Ministerial appointment

Mr Brian Long FCA

##### Pro-Chancellor

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

##### Elected members

Mr Billy Bruffey

Associate Professor Dorottya Fabian  
BMus (Hons) *Liszt Ferenc Academy of Music Budapest*,  
MMus PhD *UNSW*, FAHA

Ms Emma Lovell  
BE (Hons) *Chemical Engineering UNSW*

Mr Aaron Magner  
BEc *Macquarie*, MEM LLM *UNSW*

Scientia Professor John Piggott  
BA *Sydney*, MSc PhD *London*, FASSA

### Members appointed by Council

Dr Jennifer Alexander  
MB BS MCom MHP *UNSW*, FRACMA FAFPHM FAICD  
Pro-Chancellor

Ms Maxine Brenner  
BA LLB *UNSW*

Mr Nicholas Carney  
BCom LLB *UNSW*, MAICD

Mr Matthew Grounds  
BCom LLB *UNSW*

Mr Warwick Negus  
BBus *UTS*, MComm *UNSW*, SF Fin

### Former members

The following person was a Council member from the beginning of the year and completed his term of office as Vice-Chancellor on 31 January 2015:

Professor Frederick G. Hilmer AO  
LLB *Syd*, LLM *Pennsylvania*, MBA *Wharton*

### Academic Board

The Academic Board is the principal academic body of the University. Comprising up to 60 members, the Board advises the Vice-Chancellor and Council on matters relating to teaching, scholarship and research, and takes decisions on delegation from Council.

### Management

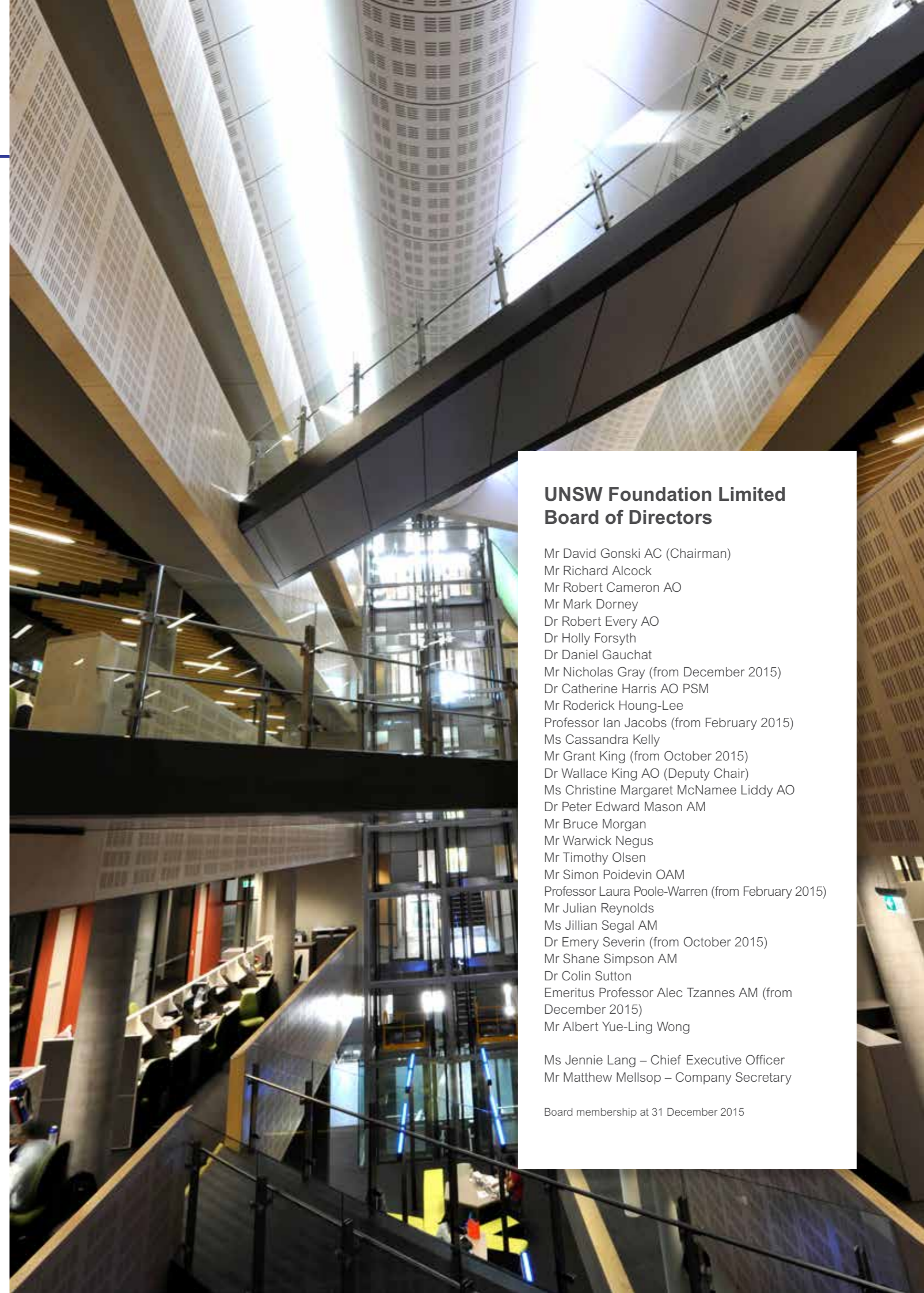
The Vice-Chancellor is the Principal Executive Officer of the University and is responsible for the overall direction of corporate planning, budget activities and external relations. Under the Council, the Vice-Chancellor manages and supervises the administrative, financial and other activities of the University. Reporting to the Vice-Chancellor are an Executive Team, eight Faculty Deans and the Rector of UNSW Canberra, who have significant delegated authority in relation to their areas.

## UNSW Foundation Limited Board of Directors

Mr David Gonski AC (Chairman)  
Mr Richard Alcock  
Mr Robert Cameron AO  
Mr Mark Dorney  
Dr Robert Every AO  
Dr Holly Forsyth  
Dr Daniel Gauchat  
Mr Nicholas Gray (from December 2015)  
Dr Catherine Harris AO PSM  
Mr Roderick Houg-Lee  
Professor Ian Jacobs (from February 2015)  
Ms Cassandra Kelly  
Mr Grant King (from October 2015)  
Dr Wallace King AO (Deputy Chair)  
Ms Christine Margaret McNamee Liddy AO  
Dr Peter Edward Mason AM  
Mr Bruce Morgan  
Mr Warwick Negus  
Mr Timothy Olsen  
Mr Simon Poidevin OAM  
Professor Laura Poole-Warren (from February 2015)  
Mr Julian Reynolds  
Ms Jillian Segal AM  
Dr Emery Severin (from October 2015)  
Mr Shane Simpson AM  
Dr Colin Sutton  
Emeritus Professor Alec Tzannes AM (from December 2015)  
Mr Albert Yue-Ling Wong

