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# Leading Locally, Competing Globally

**ECONOMIC IMPACT  
REPORT 2016**



**UNIVERSITY  
OF WOLLONGONG  
AUSTRALIA**

**Stands  
for purpose**

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# Stands for purpose

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UOW creates knowledge and innovation that supports the wider economic growth and development of its communities. Our graduates have the opportunity to be the best in their field at home or anywhere in the world.

In this time of social, environmental and economic challenges, universities have an obligation to lead and contribute to society. They are at the forefront of shaping contemporary policies, playing a central role in keeping Australia economically competitive and socially cohesive.

This is why the University of Wollongong is committed to new and emergent industries and future jobs. We are focused on creating a lasting impact that contributes to the needs of communities and empowering people to achieve their aspirations.

UOW is a global leader in discovery and learning, working to transform people and the world we live in. Our ambition for our graduates is that they will be agile, ethical and competitive in the global economy.

## TOP 2% OF WORLD UNIVERSITIES

- QS World University Rankings 2015/2016
- Times Higher Education World University Rankings 2015/2015
- Academic Ranking of World Universities (ARWU) 2016

## GLOBALLY RATED A FIVE-STAR UNIVERSITY

- QS World University Rankings 2015
- Australian Good Universities Guide 2017

## GLOBALLY RANKED AS ONE OF AUSTRALIA'S BEST MODERN UNIVERSITIES

- 37th in the world – Times Higher Education Top 100 Under 50 Rankings 2016
- 12th in the world - QS Top 50 Under 50 Rankings 2016

## Contents

UOW'S ECONOMIC FOOTPRINT	2	INVESTMENT IN INFRASTRUCTURE	16
DEVELOPING HUMAN CAPITAL	4	STUDENTS AND VISITORS	20
RESEARCH AND INNOVATION	6	MAKING A DIFFERENCE IN OUR COMMUNITIES	24
NEW INDUSTRIES, NEW JOBS	8	ENHANCING COMMUNITY HEALTH	28
UOW AS AN ENTERPRISE	14	GLOBALLY CONNECTED	32

# Supporting the creation of new industries and new jobs

The survival and success of local economies is being increasingly drawn to universities as the source of a skilled workforce and new ideas. In fact, more than a decade ago Britain's Ronald Dearing pointed towards the key role that universities are now expected to play: "Just as castles provided the source of strength for medieval towns, and factories provided prosperity in the industrial age, universities are the source of strength in the knowledge-based economy of the 21st century".

The University of Wollongong has been, and will continue to be, a source of strength that anchors the Illawarra's economy. The nexus between community, business and university is more important than ever and UOW is committed to shaping the local agenda and the transition to new industries and new jobs.

An assessment of the University's economic and social contribution has been conducted over three months in 2016. This study was prepared by the SMART Infrastructure Facility, the Centre for Small Business and Regional Research, and Cadence Economics. It follows on from the first comprehensive study on UOW's economic contribution which was produced in 2012. The new study uses the 2015 calendar year as the basis for analysis and a number of modifications and improvements to the previous methodology have been made.

I am pleased to report this new economic impact report confirms that we continue to make a significant impact to regional, state and national economies in the form of high-quality education and learning, research, technology, human capital development and graduate employability, aimed at meeting the needs of an increasingly knowledge and innovation-driven society.

This document outlines the headline findings of the study *Leading Locally, Competing Globally: Measuring the University of Wollongong's Contribution to Economic and Social Prosperity in the Illawarra and Beyond*.



This summary also presents our contributions that are harder to quantify in financial terms – particularly the value of volunteering undertaken by staff and students. There are also our research partnerships with business and industry that produce greater levels of innovation and impact which contribute to the creation of new enterprises.

Our total direct, indirect and induced economic contribution to Gross Domestic Product in 2015 was \$1.2 billion, while the various activities related to UOW's operations help generate \$2.2 billion in gross output annually. One main indicator of UOW's economic activity is its "direct value-added", which is an equivalent measure to Australia's GDP. The direct value-added (or economic contribution) of UOW increased, in real terms, from \$532 million in 2011 and \$573 million in 2015. This is an increase of 7.7% in real terms, or almost 2% per year.

Another key indicator of UOW's economic activity is employment. In full-time equivalent (FTE) terms, the total direct employment from UOW increased from 5,021 in 2011 to 5,224 in 2015. This is an increase of 4%, or 1% per year.

The changing structure of employment in the region over the last 30 years shows the growing importance of UOW's role as a developer of skilled human capital in the region. The coming period offers major opportunities for us to continue to evolve Wollongong from a steel city towards being a diverse, highly skilled and globally competitive "university city".

This document demonstrates that UOW provides Wollongong and the Illawarra region more generally with the economic leadership it needs to grow and reach its full potential as a vibrant, prosperous and globally competitive region well into the future.

A handwritten signature in black ink, appearing to read "Paul Wellings". The signature is stylized and written over a horizontal line.

Professor Paul Wellings CBE  
Vice-Chancellor

# UOW's economic footprint

University of Wollongong

Economic Impact 2016

The University of Wollongong is making a major contribution to Wollongong's economic and social transition from a steel city towards a more diverse, highly skilled and globally competitive region. We will help create the new industries and jobs for the future.

This snapshot of UOW's economic and social contribution is from the study titled *Leading Locally, Competing Globally: Measuring the University of Wollongong's Contribution to Economic and Social Prosperity in the Illawarra and beyond*. The study, based on 2015 results, shows that UOW is playing a leading role in attracting vitality and growth to the Illawarra and Australia.

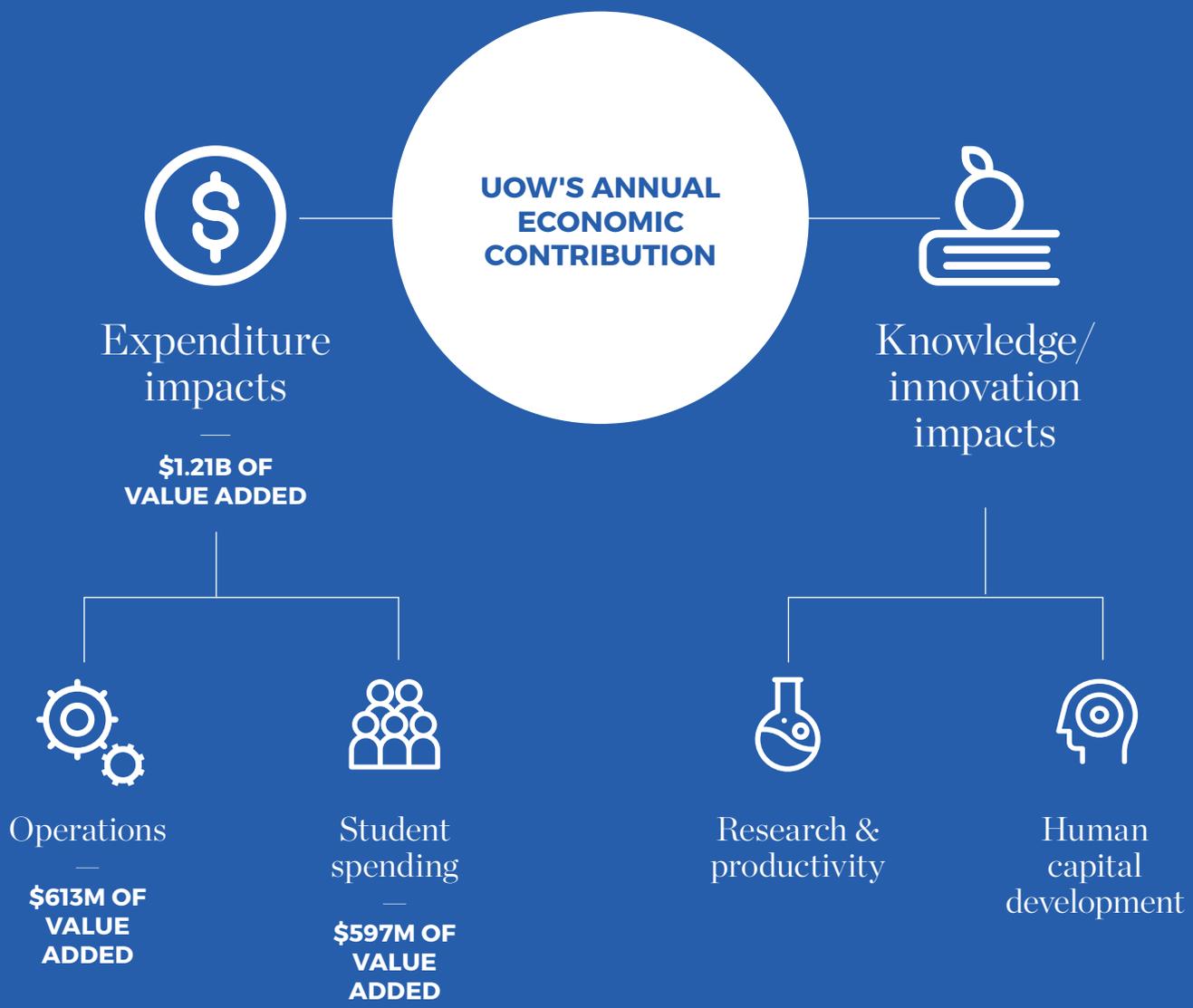
Our total direct, indirect and induced economic contribution to Gross Domestic Product in 2015 was \$1.2 billion. The direct economic contribution of UOW to the Illawarra, in value-added terms, is \$573 million – an increase of 7.7% between 2011 and 2015.

This reflects the continued significance of UOW in the Illawarra and Australia more broadly. The total (direct, indirect and induced) economic contribution has also increased in real terms from \$1.191 billion in 2011 to \$1.21 billion in 2015.

The various activities related to UOW helped generate \$2.2 billion in gross output annually and labour income generated is estimated at \$778 million. The total number of FTE jobs generated by UOW is estimated to be 10,169. Our graduates help generate approximately \$1.49 billion annually through earnings premiums and extra taxes.

The first comprehensive study of UOW's economic and social contribution was made in 2012 and this study has been undertaken to measure the University's continued economic footprint.

The 2012 report highlighted the need for economic leadership and ongoing transformation of the local economy. The changing structure of employment in the region over the last 30 years clearly shows the importance of UOW's role as a developer of skilled human capital within the region.



	Jobs	Labour income	Gross output
<b>Annual aggregate</b> Direct, indirect and induced	<b>10,169 FTES</b>	<b>\$778M</b>	<b>\$2.161B</b>
<b>UOW's ripple effects</b> (multipliers)	<b>1.7</b> Every 1,000 FTEs created by UOW related expenditure supports another 1,100 elsewhere in the economy.	<b>1.4</b> Every \$1M in labour income generated by UOW related expenditure generates another \$800,000 of income elsewhere in the economy.	<b>1.6</b> Every \$1M in value added as a result of UOW related expenditure generates another \$1M of income elsewhere in the economy.