Ms Jennie Lang – Chief Executive Officer  
Mr Matthew Mellsop – Company Secretary

Board membership at 31 December 2015





# Leadership

## University Senior Team

(as at 31 December 2015)

### President and Vice-Chancellor

Professor Ian Jacobs  
BA MA *Cam* MBBS *UCL* MD *London*  
FRCOG

### Deputy Vice-Chancellor (Academic) and Vice-President

Professor Iain Martin  
MBChB(Hons) MEd(Dist) MD *Leeds*

### Deputy Vice-Chancellor (Research) and Vice-President

Professor Les Field AM  
BSc PhD DSc *Syd*, FAA FRACI

### President, Academic Board

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

### Chief of Staff and Vice-President

Mr Peter Noble  
MBA *Leeds*

### Chief Financial Officer and Vice-President

Mr Andrew Walters  
BCom *UKZN* BAccSci (Hons) *South Africa*  
CA

### Vice-President, Advancement and Chief Executive Officer, UNSW Foundation

Ms Jennie Lang  
BA BEd (Dist.) MEd *N'cle NSW*

### Vice-President, Campus Life and Community Engagement

Mr Neil Morris  
BA *N'cle NSW*, TGM *INSEAD*

### Vice-President, Human Resources

Mr David Ward  
BA (Hons) MCom *UNSW*

## Senior Officers

### Pro-Vice-Chancellor (Research)

Professor Brian Boyle  
BSc Hons *Edinburgh* DPhil *Durham*

### Pro-Vice-Chancellor (Research Training)

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

### Pro-Vice-Chancellor (Research Infrastructure)

Associate Professor Grainne Moran  
BSc PhD *NUI Galway*

### Pro-Vice-Chancellor (Students)

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

### Pro-Vice-Chancellor (International)

Ms Fiona Docherty  
MA (Hons) *Glasgow*

## University Executive Team

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

## Deans

### Art & Design

Professor Ross Harley  
BA (Hons) *Griffith*, MA *DCA UTS*

### Arts & Social Sciences

Professor Eileen Baldry (Interim Dean)  
BA DipEd *Syd*, MWP PhD *UNSW*

### Built Environment

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

### Business School

Professor Chris Styles  
BCom (Hons) *UWA*, PhD *London Business School*

### Engineering

Professor Mark Hoffman  
BMechEng (Hons) PhD *Syd*, MBT *UNSW*

### Law

Professor David Dixon  
BA *Camb*, BPhil *Hull*, PhD *Wales*

### Medicine

Professor Rodney Phillips  
FMedSci MA *Oxon* MD *Melb* FRCP FRACP

### Science

Professor Merlin Crossley  
BSc (Hons) *Melb*, DPhil *Oxon*

### UNSW Canberra

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

## Senior Management Appointments

In December 2015, the Vice-Chancellor announced new senior leadership arrangements effective from 2016, including the following new appointments:

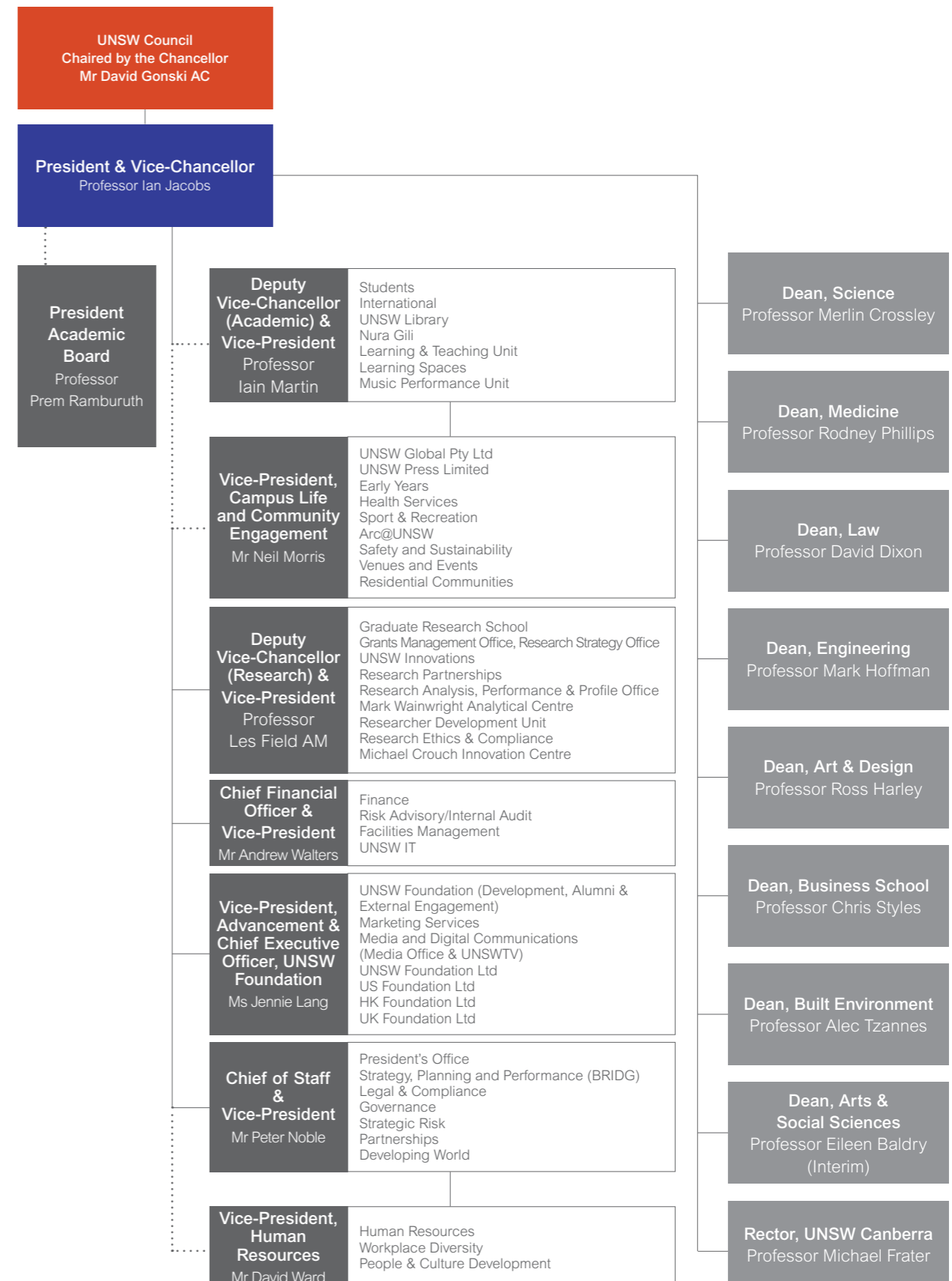
- Professor Les Field, Deputy Vice-Chancellor (Research) and Vice-President was announced as Senior Deputy Vice-Chancellor effective 29 February 2016.
- Professor Merlin Crossley, Dean of the Faculty of Science, was appointed Deputy Vice-Chancellor (Education) and Vice-President.
- Professor Brian Boyle, who joined UNSW as Director, Research Strategy from CSIRO and assumed the role of Pro-Vice-Chancellor Research in September 2015, was appointed acting Deputy Vice-Chancellor (Research) and Vice-President.