# Developing human capital

University of Wollongong

Economic Impact 2016



Embedded in the University of Wollongong’s curriculum themes, principles and practices is a strong real-world focus to make sure our graduates are career-ready.

UOW has been a catalyst for Wollongong’s transformation from an industrial city into a university city focused on the knowledge economy, and it will be the skills and smarts of our people – the human capital - that will be pivotal in keeping Australia economically competitive and socially cohesive.

We are a world-class, research-intensive university that provides important opportunities and access to quality higher education in regional, rural and remote areas of southern NSW through our system of satellite campuses. These campuses also play an important role in building strong relationships between the University and local communities.

Our alumni population of more than 134,000 make economic, social, cultural and environmental contributions throughout Australian society, and connect to more than 175 businesses and governments around the world.

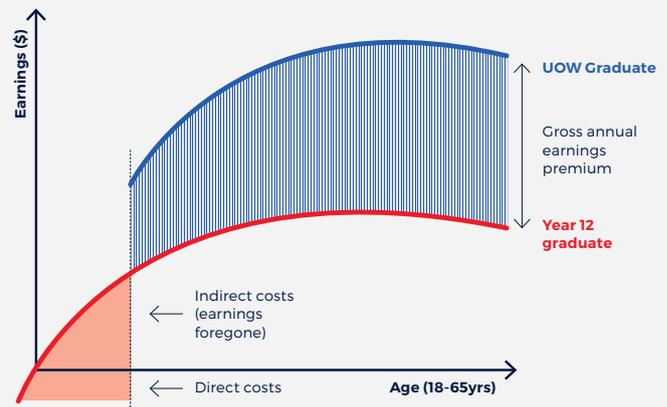
We produce graduates who can perform highly-skilled jobs, adding to the productive capacity of the economy and long-term growth.

## Key facts

<b>32,208</b>	<b>Top 1%</b>	<b>134,000</b>	<b>145</b>
Enrolled students	for graduates as rated by global employers	Alumni	Nationalities

## UOW graduate earnings premium

<b>45% more</b> Earned by UOW grads	<b>\$19,524</b> Per year	<b>\$761,428</b> Over working lifetime
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# UOW alumni make a big impact

Our alumni are ethical, agile thinkers who are competitive in a global economy. These are a few examples of UOW alumni who have made an impact in their careers.

## **SUNIL CHANDRA**

Vice-President at Google Inc, San Francisco  
Bachelor of Engineering (Computer Engineering), 1995

## **DAVE GREINER & BEN RICHARDSON**

Co-founders at Campaign Monitor  
Bachelor of Information Technology and Communication, 2000

## **MICHAEL NOONAN**

Deputy Chief of Navy  
Master of Arts (Maritime Policy), 1999

## **DEAN DALLA VALLE**

President and Chief Operating Officer at BHP Billiton  
Master of Business Administration (Management), 1996

## **DR DIANN RODGERS-HEALEY**

Director of Australian Centre for Leadership for Women Pty Ltd  
Doctor of Philosophy, 2009

## **LYNNE WILLIAMS**

Former CEO and Director of NIDA  
Bachelor of Commerce, 1990

## **DR BRONWYN EVANS**

CEO, Standards Australia  
PhD (Electrical Engineering), 1999  
Bachelor of Engineering (Electrical), 1983

## **GRAHAM HUNT**

Managing Director and Chief Executive Officer at Transfield Services  
Master of Business Administration (Management), 1990  
Bachelor of Metallurgy, 1980

## **SUSIE BURRELL**

Nutritionist, Author, Speaker  
Bachelor of Science (Hons), 2009  
Bachelor of Science (Psychology), 2000  
Bachelor of Nutrition and Dietetics, 1999

## **ANDREW STADELMANN**

Executive Director at Goldman Sachs  
Bachelor of Commerce (Finance & Economics), 2000

## **EDWARD MUSTON SC**

Senior Counsel, 7 Wentworth Selbourne  
Bachelor of Laws, 2000



## **MR MARK CUTIFANI**

Chief Executive, Anglo American plc  
Bachelor of Engineering (Civil), 1983

Mr Cutifani has had a highly successful career in the global mining industry over the past 40 years. His career began in 1976 straight after completing high school, when he joined Coal Cliff Colliery. Since then, Mr Cutifani has taken on two very high and demanding executive roles, the first being Chief Executive Officer of South African-based gold mining company AngloGold Ashanti. In 2013, he was appointed Chief Executive of Anglo American plc, one of the world's major diversified mining companies based in London. Mr Cutifani was named one of Australia's top 100 engineers in 2013, and in the same year was awarded an Honorary Doctorate from the University of Wollongong.



## **MS NIEVES MURRAY**

Chief Executive Officer, IRT Group  
Executive Education, Harvard Business School, 2008  
Graduate Certificate in Health Policy & Management, 1999  
Bachelor of Arts (Psychology), 1989

For a decade, Nieves Murray has been the CEO of IRT Group, which is one of Australia's largest community-based providers of seniors lifestyle and care. Ms Murray is the 2016 Wollongong Citizen of the Year and was named one of Australia's 100 Women of Influence in 2013. Ms Murray serves as Director of the Illawarra Credit Union and the South Eastern NSW Public Health Network (Coordinare). She is also a Member of the University of Wollongong Council, and volunteers with local charities. Ms Murray is a Fellow, Australian Institute of Management and a Member, Australian Institute of Company Directors.



## **MR PETER WASOW**

Chief Executive Officer and Managing Director, Alumina Limited  
Director, GHD Group  
Graduate Diploma in Commerce (Management), 1990  
Bachelor of Commerce (Accountancy), 1993  
FCPA

Over the past 35 years of his career, Peter Wasow has held several senior roles in the metals and mining, and energy industries. He had an extensive 23-year career with BHP Billiton, including seven years in the United States, before moving to Santos Limited in 2002 as Executive Vice-President and Chief Financial Officer. In his current role as Chief Executive Officer of Alumina Limited, Mr Wasow is responsible for the overall management of the company. He has also held various board positions and has been a director of the GHD Group since 2011.

# Research & innovation

University of Wollongong

Economic Impact 2016



UOW's research and development activities play a major role in shaping regional innovation and in helping to find solutions to some of society's biggest issues.

The University has major research centres which are global leaders in, for example, health, material sciences, sustainable construction, infrastructure development and early education. Many faculty leaders serve as advisors to industry and government agencies.

Research at the University brings federal and other external funding to Wollongong and NSW and attracts academic talent from across the

world. UOW has built an international reputation for world-class research, creating knowledge and innovation that supports the wider economic growth and development of its communities.

UOW's standing as a world-class research-intensive university was confirmed with the Australian Research Council's 2015 Excellence in Research for Australia (ERA) report finding 21 research areas at UOW were delivering research well above world standard. Our success in external rankings and ERA are not only a reflection of our research impact but also of our researchers developing international profiles and the increase in citations of UOW researchers by academics around the world.

## Key facts

### \$557.9M

In research & innovation income received (2006-2015)

### 57,692

UOW research outputs available via Open Access (as of August 2016)

### 65 Start-ups

Supported via iAccelerate (since its inception in 2012)

## Research impact

UOW is and always has been about research excellence. From 3D bioprinting, materials engineering and medicinal chemistry, to social transformation, our research is solving complex real-world problems.

### EG.1 BIOPRINTING

Researchers at the ARC Centre of Excellence for Electromaterials Science (ACES) are collaborating with clinicians and researchers around the world to develop specialised 3D printers to build replacement body parts using living cells. Over the past five years, the team (led by Professor Gordon Wallace) has extended its printing capabilities to bioinks - opening up a new ability to include precisely placed living cells as organized components of 3D bioprint structures. An example of technology the team is developing is the Biopen device. Designed to put bioprinting into surgeons' hands, it will directly print into a defect during surgery. Other breakthroughs include the ability to print cells one-by-one via ink-jet printing, and developing a new form of bioprinting which allows the printing of cells "inside" a tubular shaped scaffold material.

### EG.2 ENERGY STORAGE

The Energy Storage Materials Research Group within the Institute for Superconducting and Electronic Materials (ISEM) at the Australian Institute for Innovative Materials (AIIM) is developing materials and technologies for a new generation of energy storage devices.



As electric vehicles become more popular, demand for lithium-ion batteries will stretch an already limited supply of raw materials and researchers are looking at creating efficient sodium-based batteries.

ISEM, which has a well-established world reputation on energy storage materials research, will develop a pilot-scale sodium materials production facility to prototype and develop the battery packs. UOW project leader and ISEM Director Professor Shi Xue Dou said it would significantly improve uptake of renewable power.

### EG.3 HOBBIT FIND

Subsequent research and evidence continues among UOW researchers following the discovery in 2003 of a previously unknown species, *Homo floresiensis*, in Liang Bua cave on Flores - an island in eastern Indonesia.

The fossil find was dubbed the "Hobbit" and further research in the 12 years following determined that the last-surviving Hobbits may have lived long enough to encounter early members of modern humans. The find, a partnership between the University of Wollongong and Indonesia's National Research Centre for Archaeology, changed the theories of evolution and dispersal across the globe.

Most recently, researchers discovered physical evidence of fire places at the Liang Bua cave in the Indonesian island of Flores, dating between 41,000 and 24,000 years ago. This narrows the time gap between the last Hobbits and the arrival of modern humans. The researchers used radiocarbon dating techniques and micromorphology to microscopically assess the sediments recovered from the site after samples were brought back to the University.

## Research commercialisation

UOW actively engages locally and globally with industry and government to transfer research into services and products. Knowledge discovery and adoption support the nation's innovation system.

### EG.1 BORON INNOVATION

Institute for Superconducting and Electronic Materials (ISEM) researcher Dr Zhenguo Huang has developed compounds containing boron, one of the critical chemical elements that make up the planet. UOW, through Dr Huang's discovery, recently signed a licence agreement with

Melbourne-based specialist chemical manufacturer Boron Molecular, which was spun out from CSIRO in 2001.

The licence agreement will enable Boron Molecular to use Dr Huang's processes used in making certain boron-based compounds.

Dr Huang said the strategic alliance between Boron Molecular and UOW would see the exploration of boron-based compounds for applications in rechargeable batteries and hydrogen storage, which have potential market value of billions of dollars.

### EG.2 WEARABLE TECHNOLOGY

Responsive clothing is the new frontier of sports and health technology, with UOW researchers leading the way in solutions that prevent injury and improve comfort.

The Intelligent Knee Sleeve, the Bionic Bra and the Lymph Sleeve are three examples of cutting-edge "wearable technologies" developed via collaborations among biomechanics researchers, material scientists, chemists, mechatronic engineers, clinicians, patients and industry.

The Bionic Bra is the world's first responsive bra that senses changes in a woman's breast motion and automatically tightens to provide breast support when needed. The Lymph Sleeve has the potential to transform the lives of women who suffer from breast cancer-related lymphoedema.