Other senior management appointments announced included:

- Professor Geoffrey Crisp joins UNSW in the role of Pro-Vice-Chancellor (Education) from RMIT where he was Dean, Learning and Teaching.
- Professor Helen Lochhead, Deputy NSW Government Architect and an Adjunct Professor at the University of Sydney, was appointed Dean of the Faculty of the Built Environment, to commence in February 2016.
- Professor Susan Dodds as Dean of the Faculty of Arts & Social Sciences and Professor of Philosophy. Professor Dodds has been Dean of the Faculty of Arts at the University of Tasmania since 2009 and will assume the role at UNSW on 4 April 2016.
- Mr Jon Paparsenos was appointed to the new role of Vice-President, Philanthropy, commencing in February 2016. Mr Paparsenos comes to UNSW from the California Institute of Technology (Caltech) where he was Executive Director of Development, Academic Divisions and Regions.

# Organisational Chart

(as at 31 December 2015)





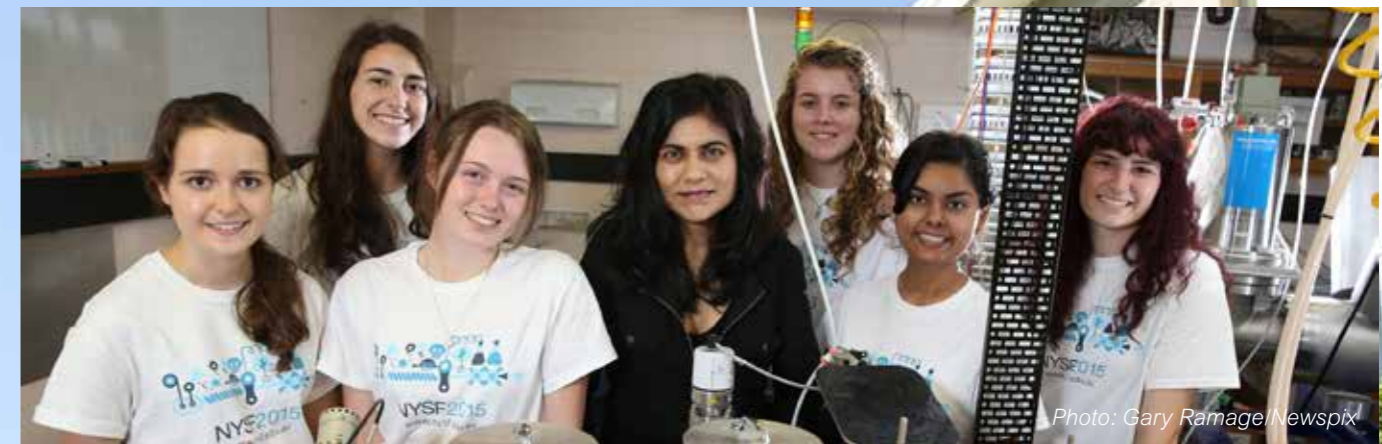
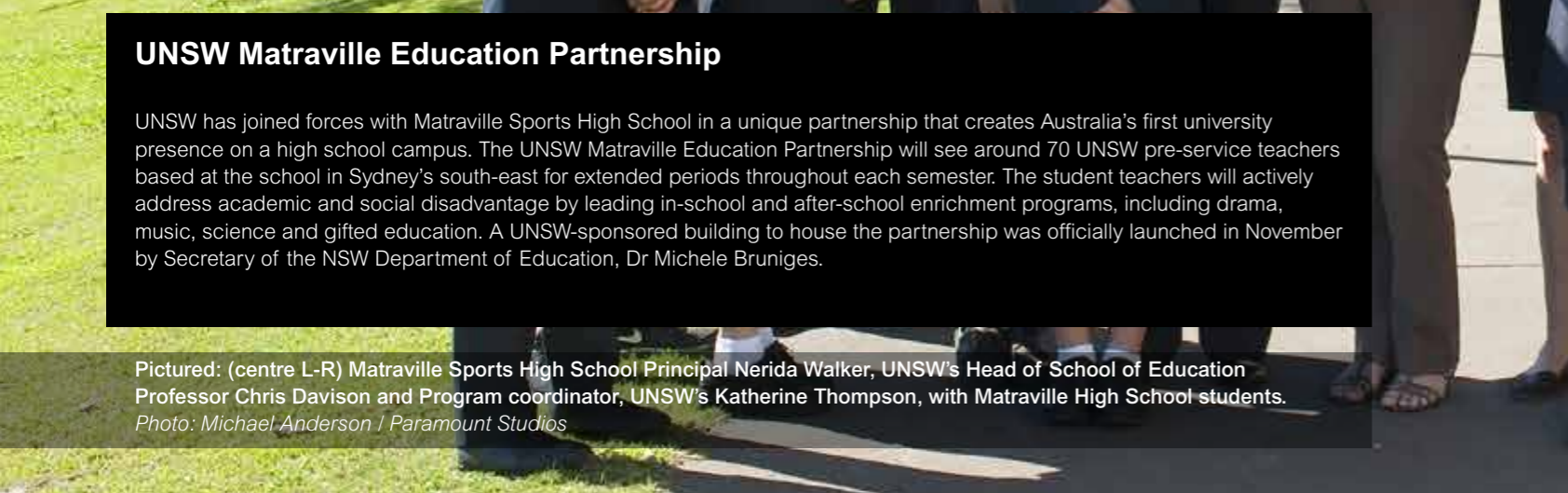


Photo: Gary Ramage/NewsPix

### Science 50:50 – Inspiring young women into Science

Girls are under-represented in the STEM subjects – science, technology, engineering and mathematics. A new program to inspire young women to pursue STEM degrees – led by UNSW’s Scientia Professor Veena Sahajwalla – was launched in Canberra. The Science 50:50 initiative has a simple premise: since half of the population is female, why not half the scientists and technologists? The program, which will provide internships, scholarships and mentoring to girls so they can succeed in an innovation-driven future, is supported by Professor Sahajwalla’s ARC Georgina Sweet Laureate Fellowship and UNSW, along with scientific and industry partners.



### UNSW Matraville Education Partnership

UNSW has joined forces with Matraville Sports High School in a unique partnership that creates Australia’s first university presence on a high school campus. The UNSW Matraville Education Partnership will see around 70 UNSW pre-service teachers based at the school in Sydney’s south-east for extended periods throughout each semester. The student teachers will actively address academic and social disadvantage by leading in-school and after-school enrichment programs, including drama, music, science and gifted education. A UNSW-sponsored building to house the partnership was officially launched in November by Secretary of the NSW Department of Education, Dr Michele Bruniges.

Pictured: (centre L-R) Matraville Sports High School Principal Nerida Walker, UNSW’s Head of School of Education Professor Chris Davison and Program coordinator, UNSW’s Katherine Thompson, with Matraville High School students.  
Photo: Michael Anderson / Paramount Studios



# Academic Excellence

We will create a research environment and career opportunities that compete with any university worldwide. We will also shape the future of higher education through a unique and flexible blend of face-to-face and digital education.



UNSW scientists were big winners at the prestigious Australian Museum Eureka Prizes in 2015. (Pictured from left) Environmental scientists Richard Kingsford and David Keith were honoured for developing universal standards to assess at-risk ecosystems; Scientia Professor and quantum physicist Michelle Simmons won the CSIRO Eureka Prize for Leadership in Science; while marine scientist and TV presenter Emma Johnston was honoured for her work as a science communicator.

Photo: Australian Museum/Eureka Prizes

## 2015 highlights include:

### Research excellence

- UNSW continued to climb international rankings: it moved up two places to 46th in the 2015 QS World University Rankings, and in the Times Higher Education rankings it jumped 29 places to 82nd. UNSW also moved up five spots to 125 in the Academic Ranking of World Universities, published by Shanghai Jiao Tong University.

- The continued success of the ARC Centre for Quantum Computation and Communication Technology was recognised in December with funding pledges totalling \$46 million. The federal government committed \$26 million, while corporate partners Commonwealth Bank and Telstra have each pledged \$10 million.

### Funding

- UNSW ranked fourth in the Go8 in NHMRC funding in 2015, securing \$72m for projects across all schemes beginning in 2016.
- In ARC funding, UNSW topped the state and placed third in the Go8, receiving more than \$51.3m for 131 projects across all schemes. The Go8 and UNSW have continued to perform well despite a 20% decrease in the total ARC funding allocated for 2016, resulting in fewer grants across the board.
- UNSW received \$10.3 million in ARC Linkage Project grants for 32 projects, the most grants of any Australian university. With money from industry partners, UNSW's total funding rises to \$32.4 million, the highest in the country.

- Our total HERDC research income for 2014 decreased by \$2m (less than 1%) over the previous year – from \$347m to \$345m.
- Our total Category 1 research income (Australian Competitive Research Grants) increased by 3% from \$154m to \$159m, the fourth largest increase across the Go8. Our Category 2 research income (other public sector research income) was \$90m in 2014, down from \$110m the previous year.

### Innovation

- In December, UNSW released its Innovation Statement to coincide with the federal government's National Innovation and Science Agenda. Some of the outcomes the University hopes to achieve include: expanding industry incubators on campus and enabling 100 more student start-ups per year, developing a new Innovation Park adjacent to UNSW Kensington campus by 2020, opening an internationally accredited Clinical Health Research Facility, developing 1000 new industry internships and fellowships, and expanding the Easy Access IP model.

### Higher degree research

- Higher degree research completions remained significantly higher than the Go8 average. High-quality domestic scholarship applications increased by 18% in 2015, and international applications increased by 8%.

\$51.3m

ARC funding for 131 new projects – the highest in NSW

46

2015 QS World University Rankings

Recognition

Researchers and teachers receive national and international awards

Innovation

UNSW opens Michael Crouch Innovation Centre for students

4,263

Higher degree research candidates

Excellence

\$72m in NHMRC funding for projects to begin in 2016

Collaboration

Commonwealth Bank and Telstra each commit \$10 million to UNSW's quantum computing research

Industry

\$10.3m for 32 ARC Linkage Project grants, the highest number nationally

## UNSW Scientia Educational Experience

- This new initiative will empower students to realise their potential through a personalised and flexible educational experience. The Scientia Educational Experience will seamlessly blend the highest quality face-to-face teaching with digital education technologies to inspire curiosity and innovation across a collegiate learning community of peers, academics, employers and alumni.

## Award-winning teaching

- UNSW educators won a range of prestigious teaching awards in 2015. For developing a MOOC that helps educators learn to teach online, Simon McIntyre from UNSW Art & Design was awarded a national Teaching Excellence Award at the prestigious Australian Awards for University Teaching.
- Dean Utian, from Built Environment, was one of four UNSW staff to receive citations for excellence in the 2015 Australian Awards for University Teaching. Utian was recognised for his use of innovative video and games to empower his students to develop digital communication, design and creative expression. Other UNSW recipients were Dr Martin Bliemel and Dr Natalie Buckmaster from the UNSW Business School, and Professor Alex Steel from UNSW Law.

## Integrating technology into teaching

- Opportunities identified in the UNSW Digital Campus Master Plan are being assessed to understand which initiatives will deliver the greatest value to the University, its teachers and its students.

## Australia-first innovation hub

- The Michael Crouch Innovation Centre was officially opened in September. Unprecedented at an Australian university, the centre is a creative space where the next generation of student innovators from all disciplines can experiment, connect and showcase their ideas to corporate and industry partners.

## Global alliances and focused partnerships

- In 2015, UNSW began discussions on becoming a founding member of the PLuS Alliance with Arizona State University and King's College London. Combining the cutting-edge research capabilities and innovative education approach of three universities in different parts of the world, the PLuS Alliance will undertake cross-border research collaborations to address significant issues related to health, social justice, sustainability and innovation.
- UNSW and China's prestigious Shanghai Jiao Tong University established a Joint Innovation Hub in Advanced Materials for the Space Age. The partnership builds on the successful \$1 million Collaborative Investment Fund established by the two universities in 2013.



# Research & Teaching Awards

## Major prizes awarded in 2015 include:

### Prime Minister's Science Prizes

#### Malcolm McIntosh Prize for Physical Scientist of the Year

A/Prof Cyrille Boyer, deputy director of the Australian Centre for NanoMedicine

#### Theiss International River Prize

Lake Eyre Basin Partnership (including Professor Richard Kingsford, Centre for Ecosystem Science)

## Australian Academy of Science Awards

### Christopher Heyde Medal

A/Prof Catherine Greenhill, School of Mathematics and Statistics

### Jaeger Medal

Prof Trevor McDougall FAA FRS, School of Mathematics and Statistics

### Thomas Ranken Lyle Medal

Scientia Prof Michelle Simmons FAA, School of Physics

### Ian Wark Medal

Scientia Prof Martin Green AM, Australian Centre for Advanced Photovoltaics

### Le Févre Memorial Prize

A/Prof Cyrille Boyer, School of Chemical Engineering

### Dorothy Hill Award

Dr Andrea Taschetto, Climate Change Research Centre

## Royal Society of NSW

### James Cook Medal

Scientia Prof Martin Green, Australian Centre for Advanced Photovoltaics

## Premier's Prizes for Science & Engineering

### Leadership in Innovation

Prof Christoph Arns, School of Petroleum Engineering

### Excellence in Engineering & ICT

Scientia Prof Mark Bradford FTSE, School of Civil and Environmental Engineering

### Excellence in Mathematics, Earth Sciences, Chemistry and Physics

Scientia Prof Victor Flambaum FAA, School of Physics

### Excellence in Medical Biological Sciences

Scientia Prof George Paxinos AO FASSA FAA, Neuroscience Research Australia (NeuRA)

### Engineers Australia Top 100 Most Influential Engineers

Scientia Prof Rose Amal, School of Chemical Engineering; Prof Christoph Arns, School of Petroleum Engineering; Scientia Prof Gernot Heiser, School of Computer Science and Engineering; A/Prof Stuart Khan, School of Civil and Environmental Engineering; Scientia Prof Nigel Lovell, Graduate School of Biomedical Engineering;

Prof Val Pinczewski, School of Petroleum Engineering; Scientia Prof Veena Sahajwalla, School of Materials Science and Engineering.