UOW has signed a \$471,000 collaboration agreement with BSN Medical in Germany, to develop an active lymph sleeve to treat lymphedema.

# New industries, new jobs



University of Wollongong

Economic Impact 2016

8

For decades, coal mining and heavy industry manufacturing have laid the economic, social and cultural foundations for the Illawarra. However, over the past three decades, the region has faced substantial economic challenges due to significant pressure on the region's traditional industries and is moving towards a more diverse economy.

Key sectors now include advanced manufacturing, logistics, finance, insurance, business and professional services, ICT, tourism, defence, health and education. Traditional manufacturing, mining and engineering sectors still remain important. The University realises that employing sectors are seeking new skills which the displaced workforce may not have. This makes it vital that we provide people with the necessary skills to compete in what is a vastly changed employment landscape. UOW is also committed to retaining graduates in the Illawarra. We have the fourth-largest IT student intake in Australia, producing half of all ICT graduates in NSW and one in seven IT graduates nationally.

UOW is driving change that is locally relevant to regional priorities but with global impact. Our research partnerships with business and industry produce greater levels of innovation and impact, and contribute to the creation of new enterprises by translating university research into results. We are economically engaged with not only local firms but also those outside the region and internationally.

Through our research and links we generate ideas, new technologies and new knowledge – which lead to new industries and new jobs.



## Transforming the region

UOW's Innovation Campus is the engine that drives the economic transformation of the Illawarra by creating jobs and industry and attracting businesses, research and investment. It makes the Illawarra a destination for innovators and investors.

The \$600 million Innovation Campus is an award-winning research, innovation and commercial precinct that helps activate new economic activity and regional jobs, as well as increase Australia's innovation performance. It is a seven-minute drive from the University's main campus and is set on 33 hectares by the beach at North Wollongong.

The Campus is a place where national and international businesses, leading researchers and students meet and translate products to commercial success. University research entities at the Innovation Campus include the Intelligent Polymer Research Institute (IPRI), The Australian Research Council Centre of Excellence for Electromaterials Science (ACES), the Institute for Superconducting and Electronic Materials (ISEM), the Electron Microscopy Centre (EMC), the Sustainable Buildings Research Centre (SBRC), and the Australian National Centre for Ocean Resources and Security (ANCORS). These institutes work in the development of "intelligent" innovative materials with the potential to regenerate damaged human nerves, the development of superconductors that make energy transmission more efficient, new techniques for sustainable building design and maritime law and security.

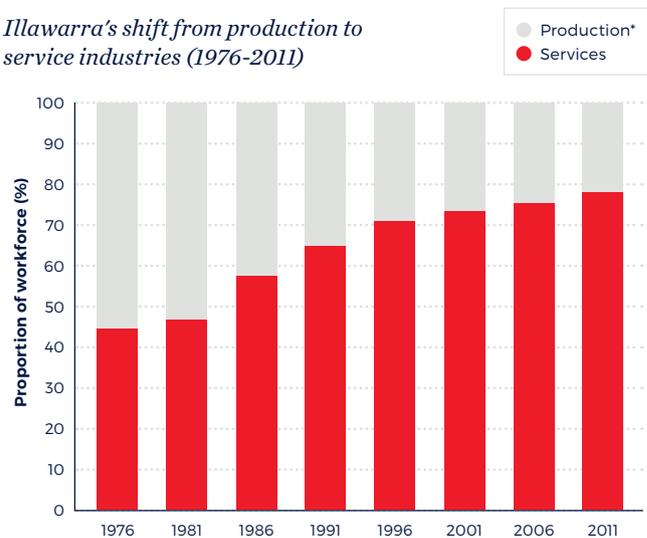
Several multinational and national companies are residents at the Campus and are strongly engaged with the University. These include NEC Australia and Telecommunications Systems Inc. Around 1500 people currently work at the campus, with employment expected to pass 5000 within the next 5 to 10 years.

The Campus is a master-planned community designed to encourage the creation of networks and interaction among like-minded entrepreneurs, mentors and advisers. Future focus at the Campus is planned around health and wellbeing; innovative manufacturing; sustainability; innovation; and IT and finance.

The Innovation Campus provides the chance for companies to establish or expand their presence globally through an Australian base. It is a cost-effective business location for international organisations. Organisations considering relocation to the Campus from outside the Illawarra region may qualify for NSW government incentives, while entering into a partnership with UOW can open up opportunities for research collaboration and technology transfers.

The Innovation Campus has enjoyed strong and ongoing support at all government levels. Within this context, a key aspect has been Advantage Wollongong (AW). It is a partnership between Wollongong City Council, the University of Wollongong and the NSW Department of Industry to promote Wollongong as a superior business location.

*Illawarra's shift from production to service industries (1976-2011)*



\* Production consists of agriculture, forestry and fishing, mining, manufacturing, utilities and construction.



## Developing an innovation ecosystem

The contribution and support of regional universities to local industrial knowledge and innovation processes is of considerable importance for State and Federal policy makers. The survival and success of local economies is being increasingly drawn to local universities as the source of a skilled workforce and new ideas.

As a key component of the regional innovation ecosystem, the iAccelerate Centre is the place for university graduates and Illawarra residents to turn their great ideas into business in their own community and share their knowledge and products with the world.

A striking building within the Innovation Campus, the iAccelerate Centre was opened in July 2016 and is the Illawarra's purpose-built business incubator and accelerator. The centre facilitates rapid acceleration of new businesses and attracts other businesses to the Illawarra. It gives entrepreneurs the chance to see the world as their marketplace while making the Illawarra their home.

The three-storey, 4000 square metre building features “plug and go” expandable space for up to 280 entrepreneurs. It houses a set of tailored acceleration programs aimed at rapidly developing and delivering technology-focused businesses. It is a place where people can explore new ideas and technologies, take risks and connect their work with others. The centre helps retain talent locally, giving University graduates the option of local employment and the opportunity to determine their own economic future through entrepreneurship.

The iAccelerate program – the first of its kind in Australia – provides the infrastructure, mentoring and education programs for great ideas to grow and helps connect entrepreneurs with funding opportunities. The iAccelerate initiative was launched by UOW in 2011, with programs operating in the Mike Codd Building at the Innovation Campus prior to the opening of the iAccelerate Centre.

Already, the iAccelerate program has supported 65 start-up companies, creating 143 jobs. Nine companies have had new product launches and in 2015 six companies have expanded their international presence. Female cofounders currently make up just under half of iAccelerate's 32 start-up companies (47 per cent). Since its inception, the initiative has been focused on increasing opportunities for women to participate equally in all aspects of entrepreneurial endeavours.

The ambition is for the program to create 500 direct and 1000 indirect jobs by the end of the decade, attracting \$70 million in investment to the regional and state economies. UOW Vice-Chancellor Professor Paul Wellings CBE said: “The iAccelerate Centre will have significant, far reaching and long-lasting positive outcomes for not only the Illawarra but also for NSW more broadly as innovative ideas reach the market sooner.”



## Blue economy on the rise

The Australian National Centre for Ocean Research and Security (ANCORS) is Australia's only multidisciplinary university-based centre dedicated to research, education and training on ocean law. The centre plays a key role globally in international ocean management, focusing on areas including maritime security, offshore jurisdiction and enforcement, ocean law, fisheries and management and the protection of the marine environment.

These elements are likely to become an economic force in coming decades as the emerging "blue economy" looks to strike the right balance between reaping the economic potential of our oceans with the need to safeguard their long-term health.

ANCORS research informs policymakers and contributes to real-world outcomes. In 2015, an MoU was signed between the Department of Immigration and Border Protection and UOW. Since its establishment in 1994, ANCORS has run regular specialist courses for navies, coastguards, policymakers and managers from maritime nations across the Asia-Pacific, Africa, the Caribbean and Latin America. It also provides consultancy services to many governments on a range of ocean law, policy and management issues, management of ocean resources and policy advice on maritime security, ship safety and marine pollution.

## Safeguarding troops

Welding and automation expertise developed at UOW is supporting Australian manufacturing as part of a major new defence contract. UOW's welding automation group will be a critical part of the estimated \$1.3 billion contract awarded to Thales Australia to supply the Australian Defence Force with 1,100 four-wheel drive vehicles over three and a half years from 2017.

The highly mobile armoured vehicle, known as the Hawkei, will provide Australian soldiers with increased protection and mobility. The Hawkei follows on from the success of the larger Bushmaster vehicle, also developed with UOW's help.

The contract will lengthen the welding group's research and development contribution to defence projects, particularly in robotic welding automation and armour materials, as part of the Defence Materials Technology Centre (DMTC). DMTC is a joint venture between Defence, industry, universities and government

research agencies. The DMTC NSW node was established at the University of Wollongong in 2008 with government and industry support to provide the defence industry with materials and manufacturing solutions to enhance Australia's defence capability.

The success of the group's research and innovation was recognised when DMTC's Armour Applications Program won the 2013 Defence Science and Technology Organisation Eureka Prize. UOW is now engaged in providing DMTC program management and research for the new maritime platform program recently announced by the Federal Government in the recent Defence White Paper. In particular, it will be looking at applying its expertise and the technology developed for other platforms to the fabrication of submarines and surface ships.

## Tackling Global Challenges

UOW's Global Challenges Program is designed to encourage and develop creative and community-engaged interdisciplinary research that will help drive social, economic and cultural change in our region, which will be translatable across the globe.

The program has to date built a strong research network comprising 300 university and industry organisations in Australia and across the globe.

The program focuses on three challenges:

- Living Well, Longer – providing strategies to assist our ageing population live healthier, happier lives.
- Manufacturing Innovation – transforming our manufacturing base from the traditional industries of the past to innovative manufacturing of the future.
- Sustaining Coastal and Marine Zones – developing ways to better sustain our coastal and marine zones.

Since inception, Global Challenges has supported 58 research projects, with 80% of these still active. In that time, \$1.9 million of direct research funding has returned \$10.4 million in external funding – more than a five-fold return on investment. In 2015 alone, \$860,000 of direct research funding has returned \$2.5 million.





## Southern Manufacturing Innovation Group

Innovative manufacturers in the region have joined with UOW researchers to form the Southern Manufacturing Innovation Group (SMIG), which comprises 13 Illawarra-based manufacturers. SMIG was launched in May 2015 and is focused on developing innovation through collaboration between businesses and University researchers.

Discussion topics are determined in conjunction with participating companies and may include areas like new product development and process improvement. Researchers from a range of disciplines at UOW will present their research in those areas. Meetings have been held where industry partners describe their innovation processes and changes and others in which UOW presented information on research in advanced materials and robotics.

## Pitching perfect

UOW Pitch is for UOW students and staff who possess a creative mind and are inspired by innovation. We target bright, energetic entrepreneurial-minded people who are passionate about their ideas but may lack the necessary financial resources to pursue them.

The competition promotes student and staff involvement in entrepreneurialism and the commercialisation of ideas, inventions and research outcomes at UOW.

There is also iAccelerate Pitch, which is a program that provides the opportunity for iAccelerate start-ups to practice, polish and ultimately pitch their innovative business idea to a panel of investors and experts. It allows local, national and international investors and the wider business community to engage with the start-ups at UOW's iAccelerate Centre.

The program consists of peer-to-peer and panel pitching opportunities, professional presentation training, mentor matching and a final pitching event to industry experts and potential investors.

## Steel going strong

Australia's proud standing as a world-class steel manufacturer is under threat due to a range of economic factors, both global and domestic. By drawing on the combined capacity of leading universities and the steel industry, UOW's Steel Research Hub delivers manufacturing innovations that will ensure the industry's global competitiveness. The Australian Research Council (ARC) Research Hub for Australian Steel Manufacturing, based at UOW, is focused on research and development programs that address manufacturing techniques and processes, innovation in new products and best-practice pathways for bringing new ideas to market.

Product innovations include a project to develop a self-cleaning, anti-microbial organic coating for painted sheet steel to prevent the build-up of mould, algae and other bacteria on roofs, particularly in humid environments. Also under development is a new roofing system that incorporates thin-film solar panels and aesthetically pleasing designs that can produce energy, heating and cooling for new Australian buildings. The system was used to great effect in construction of the Illawarra Flame house, a retrofit project built by UOW and Illawarra TAFE students that went on to win the international Solar Decathlon China 2013.





University of Wollongong

Economic Impact 2016

13

## Australian Institute for Innovative Materials

The Australian Institute of Innovative Materials (AIIM) has been designed to bridge the gap that often exists between research and industry, by allowing researchers to further develop their processes and devices and test them for real-world applications.

AIIM comprises the research centres of the Intelligent Polymer Research Institute (IPRI), the Institute for Superconducting and Electronic Materials (ISEM) and the Electron Microscopy Centre.

AIIM is also the lead node for the Australian Research Council's Centre of Excellence for Electromaterials Sciences (ACES).

Researchers here are carrying out important work in a range of fields, from energy generation and storage including next-generation solar cells, new battery technologies and thermoelectric modules for converting waste energy into electricity, through to advanced medical bionics.

They are dealing with some of the great challenges of today's world to improve the productivity of existing industries and help create new ones.



### CASE STUDY: Education boost

A UOW-backed start-up that is helping change education through affordable 3D printing technology picked up two major prizes at national innovation showcase Tech23 in 2015. Me3D, part of UOW's start-up incubator iAccelerate, designs and manufactures affordable 3D printing equipment that supports education, from students to professionals.

The company was among 23 of the very best Australian start-ups at Tech23, where it won the AMP Amplify Award for Best technology start-up founded by a woman and the REA Group Digital Disruptor Award. Tech23 is a national celebration of Australian innovation, with founders drawn from across the country and boasting connections with Australia's leading R&D organisations.

Me3D was founded in late 2013 by researchers at UOW's Australian Institute for Innovative Materials (AIIM) and a UOW alumna. The company combines experience in design, engineering and economics to build a business around designing and manufacturing a range of 3D printers specifically for teaching additive fabrication and enabling other science, technology, engineering and maths learning in schools. There is a local community hub of expert users able to assist with this technology and the equipment is manufactured locally through an Australian Disabilities Enterprise.

# UOW as an enterprise



UOW is among the top five employers within the Illawarra, employing 2,659 full-time equivalent (FTE) staff in 2015.

The University's expenditures include wages and salaries, purchase of goods and services, maintenance of buildings and grounds, and government charges. This expenditure has flow-on impacts throughout the economy, as employees spend their income and UOW's local suppliers buy inputs to their operations to meet UOW's commercial needs. A total of \$342 million in labour income is directly generated by UOW operations.

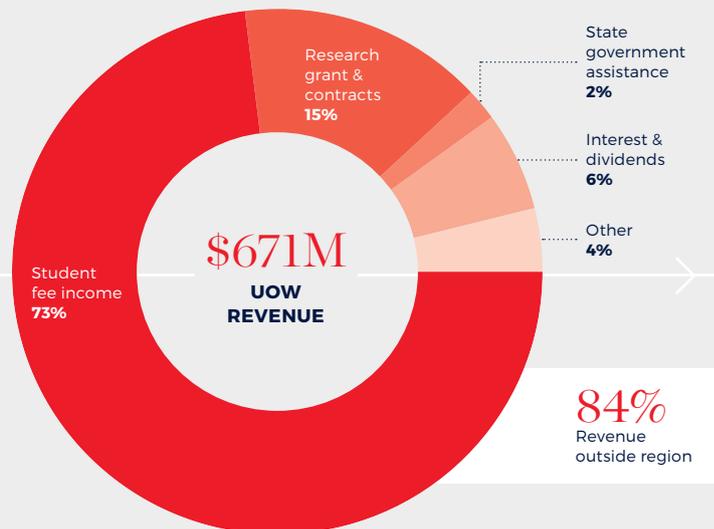
UOW is committed to maintaining an efficient and productive university focused on adaptability and financial stability.

## Key facts

<b>\$613M</b> of value added	<b>25+</b> commercial retail operators	<b>Top 2%</b> of unis worldwide QS World University Rankings 2015/16
<b>9</b> campuses	<b>2,659</b> direct FTE employees	<b>1st</b> in NSW Quality Indicators for Learning and Teaching 2016
<b>400+</b> degrees on offer		

## UOW Operations

-  Teaching
-  Research
-  Commercial



# Good vibe for business

The University of Wollongong provides many opportunities for local enterprises and suppliers to run successful operations on campus which also contributes to local employment. At Wollongong Campus alone there are 18 food outlets, two banks, seven coffee shops, a hair and beauty salon, bookshop and newsagent, convenience store, post office, travel agent and a doctor and dentist.

One of the many enterprises at UOW's main campus in Wollongong is boutique café Espresso Warriors.

The café was established in 2015 at the Early Start building, soon after the \$44 million centre was opened. The café is open seven days a week and in addition to catering for the university's staff, students and visitors, also provides meals for families visiting the Early Discovery Space – Australia's only dedicated "children's museum".

"We get everyone from families to cyclists and people walking their dogs," says store manager Bella Hunter, adding that many residents come by during weekends when it is quieter.



*"The vibe here is great – there's a lot of active people so we're very focused on providing a health-conscious menu"*

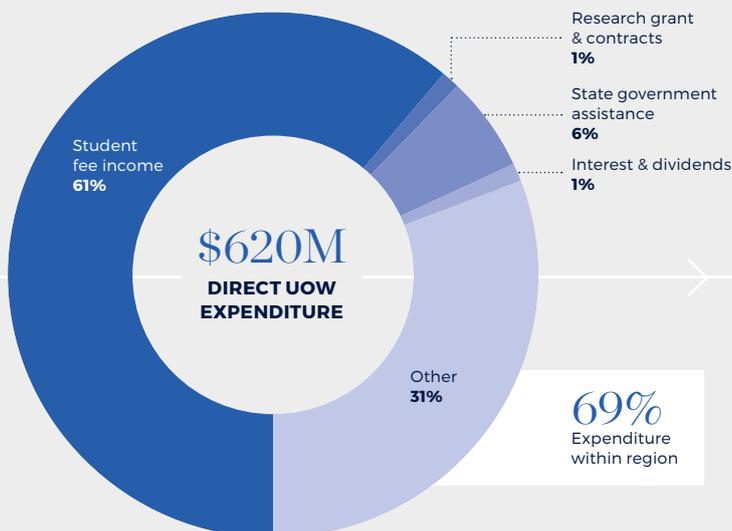
"The vibe here is great – there's a lot of active people so we're very focused on providing a health-conscious menu.

"It's great to work in a place where there's such a great mix of people."

Ms Hunter says business has been constant ever since opening, estimating an average of 600 customers a day. Ms Hunter moved to Wollongong from Canberra three years ago with the intention of staying just six months, but has fallen in love with the area and is staying put.

"A lot of other people who work here have travelled from other locations," Ms Hunter says, adding that two staff members are from Sweden and another from the UK. They all range in age from their 20s to 40s.

"We've all moved to Wollongong for some reason or another," she says.



	ILLAWARRA	NSW	AUS
<b>Gross output</b>	\$759M	\$801M	\$960M
<b>Labour income</b>	\$413M	\$423M	\$463M
<b>Value added</b>	\$506M	\$526M	\$613M
<b>Jobs</b>	3642 FTEs	3808 FTEs	4422 FTEs

**\$1M** UOW operations output Leads to **\$836,000** Output elsewhere in the economy

# Investment in infrastructure for the future



The University invests to enhance our campuses and align our facilities to changing centres of population and emerging research priorities.

From 2010-2015, UOW has directly invested more than \$471 million in major construction and refurbishment projects, with the total impact of these projects adding over a billion dollars in total output to the economy.

During 2015, the University has invested \$81 million in construction and refurbishment projects.

The University's capital expenditure plans will release in excess of \$300 million between 2016-2020.

Capital expenditure also adds to economic activity and creates jobs in industries supplying into these projects.



## Key facts

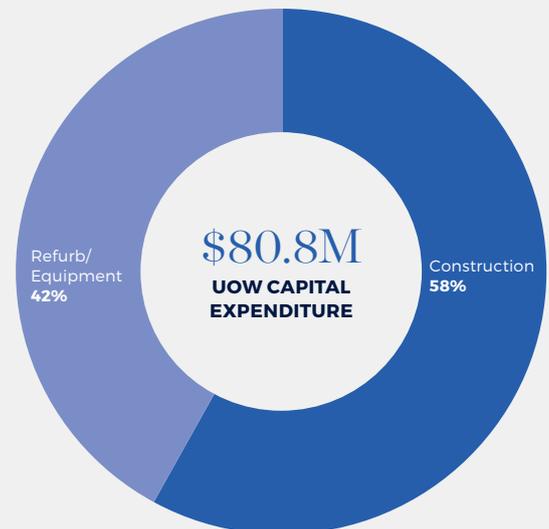
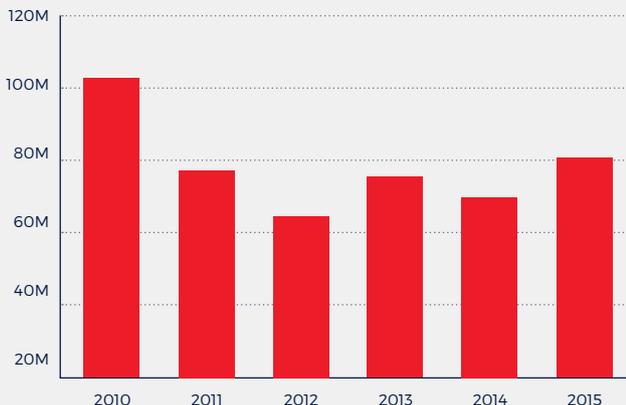
**\$471M**

in direct capital investment from 2010-2015

**\$300M**

in capital expenditure to be released between 2016-2020

### CAPITAL SPEND (\$)





## iAccelerate Centre

The \$18.5 million iAccelerate Centre was opened in July 2016 by NSW Minister for Industry, Resources and Energy The Hon Anthony Roberts MP. The centre supports students, staff and the greater Illawarra community by offering practical and engaging programs to help build businesses fast with a focus on mentorship, entrepreneurship workshops and seed funding.