### ARC Australian Laureate Fellows

Prof Steven Sherwood, Director of the Climate Change Research Centre

Scientia Prof Trevor McDougall, School of Mathematics and Statistics

Prof Justin Gooding, School of Chemistry, Co-director of the Australian Centre for Nanomedicine

## Eureka Prizes

### CSIRO Eureka Prize for Leadership in Science

Scientia Prof Michelle Simmons, Director of the ARC Centre of Excellence for Quantum Computation and Communication Technology

### Eureka Prize for Promoting Understanding of Australian Science Research

Prof Emma Johnston, School of Biological, Earth and Environmental Sciences

### NSW Office of Environment and Heritage Eureka Prize for Environmental Research

Prof David Keith, Centre for Ecosystem Science

### Westpac 100 Women of Influence Awards

Scientia Prof Jane McAdam, Law and Scientia Prof Veena Sahajwalla, Materials Science and Engineering

### L'Oréal-UNESCO for Women in Science Fellowship

Dr Muireann Irish, NeuRA

### Fellowship of the Australian Academy of Health & Medical Sciences (AAHMS)

Scientia Prof Helen Christensen, Black Dog Institute

Scientia Prof David Cooper, Kirby Institute

Prof John Eisman, Garvan Institute of Medical Research

Prof Robert Graham, Victor Chang Cardiac Research Institute

Prof Michelle Haber, Children's Cancer Institute

Prof Glenda Halliday, NeuRA

Prof Stephen Lord, NeuRA

Prof John Mattick, Garvan Institute of Medical Research

Prof John Myburgh, St George Clinical School

Prof Peter Schofield, NeuRA

Prof Maree Teesson, NHMRC Centre of Research Excellence in Mental Health and Substance Use / National Drug and Alcohol Research Centre

Scientia Prof Henry Brodaty, School of Psychiatry

Scientia Prof Katharina Gaus, School of Medical Sciences

Prof Andrew Grulich, Kirby Institute

Scientia Prof Mark Harris, Centre for Primary Health Care and Equity

Scientia Prof John Kaldor, Kirby Institute

Prof Anthony Kelleher, Kirby Institute

Prof Matthew Kiernan, Prince of Wales Clinical School

Scientia Prof Perminder Sachdev, School of Psychiatry

Prof Jamie Vandenberg, Victor Chang Cardiac Research Institute

### Fellowship of the Academy of Technological Sciences & Engineering (ATSE)

Scientia Prof Michelle Simmons, Director of the ARC Centre of Excellence for Quantum Computation and Communication Technology

Prof Michael Frater, Rector UNSW Canberra

Prof Anne Simmons, Head of the School of Mechanical and Manufacturing Engineering

### Fellowship of Academy of the Social Sciences in Australia (ASSA)

Scientia Prof Peter Aggleton, School of Arts & Social Sciences

Prof Lyn Craig, Social Policy Research Centre

Prof W. Erwin Diewert, School of Economics

Prof Lisa Maher, Kirby Institute

Scientia Prof Phillip Mitchell, School of Psychiatry

Prof Michael Quinlan, School of Management

Prof Bill Randolph, Faculty of Built Environment

Prof Maree Teesson, NHMRC Centre of Research Excellence in Mental Health and Substance Use / National Drug and

Alcohol Research Centre

### Fellowship of the American Association for the Advancement of Science (AAAS)

Scientia Prof Michelle Simmons, Director of the ARC Centre of Excellence for Quantum Computation and Communication Technology

### NSW Young Tall Poppy Science Awards

Dr Dane McCamey, School of Physics, won the NSW Young Tall Poppy of the Year. Other prize winners included: Dr Amy Reichelt, School of Psychology; Dr Mirela Tulbure, School of Computer Science and Engineering, and Dr Deborah Cromer, School of Biological, Earth and Environmental Sciences.

### NSW Woman of the Year

Prof Minoti Apte, Medicine

### NSW Green Globe Awards

'Natural Environment Sustainability' category

Water Research Laboratory (with Greater Taree City Council)

## Australian Awards for University Teaching (National Office of Learning and Teaching)

### Teaching Excellence Award

Mr Simon McIntyre, UNSW Art & Design

### Office of Learning and Teaching Citation Recipients

Dr Martin Bliemel, UNSW Business

Dr Natalie Buckmaster, UNSW Business

Professor Alex Steel, UNSW Law

Mr Dean Utian, UNSW Built Environment

## Vice-Chancellor's Awards for Teaching Excellence

### General Category

Dr Elizabeth Angstmann, School of Physics

Dr Therese Cumming, School of Education

Dr Rebecca LeBard, School of Biotechnology and Biomolecular Sciences

A/Prof Manolete Mora, School of the Arts and Media

Dr Nalini Pather, School of Medical Sciences

A/Prof Patsie Polly, School of Medical Sciences

### Postgraduate Research Supervision

Prof Brendan Edgeworth, School of Law

Prof Gary Froyland, School of Mathematics and Statistics

### Early Career

Dr Luke Hunter, School of Chemistry

Dr Pramod Koshy, School of Materials Science and Engineering

Dr Leila Morsy, School of Education

### Contributions to Student Learning

Dr Thomas Britz, School of Mathematics and Statistics

Mr Julian Ehrlich, School of Management

Dr Thomas Fath, School of Medical Sciences

Dr Trevor Lewis, School of Medical Sciences

Dr Michael Kasumovic, School of Biological, Earth and

Environmental Sciences

Dr Astrid Lorange and Dr Tim Gregory, UNSW Art & Design

Dr Stephen Moore, Prof Richard Stuetz, Prof Nicholas Nakata,

A/Prof Iain McGill, Dr Taha Rashidi, Dr Ruth Fisher, and

Miss Elsie Edgerton-Till (Team Award), School of Civil and

Environmental Engineering

Ms Stella Sheeba, School of Biotechnology and Biomolecular

Sciences

Dr Felix Tan, School of Information Systems, Technology

Management

### Programs that Enhance Learning

Dr Michael Ryan, School of Engineering and Information

Technology, UNSW Canberra



# Social Engagement

We will take steps to achieve equity for students and staff. We will work closely with industry to ensure our research outcomes rapidly benefit society. We will lead debates on the grand challenges that face Australia and humankind.