The building's design pays homage to Port Kembla and the Illawarra's export heritage and heralds a new era where innovation, technology and ideas are exported from the Illawarra to the world. Structural pieces were provided by NSW Ports and sourced from Port Kembla and weathering steel was used throughout the building to show support to the local steel manufacturing industry. In 2013, the NSW Government announced \$16.5 million in funding for the iAccelerate Centre as part of the Restart Illawarra Infrastructure Fund.



## Molecular Horizons

The University of Wollongong's new \$80 million research facility is dedicated to illuminating how life works at a molecular level to help solve some of the biggest health challenges facing the world.

The University has invested in a suite of revolutionary technical technology including Australia's most powerful biological electron microscope, the \$7 million Titan Krios Cryo-EM. This microscope and other cutting-edge equipment housed in the facility will attract and retain some of the world's best researchers in the molecular science field.

The Molecular Horizons facility demonstrates the University's commitment to impact-driven research where the world's best molecular research will be put into practice to improve and save lives.

Construction of the facility will commence in mid 2017 and is expected to open in 2019.



## South Western Sydney Campus

The University of Wollongong's new South Western Sydney Campus will be located in the heart of Liverpool. It will provide world-class educational opportunities for the people of Liverpool and the Great South West and provide greater choice, so students have the option to study close to home.

Offering undergraduate and postgraduate degrees that meet the future demands of the Great South West and beyond, the South Western Sydney Campus will open in February 2017 at an interim facility before a long-term campus opens at Liverpool's new Civic Place for the 2019 academic year. The University is also planning to open a School of Nursing to train the next generation of nurses and encourage nurses to study, train and work in the Liverpool area.



## Accommodation

Student accommodation at UOW is undergoing a major expansion and transformation in 2016 through a multimillion-dollar deal that is the first of its kind in Australia.

UOW has entered into a long-term licence agreement of its entire student accommodation portfolio with Living + Learning Partners (L+LP) consortium, who is investing into newly-built on-campus residences, taking the number of beds the University can provide to students to more than 2500.

The new accommodation is being built at the eastern end of Northfields Avenue and at the Kooloobong precinct at the western end of Northfields Avenue. To accommodate this growth, a new multi-storey car park will be located on the site of the existing south-western car park.

# Wollongong Campus Master Plan 2016-2036

The University has been able to continually improve the quality of its unique campus due to enduring support from regional business partners, institutions and the community. In turn, the University has made many of its facilities available to the community.

The University's campuses are constantly evolving with the changing needs of community, education and industry. This is why the 2016-2036 Wollongong Master Campus Plan has been developed.

It is a guiding document that not only articulates UOW's visions for the future, but also allows flexibility to respond to future

opportunities and challenges. The plan is vital in guiding the physical development of the main campus over the next 20 years. While it relates specifically to the landholdings of the Wollongong Campus, it also considers potential aligned projects and partnerships in surrounding neighbourhoods and in Wollongong more broadly.

The campus forms part of an important network of well-connected economies and partnerships across the city. This will contribute greatly to the economic, social, cultural and creative success of Wollongong, and provide a major hub of employment for the region. UOW's 2016-2020 Strategic Plan sets out that capital expenditure plans will release in excess of \$300 million within the next five years.



## Early Start

The most sophisticated early childhood teaching, research and community engagement initiative ever undertaken in Australia opened at UOW in July 2015. Early Start consists of a \$44 million transformational infrastructure investment together with a continuing commitment from UOW and its partners.

The Early Start initiative is focused on creating educational programs, experiences and networks that enrich the way we understand and interact with children, families and communities.

The initiative aims to give children the best possible start in life and is particularly focused on bringing about better outcomes for children from regional, rural, remote and disadvantaged communities.

The vision for Early Start became a reality in 2012 when UOW received a \$31 million grant from the Federal Government to build the facility. During its planning stage, UOW also received its largest ever philanthropic gift of \$7 million from a private sector donor (the Abbott Foundation) specifically for the establishment of the Discovery Space.



## Sciences Teaching Facility

The \$35 million Sciences Teaching Facility, opened in May 2015, is a teaching space built to revolutionise the way sciences are taught at UOW.

The facility brings together up to 460 students at a time, with laboratories for biology, chemistry and earth and environmental sciences, and lecture halls that can accommodate classes of up to 240 people.

The state-of-the-art space is adjacent to the SMART Infrastructure Facility and the Illawarra Health and Medical Research Institute and will be one of the first in the world to receive the latest in digital wireless microscope technology from renowned scientific technology supplier Leica.



# Students & visitors



Students are the lifeblood of the University and are a major source of economic stimulus to the broader community as many of them live and spend in the Illawarra region.

Students also make broader economic and social contributions through casual or part-time work, or participation in volunteering, sport and other community activities. Visitation to the region for UOW-related events, the UOW Science Centre, the Early Start Discovery Space at Early Start, the Recreation and Aquatic Centre, UniBar

events, and student outreach and enrichment activities also create significant economic benefits as well as community engagement. Both students and visitors contribute to the economy through the consumption of goods and services.

UOW attracts a large number of international students who contribute to Australia's and NSW's export earnings, representing a key source of income growth for the nation over the coming decades.

In 2015, UOW had 32,208 students enrolled of which 18,888 were domestically enrolled (onshore) and 13,414 were enrolled offshore. UOW student numbers have grown strongly over the past 15 years.



## Key facts

**\$597M**

of value added  
(student spending)

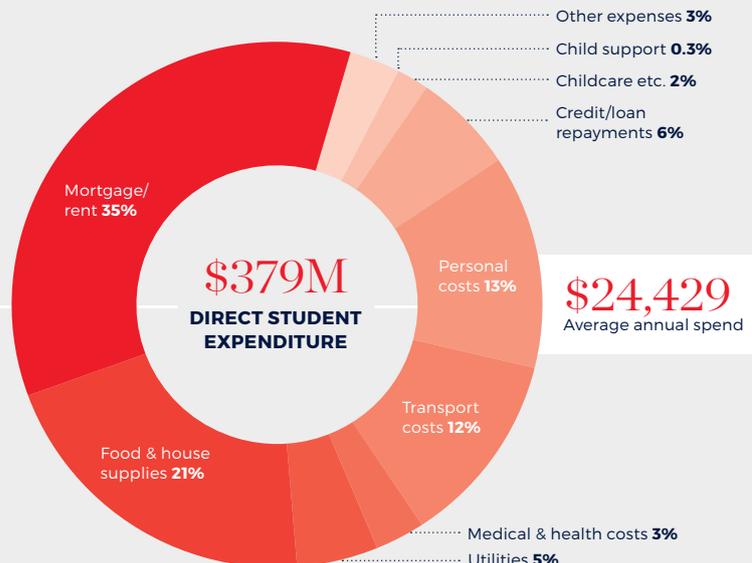
**32,208**

students enrolled

**13,539**

international students

- International
- Domestic
- Science Centre
- Grad ceremonies
- Conferences
- Events
- Early Start



# Education a growing element for tourism

Destination NSW figures show visitors to UOW for conferences, graduation ceremonies and visiting friends or family members who are working or studying at the University are an important and growing element of the region's tourism industry.

Education is the third top purpose for people visiting the Illawarra sub-region, representing 11.9% of visitors in the year ending December 2015, compared to the NSW average of 5.2% for the same period. Visiting friends and relatives was the second top purpose for people visiting the Illawarra sub-region.

Destination Wollongong general manager Mark Sleigh says the University's contribution to tourism is important for the local economy. "Getting people here in the first place is the hard part and getting them to come back again is easy," he says.

"We're finding many people are coming to visit their friends and family and events such as graduation are such an opportunity for the city – there's so much more on offer for visitors than just staying overnight. We'd like to work closely with



*"Getting people here in the first place is the hard part and getting them to come back again is easy"*

the University to give students more information on what to do in the region."

Mr Sleigh says the newly opened iAccelerate Centre, in particular, is a tremendous boon for the region in terms of growth in jobs, industry and investment. "All sections of the economy can benefit from iAccelerate," he says. A recent visit to the centre had Mr Sleigh excited by the potential for not only job growth, but the chance to attract more cruise ships to the area.

During the visit, he met with Theme Media, an iAccelerate start-up working in the area of travel photography and

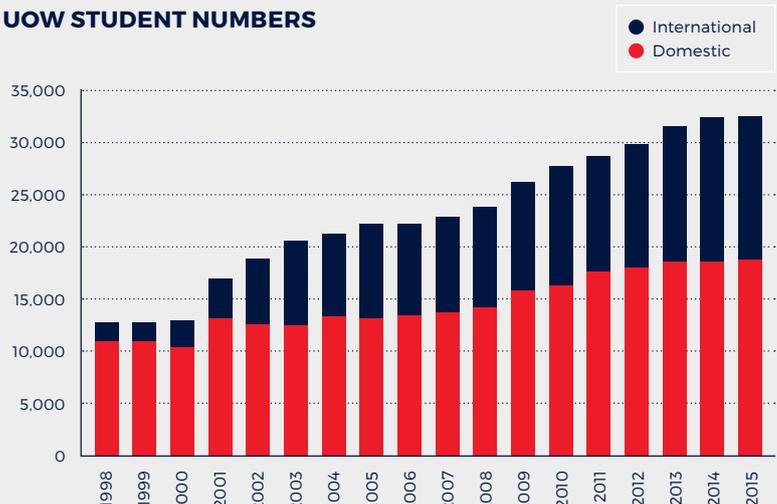
software for the cruise ship market. Currently providing ship-based photography for their existing cruise ship clientele in Norway, Theme is building a server-based software platform that allows passengers to store images, GPS tag, create a feed (share) and build ebooks, pbooks and videos from their voyage experience.

Mr Sleigh came across this initiative just weeks before Royal Caribbean's Radiance of the Seas arrived in Wollongong for its maiden visit in October 2016.

	ILLAWARRA	NSW	AUS
<b>Gross output</b>	\$634M	\$743M	\$1.201B
<b>Labour income</b>	\$178M	\$204M	\$315M
<b>Value added</b>	\$308M	\$360M	\$597M
<b>Jobs</b>	3553 FTEs	3986 FTEs	5747 FTEs



**UOW STUDENT NUMBERS**



Source: UOW Performance Indicators Unit, 2016.



## Science attraction

Around 50,000 people visit UOW’s Science Centre and Planetarium at the Innovation Campus every year, making its interactive exhibitions, science shows, planetarium and observatory with a research-quality telescope, one of Wollongong’s most popular tourist attractions. The visitors each year include about 15,000 school students, many from outside the area.

First opening its doors in 1989, the centre runs educational science and planetarium shows, and engages with the local community through its volunteer and internship programs. Schools make up 32 per cent of the centre’s visitor numbers and that is in part because of the STEM program (Science, Technology, Engineering and Mathematics). A Makers Space is being planned for the centre and aims to give both schools and the community an opportunity to create their own science and technology-based projects. It will include equipment such as 3D printers, laser cutters and textile machinery that would be available for people to get trained on and have access to.

“We are hoping this space can act as a feeder into the iAccelerate Centre, so if someone has a great idea, we can assist them in turning it into something real, then they can go across into iAccelerate where they can get further help to hopefully create a new business in the Illawarra,” says Stuart Creal, who is Interim Director of the Science Centre and Planetarium.

Another initiative planned for the centre is a workshop and activity space for school students, where up to 60 students, mentored by an intern from the University, can take part in a “make-it challenge” using materials such as Lego robotics, blocks, sticks and cardboard. Students will also be introduced to some of the high-end research and science undertaken at the University – they will be able to engage with a scientist-in-residence and have access to a small, informal lab environment.

Presently, the Science Centre and Planetarium generates 66 per cent of its income from visitors and has a team of 20 volunteers who give in kind as well as in financial support. The planetarium is the largest in NSW.





## Key facts

**50,000**

Science Centre visitors each year

**51**

events held at the Unibar in 2015

**645,000**

visits to the University Recreation and Aquatic Centre in 2015

**102,000**

visitors to Early Start Discovery Centre in a year

**240**

functions were held in the UniCentre function room in 2015

**3rd**

Education is the third top purpose for people visiting the Illawarra

## Visiting for fun

The Early Start Centre represents a new way of thinking about how universities can share their intellectual capital and research with the community and the Early Start Discovery Space is Australia's only dedicated "children's museum".

Designed for children from birth to 12 and their accompanying families, carers, educators and teachers, the discovery space provides play-based learning so that children can take control and share their imagination with others. Many experiences accommodate a range of social, physical and intellectual capabilities, aimed at creating a learning journey that is playful, fun and meaningful. Both adults and children can participate in these experiences, with the aim being that the activities will ignite a love of learning to last a lifetime.

The Discovery Centre is open to the public six days a week and has proved enormously popular, with more than 102,000 people visiting in the first 12 months of opening. Among the visitors, 63% of general entry visitors are from the Illawarra and South Coast.

## UniCentre

The UniCentre is a non-profit organisation receiving its income from trading operations. It provides services to support the campus communities, including food, beverage and coffee services, functions and events, the UniBar, UniShop, child care and post office. In the past year, the UniBar presented 51 events, catering for 17,448 guests, with the majority of tickets (52%) issued to non-students. A total of 22,995 guests attended 240 functions and events held in UniCentre function room through the year – with 36% of these hosted by organisations external to UOW.

## Sporting facilities

More than 645,000 visits to the University Recreation and Aquatic Centre (URAC) were recorded in 2015.

A wide variety of community groups use the sporting facilities - from learn-to-swim classes to local schools staging their swimming carnivals in the 50-metre pool, to junior coaching clinics, junior sports squads that train and play on the sports fields and people attending fitness classes at the well-equipped gymnasium.

High profile Australian and international sporting teams have used the facilities as training bases – from the United States and Australian national swimming squads to the Wallabies rugby union team and the St George Illawarra Dragons in the National Rugby League. URAC also houses the headquarters of the Illawarra Academy of Sport – a regional junior sports academy.

The Eastern University Games, for university and TAFE students from NSW and the ACT, was hosted by the University of Wollongong in 2016 in partnership with Destination NSW and Wollongong City Council. The Games are a key event on the eastern university sporting calendar and attract about 3000 competitors each year, competing in up to 20 different sports. These Games prove a significant social and financial boost to the region, as was the case in 2004 and 2013 when Wollongong last hosted the Games. The Games rely on the participation of the local community to make up the volunteer workforce.



# Making a difference in our communities



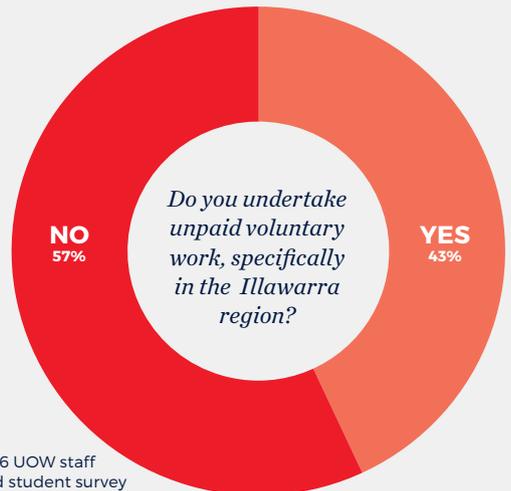
University of Wollongong

Economic Impact 2016

The University of Wollongong has a longstanding history of supporting its multiple local communities with the intention of creating positive social impact.

We provide important cultural, intellectual, architectural, aesthetic, artistic, athletic, recreational and medical resources which can add to the vibrancy, creativity and dynamism of our local communities.

UOW students and staff also participate and make important contributors to local projects through volunteering and other activities.



2016 UOW staff and student survey

# Impact of volunteering

University of Wollongong students and alumni are making an economic and social impact throughout the region by serving as volunteers both within the university and throughout the broader community.

Volunteering not only creates strong, vibrant local and regional communities - it also has global impact. It is any community's most valuable hidden asset.

Volunteering contributes to social inclusion and social capital in Australia (Leong 2008; Wilson and Mayer 2006) and it can help reduce feelings of personal isolation, offer people skills, social contacts, support a greater sense of self-worth and challenge the stereotypes we have of different social groups. The extent of volunteering can never be fully captured in financial statements as it also an immeasurable source of knowledge, cultural and recreational exchange.

Volunteering provides university students with experiences which contribute to their personal and professional development and can provide pathways to paid employment. Student engagement enables them to make a valuable contribution to their education and make a difference to their community by acquiring lifelong skills, values and understanding.

For Sahithya Soundearajah, volunteering also gave her the feeling of being welcomed in a new country.

Sahithya arrived to the University of Wollongong from Colombo in Sri Lanka and is in her third year of an Arts degree majoring in History and Cultural Studies.

The 21-year-old learned about the value of volunteering when her mother took her to visit an orphanage when she was a four-year-old to help distribute chocolates to the orphans. As an older girl Sahithya would help teach maths and English at the orphanage. "I realised that life wasn't always happy and not everyone gets the same opportunities that I do," Sahithya says.

So when Sahithya made the move from the bustling commercial centre of Colombo to "the more quiet" Wollongong, it was always in her mind to continue to find a way to help others.

"Initially when I came to Australia, I was scared to talk to anyone and I didn't think anyone would talk to me or like me," Sahithya says.

Her first year was busy ("because I had bad time management then"), so it wasn't until 2015 that Sahithya was able to allocate time to volunteering when she was encouraged by a friend who volunteered as a UOW Wellbeing Student Ambassador.

Sahithya is now a volunteering dynamo. She is currently a UOW Wellbeing Student Ambassador (advocating health and wellbeing to students), helps with the UniCrew (assisting at events), Early Start Discovery Space (as a guide engaging children and adult visitors), Elevate (enriching students' personal leadership skills), the Community Volunteering Project (Sahithya has chosen to



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*"It gives me a good feeling – I have a sense of belonging here."*

work with local organisation HeadSpace as she's experienced mental health issues in her family) and the Aboriginal Indigenous Mentoring Experience (serving as a mentor to a local Indigenous student).

"We have free time now as students, so now is the time to volunteer, as you won't have that time when you're working," Sahithya says with wisdom beyond her years.

And she realises that volunteering not only benefits others, but also herself.

"I've expanded my ability of speaking up and making new friends," Sahithya says of the impact volunteering has had on her.

"It gives me a good feeling – I have a sense of belonging here. The University makes an extra effort to make us volunteers feel welcome.

"When I leave the University, I will have contributed something back to the University and the community, because the University has given so much to me."

For now, Sahithya is aiming to achieve one of the first UOWx awards to be presented. The award formally recognises students who take on five experiences outside their degree – including volunteering - and is used alongside students' transcripts to highlight their achievements.

UOWx is a co-curricular learning and recognition initiative which was started by the University of Wollongong in 2015 to provide greater access to and recognise learning that takes place outside the formal curriculum – particularly through volunteering within the University and in the broader community.

Students engage in a multitude of activities that provide strong opportunities for "real-world" learning ranging from volunteering, peer mentoring, and being a student ambassador, to running clubs and societies and engaging in cross-cultural experiences.

# Volunteers the lifters of economy

Ann Britton hasn't let a busy life get in the way of volunteering her time to help others.

"People refer to lifters and leaners in the economy – well, volunteers are the lifters," Ms Britton chuckles.

The 60-year-old has been many things including a bank teller, an internal auditor and a geologist and is now studying a Bachelor of Nursing Advanced at UOW's Shoalhaven Campus.

Ms Britton has moved around Australia a lot – she moved to Nowra from Western Australia just over three years ago – and enjoys volunteering not only for helping others but to also help her get to know people.

"My father was a volunteer for lots of things and we were pretty much brought up to believe that what other people go through counts and that if you can help you should," Ms Britton says.

On top of studies, Ms Britton works casually as an assistant in nursing at an aged-care facility and at Shoalhaven Hospital. She also volunteers with the State Emergency Service and is a PASS leader (guiding other UOW students through course material). She is looking to also volunteer with AIME – the Australian Indigenous Mentoring Experience (helping indigenous students finish school).

"AIME would not be altruistic – I'm hoping to go to Alice Springs after I graduate," Ms Britton says, adding that she's also considering volunteering with Telecross.

"What I love about volunteering is that you get to know people who have similar interests to you and it opens up opportunities," she says.

*"People refer to lifters and leaners in the economy – well, volunteers are the lifters"*

"It can be useful job-wise and it provides you with social connection. In a small community, the sense of connection is great."

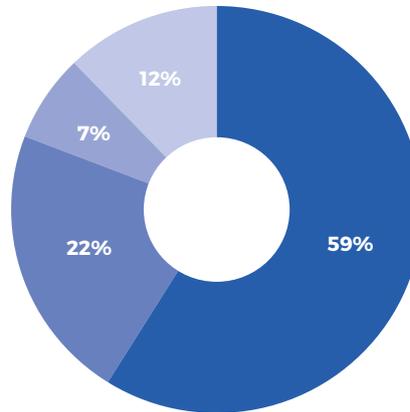
Ms Britton stresses that volunteering is about doing something you enjoy and knowing your limits on the time and skills you have available.

But the reward of gaining friendships is something you can't put a price on, she says.