UNSW, in partnership with *The Sydney Morning Herald*, hosted a special public event in the lead-up to the Paris summit, *Climate for Change* – a panel discussion and Q&A with experts from climate science, business, sustainability and politics. UNSW is home to the country's leading climate scientists and renewable energy experts. Climate change is the first of the global 'Grand Challenges' identified in UNSW's 2025 Strategy. Photo: Arunas Klupsas

## 2015 highlights include:

### Gender equity and diversity

- UNSW is an inaugural participant in an Australia-first pilot program to improve the promotion and retention of women in science, technology, engineering, maths and medicine. The Science in Australia Gender Equity (SAGE) Pilot Program is a partnership between the Australian Academy of Science and the Australian Academy of Technological Sciences and Engineering.
- UNSW launched the Science 50:50 Initiative, which is aimed at inspiring young women to pursue degrees and careers in science and technology. Led by Scientia Professor Veena Sahajwalla, it will provide internships, scholarships and mentoring to girls so they can succeed in an innovation-driven future. It is supported by UNSW, Professor Sahajwalla's ARC Georgina Sweet Laureate Fellowship and industry partners.
- Nura Gili provides pathway programs to university for Indigenous students and ongoing study support. In 2015, UNSW graduated a record number of eight Indigenous doctors. A record number of Indigenous PhD students also completed their studies.

### Community engagement

- UNSW joined forces with Matraville Sports High School in Sydney in a unique partnership that creates Australia's first university presence on a high school campus.

- The ASPIRE and U@UNSW programs continue to play a key role in working with school students from disadvantaged backgrounds in Sydney and rural NSW to assist them in accessing a university education. Key initiatives in 2015 saw staff and student ambassadors travel to Dubbo to work with more than 180 year nine students.

### Thought leadership and Grand Challenges

- New research from a UNSW-commissioned Deloitte Access Economics report, 'The Economic Contributions of Australia's Research Universities, the UNSW example', found the research output of UNSW alone contributed \$15 billion to the Australian economy in 2014. As a whole, the university sector contributed \$160 billion, or about 10% of GDP. This is more than Australia's mining sector.
- Climate change was announced as the first Grand Challenge to be addressed following widespread consultation for the University's new 2025 Strategy.
- In April, human rights lawyer Professor Megan Davis was elected Chair of the United Nations permanent forum on Indigenous issues, and in December, she was appointed by PM Malcolm Turnbull to the 16-member national Referendum Council, which will seek to find an appropriate path to recognise Aboriginal and Torres Strait Islanders in the constitution.
- In November, UNSW announced an historic partnership with the University of Sydney to collaboratively target mental health, addiction and neuroscience.

## Spotlight

UNSW centre stage for the Sydney Writers' Festival and Film Festival

## Voices

UNSW launches Top 5 Under 40 with ABC RN to uncover a new generation of STEM communicators

## Honours

Stephen and Lucy Hawking awarded the 2015 UNSW Medal for Science Communication

## Partnerships

UNSW teams up with Fairfax Media to host Climate Change Forum ahead of Paris talks

# 415,000+

Likes on UNSW's Facebook page – most popular of all Australian universities

## Ingenuity

UNSW Innovations ranked best in the world in Easy Access IP deals

## Arts

Australia Ensemble's new artistic Chair, Paul Stanhope, launches program

## Equity

UNSW joins the Science in Australia Gender Equity (SAGE) Pilot Program

### Public events and cultural partnerships

- Ela Gandhi delivered the fourth annual UNSW Gandhi Oration, named in honour of her grandfather Mahatma Gandhi. Distinguished barrister and human rights advocate Julian Burnside used his 2015 Hal Wootten Lecture in March to warn that the international community saw Australia as "cruel and selfish" for its treatment of asylum seekers.
- UNSW's new Big Questions Institute partnered with the Sydney Opera House and Cisco to present physicist and cosmologist Stephen Hawking in his first Australian talk live from Cambridge via hologram. The University awarded Hawking, and his daughter Lucy, a renowned author, the 2015 UNSW Medal for Science Communication.
- In May, UNSW's Australian Human Rights Centre hosted US Ambassador-at-Large for War Crimes Stephen Rapp, who spoke on the myriad human rights challenges posed by the conflict in Syria.
- Also in May, fertility specialist William Ledger and social researcher Mark McCrindle discussed the vexed issues of delayed parenthood and fertility in the UNSW Medicine Dean's Lecture.
- UNSW hosted the Australian Social Policy Conference in September, a three-day event that saw researchers tackling issues including climate change, migration, aged care, and housing issues.
- Five of the country's finest young scientists were selected as the inaugural Top 5 Under 40, an initiative of UNSW and ABC RN to uncover a new generation of thinkers and give them a media voice.

- Major partnerships with the Sydney Writers' Festival, the Sydney Film Festival, VIVID Sydney and the Walkley Foundation put UNSW centre stage in 2015. Arts & Social Sciences celebrated its first year as the Film Festival's features partner; academics and alumni participated in 11 Writers' Festival panels; students exhibited in the city's Winter Festival; UNSW Press continued its traditional success at the Writers' Festival, contributing 50 authors to the program; and UNSW became a major partner of Sculpture by the Sea

- A unique collaboration between UNSW and award-winning photographer Tamara Dean was unveiled at the Australian Museum in November. *Wild Researchers* showcased the portraits of 17 UNSW researchers photographed in the field.

### Knowledge exchange and innovation

- UNSW Engineering launched 25 Industry Research Fellowships, which will see industry employees embedded with research staff at the University.
- UNSW Innovations continued to have success facilitating connections between researchers and industry: It ranked first out of 24 institutions in the world in Easy Access IP deals.
- By the end of 2015, the UNSW intellectual property portfolio consists of 177 patent families, with an additional 18 new patent families being drafted.



We will expand our global educational reach using innovative technologies and delivery models. We will develop high-profile and strategic research and education partnerships with international universities. We will expand our efforts to improve the lives of marginalised and disadvantaged communities in Australia, the Asia-Pacific and globally.



Seven UNSW students have been awarded prestigious New Colombo Plan scholarships, worth up to \$67,000 each, for study and internships in the Indo-Pacific region in 2016. The Governor-General Sir Peter Cosgrove and Minister for Foreign Affairs Julie Bishop announced the scholarship winners at an awards dinner in Canberra in December. Pictured from left: UNSW Pro-Vice-Chancellor Fiona Docherty, William Bruffey, Joseph Harris, Nathan Leong, Julie Bishop, Matthew Nicholl, Wing Yee Jenny Yeung, Piero Craney and Clarence Ma.