## Impact of volunteering

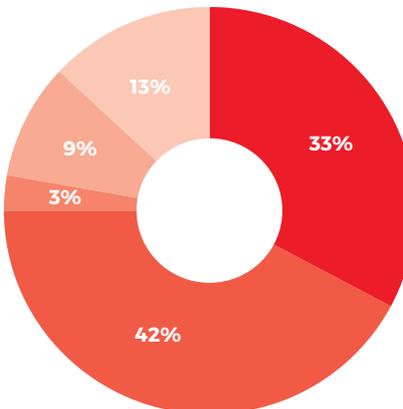
The results of a 2016 survey on volunteering, in which 1,379 respondents participated include:

- Of those respondents who identified themselves as volunteers, 59 per cent commit to 1-3 hours of volunteering each week. A further 22 per cent commit to 4-6 hours of volunteering per week. The remaining 19 per cent of respondents commit to more than 7 hours of volunteering per week.
- More than one-third of respondents that commit to regular volunteering have increased their commitment since joining the UOW community. This may reflect the availability of volunteering options for new staff and students and the inclusive culture of the UOW community.
- Of the survey respondents that identified as volunteers, 42 per cent volunteered in the Education/Training/Youth Development sector, perhaps reflecting the availability of volunteering options on campus. A further 33 per cent volunteered in the Community/Welfare sector, 13 per cent in Sport/Physical Recreation, 10 per cent in the Health/Aged/Disability sector, and 3 per cent in Emergency Services/Disaster Relief (for instance, the Rural Fire Service).



*Over the last year, and on average, how many hours in a week would you work as a volunteer?*

- 1-3 hours
- 4-6 hours
- 7-9 hours



*Broadly speaking, in which sector do you contribute?*

- Community/welfare - other
- Education/training/youth development
- Emergency services/disaster relief



## Key Facts

**\$190,183**  
to charity in the past  
three years

**15** weeks with  
**1041** Indigenous  
high school students

**\$490,000**  
in funding through the  
Community Engagement  
Grant Scheme

**296**  
UOW students have  
mentored with AIME

## AIME and Woolyungah

The Australian Indigenous Mentoring Experience (AIME) at UOW was established in 2008 to help redress imbalance in high school completion rates between Indigenous and non-Indigenous students. The program pairs student mentors one-on-one with Indigenous high school students for an hour a week for 15 weeks, while others are involved as tutors at afternoon learning sessions at the Aboriginal Corporation Centre in Wollongong and as members of tutor squads which go to schools during school hours to help the students.

In 2015, AIME UOW has worked with 1041 local Indigenous high school students in 2015 between Eden and Sylvania and out to Moss Vale and Camden (39 local high schools). At the Wollongong campus, 470 mentees have accessed the program, while 571 mentees have accessed through the South Coast campuses of UOW. 296 UOW students have mentored with AIME in 2015 – 197 at Wollongong, 49 at Shoalhaven, 21 at Batemans Bay and 29 at Bega.

The Woolyungah Indigenous Centre is committed to increasing the participation of Indigenous Australians in tertiary education. The centre provides programs and facilities that encourage and support Indigenous Australians from entry to University through to successful completion. The centre provides tutorial assistance and access to computer rooms, study areas, a kitchen and common room area.

## In2Uni – Guiding the way in educational journey

In2Uni programs are committed to raising the educational aspirations and academic capacity of students from a range of backgrounds, particularly those groups currently underrepresented in higher education in our local UOW communities.

Launched in 2011, the program centres on the involvement of current University of Wollongong students, who as mentors, engage with our local school students. Through a variety of activities, they increase the students' aspiration and awareness of higher education. The Outreach and Pathways unit, which includes In2Uni, is funded under the Higher Education Participation and Partnerships Program (HEPP). This program aims to ensure that Australians, regardless of background, have the opportunity to study at university or other higher education facilities. In 2015, In2Uni engaged with and reached 66 primary schools, 36 high schools and 10,183 primary and high school students.

## UOW Cares

UOW Cares enables UOW staff to make regular tax-free donations to charitable organisations through the payroll system. UOW Cares provides a regular funding stream for nine charities: SCARF, the Smith Family, Landcare Illawarra, Headspace Wollongong, Autism Spectrum – Aspect South Coast School, Indigo Foundation, the Fred Hollows Foundation, AIME and UOW's Learning and Development Fund. UOW staff have donated \$190,183 via UOW Cares from 1 January, 2013 through to 30 June 2016.

## Community Engagement Grants Scheme

The University's Community Engagement Grants Scheme (CEGS) - an innovative program which supports projects that benefit that local community - celebrated its 10th anniversary in 2015.

It was introduced to encourage and support collaborative University-community projects which have mutually beneficial outcomes. To date, more than \$490,000 has been awarded to 59 projects.

CEGS is a UOW initiative representing our commitment to supporting those seeking to achieve the goals of our communities. The projects are innovative, starting small and dreaming big: they create new and sustainable approaches, connections and futures.

## Positive social impact

In recent years, the University of Wollongong has created the Community Investment Program in order to maximise the potential of our assistance within communities. Through this program, UOW hopes to support regional communities, with a focus on cultural, environmental and economic developments. UOW recognises its social responsibility to local communities and hopes to make a real difference to these communities through the sponsorship of a variety of programs. Some of our partnerships include: Wollongong Conservatorium of Music, Illawarra Academy of Sport, Illawarra Business Chamber, Eastern University Games, Bundanon Trust, Life Education and Southern Stars Spectacular.

# Enhancing community health

The University of Wollongong is committed to improving the health and wellbeing of people living in rural, regional and remote areas of Australia and has become a leader in this space.

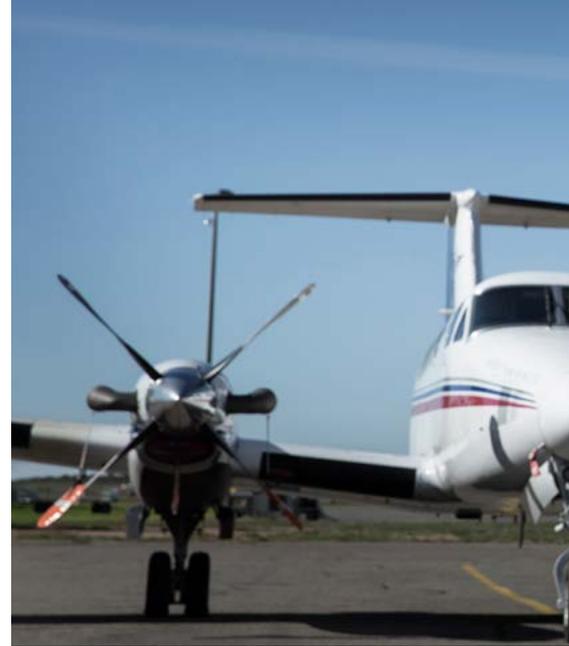
The University has demonstrated this commitment to enhancing community health from the training of doctors and nurses with placement programs in regional and rural settings to world-class research and programs targeting Indigenous health, early childhood, ageing, dementia and mental health.

The University has partnered with an extensive network of communities and health providers across NSW and across a range of settings and disciplines including general practices, hospitals, allied, community and Indigenous health services.

The University has earned a proud reputation for nursing education since the School of Nursing was established in 1991 and in that time, more than 6000 students have graduated through our nursing degrees. The school is committed to strengthening the rural and regional nursing workforce and is the only school of nursing with a footprint across most of the southern half of NSW.

The school delivers bachelor and advanced nursing degrees from five sites across predominately regional and rural NSW – with campuses at Wollongong, Shoalhaven, southern Sydney, Batemans Bay and Bega.

The School of Nursing is part of a NSW-first regional clinical school partnership to advance clinical research and education in rural areas.



## Graduate School of Medicine

Our Graduate School of Medicine was established in 2007 with a core focus on training doctors with the capacity and desire to work in regional, rural and remote communities. We prioritise students with a rural background, which results in almost 70 per cent of our students at the school having a rural origin, compared to the national average of around 25 per cent.

In fact, UOW attracts a higher proportion of rural applicants than any other NSW medical school.

The Graduate School of Medicine is the only medical school in Australia to give all students the opportunity to undertake a 12-month longitudinal clinical placement in a regional or rural setting. Placements are offered in one of 11 regional and rural communities across NSW, stretching from the Northern Rivers to the South Coast, and as far west as Broken Hill, with some even working with the Royal Flying Doctor Service.

Scholarships and incentives are provided to support students to undertake rural clinical placements and to support Indigenous students progress through the course. The University also offers an alternative entry pathway for Indigenous applicants and three Commonwealth-supported places dedicated annually to Indigenous students.

### PROGRAM SUCCESS:

- 464 students (six cohorts) have graduated from this program, producing quality doctors and addressing the shortage of healthcare professionals in rural and regional Australia.
- An average of 61 per cent of our six cohorts have elected to undertake an internship in a rural or regional area, with the intention of completing further training or clinical practice in a rural or regional area.
- 75% of graduating students would like to practice outside urban metropolitan regions upon completion of their training.
- UOW has contributed directly or through collaborative partnerships to more than \$8 million in rural and regional infrastructure to support clinical education and training. This includes a direct contribution of approximately \$3.5 million.



## Key facts

**\$3.5M**

direct contribution to rural and regional infrastructure to support clinical education and training

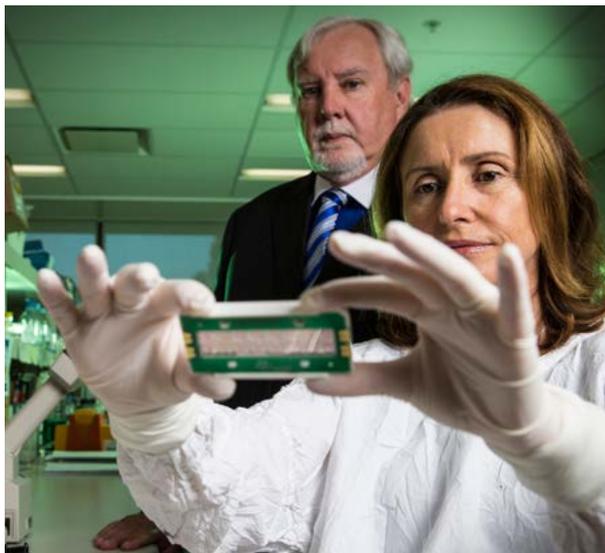
**600**

students have graduated through our nursing degrees

## Northfields Clinic

Northfields Clinic was founded in 1981 as the third oldest clinic of its kind in Australia, and is widely regarded by as one of the best psychology training clinics in Australia. The clinic has provided low-cost, high quality psychological treatment and assessment services to the community. The clinic treats children and adults for a range of issues including anxiety and phobias, depression, drug and alcohol problems, obsessive compulsive disorder, stress management, sleeping disorders, assertiveness, self-esteem building, anger management, learning disabilities and child behavioural problems.