## 2015 highlights include:

### International students

- UNSW will streamline recruitment and admissions activities, improving student monitoring and assessment, enhancing pastoral care, and by providing personalised guidance for all students, wherever they are studying.
- Six UNSW students were selected as ambassadors for the City of Sydney in 2015 and will help promote the city's reputation as one of the world's top destinations for international students. Claire Goh, James Kwa, Nicholas Tay, Yaroslava Vasina, Hoi Ching, Jacqueline Shiu, and Dhimas Satriyo will join 36 other international students, representing 19 countries and 15 institutions, in the International Student Leadership and Ambassador program.

### New Colombo Plan

- In August, the government announced funding of \$1.5 million in New Colombo Plan mobility grants to UNSW over three years, supporting more than 200 UNSW students who will travel to the Indo-Pacific region in 2016. Projects include ambassador programs for 60 students in Indonesia and China, a global business practicum in Hong Kong, an engineering health initiative in Cambodia and a field school project in Samoa.

### Future leaders

- Three UNSW women were among 17 students Australia-wide to receive coveted Westpac Future Leaders scholarships. The scholarships are given to exceptional postgraduate students who have the potential to shape

Australia's future. Alison Phillips, Clare Stephens and Susan Overall will use the up-to- \$120,000 grants to cover the costs of their studies, pursue global opportunities and enrol in a nine-month leadership development course in conjunction with UNSW's Graduate School of Management (AGSM).

### International partnerships

- In November, NSW Premier Mike Baird unveiled the new UNSW Shanghai Jiao Tong University Joint Innovation Hub in Advanced Materials for the Space Age during his visit to China. There were also preliminary discussions about a potential UNSW-China partnership in a Science & Technology Park – connecting UNSW and local Australian businesses with China's formidable and rapidly expanding innovation ecosystem.
- UNSW continues to be an active member of several high-profile university networks, such as the Association of Pacific Rim Universities (APRU), Universitas 21 (U21) and GlobalTech. It also ended 2015 in talks to establish the PLuS Alliance with Arizona State University and King's College London.
- Total income from new research contracts signed in 2015 increased significantly to more than \$33m, compared to \$23m in 2014. Greater than half this amount is from Australian and international industry partners.
- Our engagement strategy with Chinese industry partners began to pay off with the first contract signed from our China research roadshows and many others under negotiation.

## \$1.5m

In New Colombo Plan funding to help 200 students travel to the Indo-Pacific region

## Ambassadors

Six international students elected as ambassadors for Sydney

## Mental Health

UNSW forms an historic partnership with the University of Sydney to tackle mental health

## Big Questions

UNSW's Big Questions Institute is launched by Stephen Hawking at the Sydney Opera House

## Unveiled

UNSW-Shanghai Tong University Joint Innovation Hub for Advanced Material for the Space Age

## Global Networks

In Learning, Knowledge and Development announced as part of the 2025 Strategy

## \$33m

In industry partnership funding, the highest in the country

## Health hub

Nobel Peace Prize winner Muhammad Yunus launches the Yunus Social Business Health Hub

### Global Learning Network

- To achieve our goal of becoming Australia's leading educator of international students, we will establish a new Global Learning Network. We will form strategic partnerships in cities overseas to improve access to UNSW programs for international students and provide overseas opportunities for our locally based students.

### Global Knowledge Network

- We will establish a Global Knowledge Network, creating a new model of international research collaborations. This will allow us to pool expertise, build international industry partnerships, provide a competitive advantage in major research projects, and more closely integrate international research talent to address the grand challenges of our time.

### Global Development Network

- UNSW announced it will develop a Global Development Network. The aim is to have significant new university partnerships across Asia, the Pacific and Africa. Three universities have been shortlisted for consideration: Yangon (Myanmar), South Pacific (Pacific Islands), Makerere (Uganda). UNSW staff and students will work with these partners on ambitious capacity-building projects. External stakeholders such as DFAT have also been involved in discussions, providing a clearer view on how UNSW can support Australia's wider foreign policy objectives in each region.

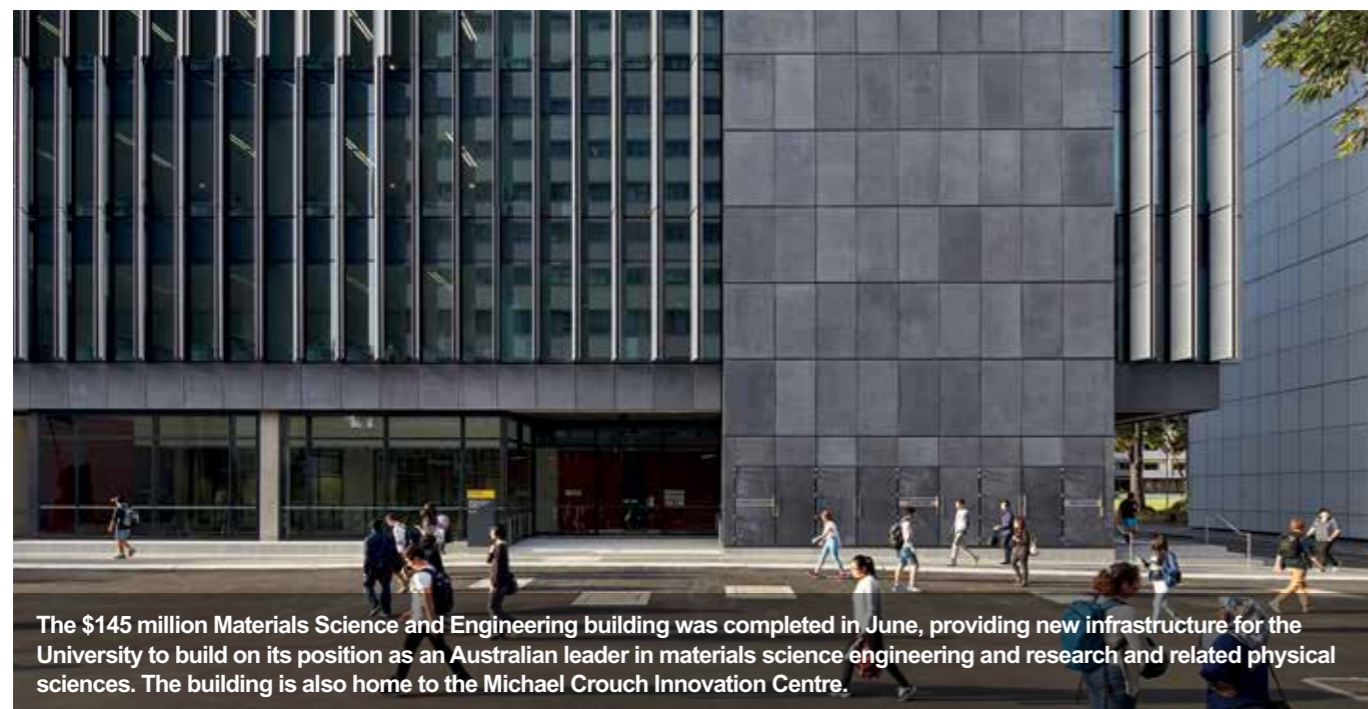
### Focus on collaboration

- Nobel Peace Prize winner Muhammad Yunus visited UNSW to launch Australia's first Yunus Social Business Health Hub, which aims to improve health outcomes in marginalised communities.
- A team from UNSW's Gendered Violence Research Network, the PNG Pacific Adventist University and government agencies and service providers created PNG's first culturally appropriate and gender-sensitive workplace policy to address family and sexual violence.
- UNSW Law's Dr Melissa Crouch brought together scholars from Australia and overseas in a conference in November to discuss what the recent Myanmar democratic elections mean for business, foreign investment and legal system.
- International experts from UNSW, the Australian Army, NSW Police and international bioterrorism and disaster authorities gathered at UNSW in December for an Australia-first university-based bioterrorism course, led by the School of Public Health & Community Medicine.
- As West Africa's Ebola outbreak continued to claim lives in 2015, two UNSW public health Masters students Walton Beckley and Mohammed Alpha Jalloh found a way to provide much needed practical support from Australia, delivering training sessions for health workers heading to the crisis.
- UNSW announced a new water research program mid-year that aims to provide clean drinking water to regional India through low-cost water purification solutions. The Tata-UNSW Water Initiative is made possible thanks to funding from the Tata Trust of India.



# Enabling Delivery of our Strategy

We will develop robust performance metrics to monitor our progress. Delivering on our ambitious plans will require us to generate additional revenue on a sustained basis. We will therefore focus on potential new income sources in our implementation plan.



The \$145 million Materials Science and Engineering building was completed in June, providing new infrastructure for the University to build on its position as an Australian leader in materials science engineering and research and related physical sciences. The building is also home to the Michael Crouch Innovation Centre.

<b>\$32.5m</b> Secured in fundraising income, exceeding annual target for third year running	<b>Renewal</b> Work begins on the new Biological Sciences building	<b>Alumni</b> UNSW's "exemplary" graduates recognised at the 2015 Alumni awards	<b>106</b> Campus infrastructure projects with a total investment of \$112m
<b>Transport</b> Construction begins on the new light rail connection from Central Station to UNSW	<b>\$67m</b> Redevelopment of the Mechanical and Manufacturing Engineering precinct	<b>Open</b> New Materials Science and Engineering Building	<b>\$6m</b> Received as a bequest from the Ian Burgess estate to fund scholarships for rural students

## 2015 highlights include:

### People and culture

- The University has launched its 360 Degree Leadership Feedback Program. This new initiative is designed to help UNSW's executive team respond to and better understand concerns about leadership. The program will provide constructive feedback about strengths and opportunity areas and will be run in stages throughout 2016.
- UNSW continues to recognise and award its staff members through the annual Staff Excellence Awards. They honour outstanding work in Leadership, People Management, Community Engagement, Diversity & Inclusion, Professional Services and Workplace Safety.

### Alumni

- The University is taking steps to create a stronger Alumni Network. This will include a new relationship approach to our students from their initial contact with UNSW to graduation, increasing and deepening contact with our global alumni community, and greater engagement with alumni by all parts of the University.
- UNSW continues to hold Alumni events overseas, including a UNSW Business School forum in Jakarta, and hosts the Annual Alumni Awards, recognising the outstanding work of past students. A Commerce graduate who left banking to teach former child soldiers, Australia's 1991 World Cup-winning rugby union coach and a doctor caring for homeless women and children were among those honoured at the 2015 UNSW Alumni Awards.

### Fundraising

- The UNSW Foundation raised more than \$30m in fundraising income for the third consecutive year, exceeding its target in 2015 by \$3.45m. Our pool of donors has also been expanding. In 2015 we had just over 5,000 total donors to the University up from 4,300 in 2011.
- As our bequest program continues to grow we received a major bequest of \$6 million from the Ian Burgess AO estate. This most generous bequest is to be shared equally between the Science and Engineering faculties to fund scholarships for disadvantaged and rural students.
- Among the many donations in 2015 was \$650,000 from John Holden and his family to fund two endowed residential scholarships for rural students at Basser College. John was the first President of Basser, coming to UNSW to study engineering from regional NSW.

### UNSW 2025 Strategy Office

- A UNSW 2025 Strategy Office has been established to assist our Faculties, Schools and Divisions to coordinate the range of programs and initiatives under the 2025 Strategy. The 2025 Strategy Office will be largely staffed from within UNSW, supported by Strategy& and PwC in the initial phases.

### Financial planning and reporting

- UNSW will establish a single enterprise-wide financial planning and reporting system, which will promote transparency and leading indicators to inform decision making.

### Campus development

- UNSW will aggregate existing plans to develop a physical campus development strategy. This will focus on providing contemporary spaces and facilities that meet student and staff needs, create a vibrant community of activity, and are safe, accessible and environmentally sustainable.
- UNSW is undertaking work to integrate digital technologies and solutions that are readily accessible and help meet the needs of staff and students.

### Engineering and Science hubs

- In July, UNSW opened the new Mechanical and Manufacturing Engineering precinct on the Kensington Campus. Supported in part by a donation from businessman and philanthropist Len Ainsworth, this \$67-million redevelopment will be home to more than 1600 of Australia's future engineers.
- In 2015, UNSW also opened a new Materials Science and Engineering building, which is home to the Michael Crouch Innovation Centre. This hub for student innovation is the first of its kind at a university in Australia. It provides students with co-curricular learning workshops, networking opportunities, and research and development facilities, complete with prototyping tools.

- The Biological Sciences stage 1 project has commenced construction and the Electrical Engineering refurbishment is expected to commence in 2016.

- Construction was completed in February of the Port Macquarie Joint Health Education Facility. This Education Investment Fund (EIF) funded project is a partnership between UNSW, University of Newcastle and North Coast TAFE.

- The federal Minister for Education and Training, Senator Simon Birmingham, opened a new \$3.3 million laboratory at UNSW in October with a one-of-a-kind capability in advanced materials fabrication for devices that have the potential to revolutionise sectors such as telecommunications, health, and energy.

### Retail

- Food and beverage outlets in the Mathews Arcade food court and Pavilions underwent refurbishments with seven retailers updating their stores and menu offerings.

### Light rail

- Construction on the light rail project will commence on High Street and Anzac Parade in 2016. UNSW is working with Transport for NSW to mitigate the impact of construction. These works will bring forward UNSW's light rail integration plans to accommodate the very high number of staff and students using the service. The completion of this project will connect the Kensington campus to the Sydney CBD.



**UNSW Australia**

UNSW SYDNEY NSW 2052  
Tel +61 2 9385 1000  
www.unsw.edu.au

**Hours of business**

Switchboard: Monday – Friday, 9am – 5pm  
Many departments of the University  
operate beyond standard business hours.

This report is published online at  
[www.annualreport.unsw.edu.au](http://www.annualreport.unsw.edu.au)



Produced by the  
UNSW Media Office

**PLUS ALLIANCE**



© UNSW 2016  
ISSN 0726-8459 Volume 1  
CRICOS Provider Code 00098G