Over 400 clinical psychology trainees have graduated from the clinic over the past 35 years as clinical psychologists with masters, doctorate and PhD degrees, and are now serving the mental health needs of the community. Over 120 Masters of Professional Psychology students have also undertaken work at the clinic during their training. Approximately 12,000 individual clients have benefited from the service offered at Northfields, and as such the clinic has touched the lives of many more - including families and friends. The clinic has also facilitated many successful clinical research projects in partnership with the Illawarra Institute for Mental Health. It has the backing of highly qualified national and internationally-recognised clinical academics.



## Dementia

The South Coast town of Kiama is the pilot site for a bold new project aimed at creating dementia-friendly communities throughout Australia.

The wider research project, led by UOW's Dr Lyn Phillipson, aims to change the way people with dementia interact with their social and physical environments and boost their quality of life.

Part of UOW's Global Challenges, Dementia-Friendly Communities is in direct response to the growing number of Australians who are expected to be diagnosed with dementia in the coming decades, a figure set to rise from the current 32,000 to approximately one million in 2050.

The multidisciplinary initiative has also seen the development of Our Place – an interactive website that enables users to map dementia-friendly places in their area.

The site encourages people with dementia and their supporters to share local knowledge about places in their neighbourhood that are dementia-friendly and also allows users to share ideas about places that could be improved.

Lead researcher Dr Chris Brennan-Horley says the maps currently focus on Kiama and Darwin, however he hoped to expand it to other communities.

Our Place is funded by the Alzheimer's Australia Dementia Research Foundation and is part of the Dementia Friendly Kiama and Dementia Friendly Darwin initiatives.

## Cancer trial

In a first for the Illawarra, a Phase 1 clinical trial to determine the safety and efficacy of a new drug to treat metastatic colorectal cancer started in 2015.

The Wollongong trial is the culmination of a long-term research project led by IHMRI-affiliated researchers to develop a drug that colorectal cancer patients could tolerate over repeated treatment cycles.

After performing well in pre-clinical testing, Deflexifol was licensed to drug development company FivePhusion, which obtained the necessary approvals to conduct a human trial at the Southern Medical Day Care Centre and Liverpool Hospital.



## IHMRI

The Illawarra Health and Medical Research Institute (IHMRI) is a joint initiative between UOW and the Illawarra Shoalhaven Local Health District dedicated to excellence and innovation in health and medical research that will lead to better health services and a healthier local community.

IHMRI engages with a large network of organisations and individuals with an interest in health and medical research in the Illawarra and Shoalhaven region. It provides an independent medical research environment to bring academics and clinicians together to solve broadly relevant health problems.

In 2014-2015 IHMRI-affiliated researchers were actively involved in 102 externally-funded projects, including 31 projects funded by the National Health and Medical Research Council and 48 projects supported by other Australian competitive grants.

More than 100 scientists are based at IHMRI's \$30 million facility at UOW's main campus, with more than 290 researchers, students and research staff utilising the facility during 2015. The research program at IHMRI consists of three broad-based themes that target health and medical issues prevalent in the Illawarra region such as chronic lifestyle-related conditions, cancer, mental health and the 'diseases of ageing' including dementia.

Through the Illawarra Health Insights research cluster, IHMRI fosters innovative observational studies and community health interventions that not only seek to improve the health of local residents, but influence national conversations on the best way to prevent disease, promote good health and prolong life.

At the core of the Illawarra Health Insights cluster are two long-term strategic studies – HealthTrack and Illawarra Born. The HealthTrack Illawarra Shoalhaven Healthy Lifestyle study, a commitment to fostering better health in the region, is an important collaboration between IHMRI, UOW and the ISLHD. These studies also played an important role in building engagement between the local community and IHMRI, with more than 360 residents recruited for the HealthTrack study.

## Mind the GaP

A joint initiative by the University of Wollongong and Shoalhaven Council is tackling the issue of mental health and wellbeing in the Shoalhaven area by establishing an innovative mental health care facility providing patient-centred, holistic care.

The new purpose-built \$2.5 million Mind the GaP facility, to be located at UOW's Shoalhaven Campus in Nowra, will address the high rate of mental health needs in the Shoalhaven community, particularly among younger people, and will focus on improving the prevention, early recognition and treatment of mental health issues, including suicide prevention.

Construction is due to start mid-2016 and the facility will bring together healthcare professionals, researchers and frontline support services, such as Lifeline, to create an integrated mental health and wellbeing precinct.

The initiative, which is jointly funded by the Commonwealth Government's National Stronger Regions Fund and the University of Wollongong, will be led by Shoalhaven City Council and the University of Wollongong, and delivered in partnership with Lifeline South Coast, Lifeline Australia Research Foundation, Coordinare, Nowra Medicare Local, the Illawarra ad Shoalhaven Local Health District, Noah's Shoalhaven, and the Illawarra Health and Medical Research Institute (IHMRI).

The facility will provide therapeutic spaces for treatment (such as clinical psychology services) as well as a home for community outreach programs such as suicide prevention strategies and whole-of-school-based bullying programs.





## Sport wellbeing

Sports psychologist Dr Stewart Vella, from the Early Start Research Institute, is working with Illawarra sporting clubs, peak sports bodies and mental health organisations to investigate how involvement in youth sports promotes wellbeing and prevents mental health problems.

Dr Vella has found that children who drop out of organised sports have a far greater risk of mental health problems and is developing a grass-roots approach to providing sports clubs with the tools they need to support young members grappling with depression and suicidal thoughts.

This important community-oriented research program, funded by the Movember Foundation and UOW Global Challenges, has the potential to change lives and help arrest the alarming rate of mental health problems and suicide among young Australian men.

## Mental camp

An award-winning Australian-first Recovery Camp has been developed by the University, aimed at enhancing the lives of people with mental illness while educating future health professionals.

The annual five-day therapeutic adventure recreation camp pairs people with a lived experience of serious and enduring mental illness with nursing, psychology, dietetics and exercise physiology students from the University.

The Recovery Camp develops essential life skills not only in training to become a health practitioner but to widen a student's views and perspectives towards mental health in general.

## Indigenous health

The University is committed to improving the health of Australia's Indigenous population and to training the next generation of Indigenous health professionals.

For more than 10 years, UOW has offered the Bachelor of Masters of Health Services (Indigenous Health) and has now added a Graduate Certificate in Indigenous Trauma Recovery. It is the first program of its kind in Australia and provides health professionals and others working within the social services, education and justice sectors with the knowledge and skills to effectively address multiple layers of trauma across Indigenous communities.

## Early Start

More than 135 researchers and students at the Early Start Research Institute are engaged in interdisciplinary, evidence-based research across the spectrum of children's educational, physical, cognitive, social and emotional development.

With a focus on tackling the cycle of disadvantage that families in regional rural and remote areas face, our research is making a difference to the lives of children in Australian and around the world.

Our projects have attracted more than \$7 million in research funding over the past three years with about 50 per cent of ESRI research involving staff and children in our engagement centres.

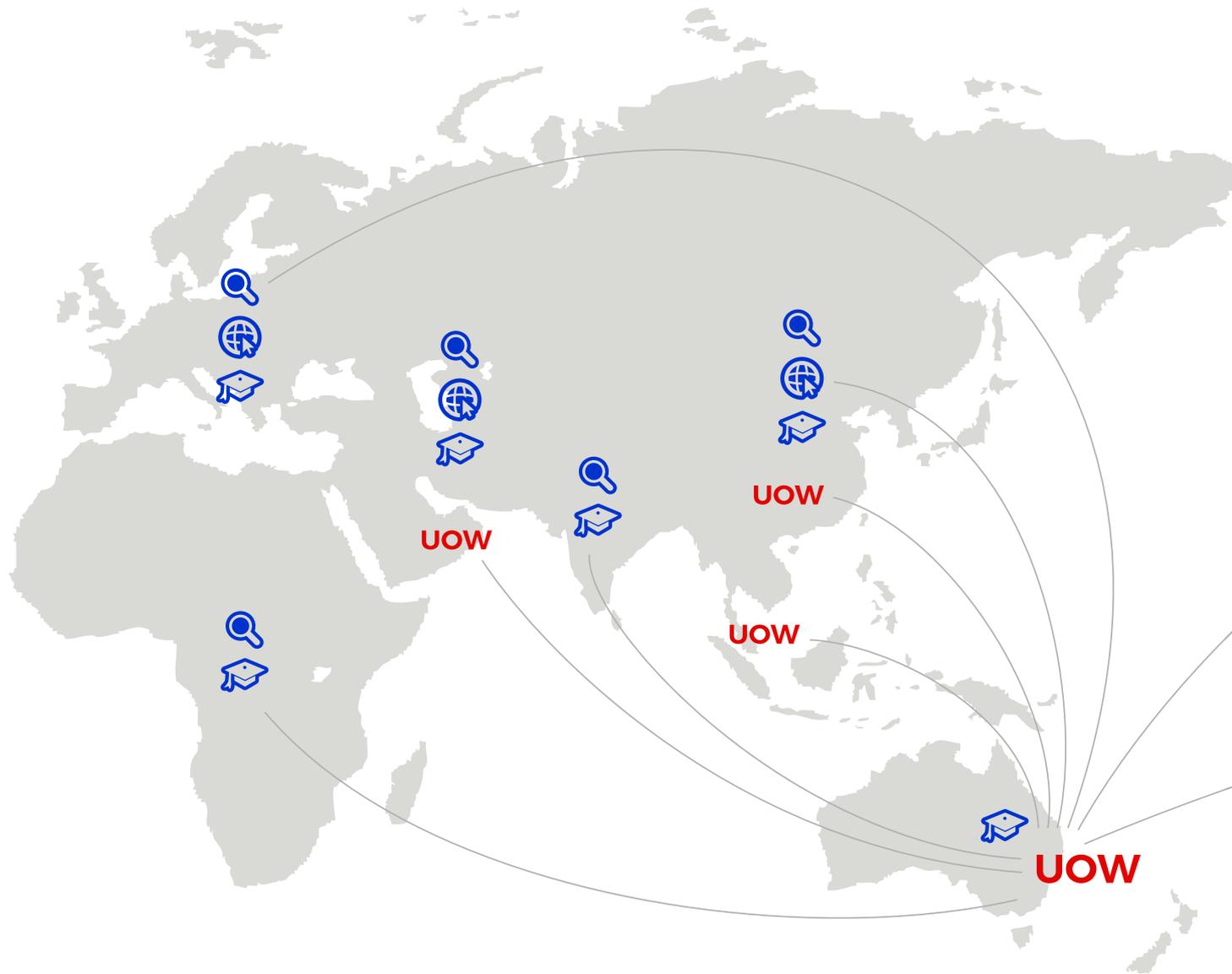
Key research includes a project funded by the National Health and Medical Research Council of Australia to increase physical activity among preschool children from disadvantaged communities.

# Globally connected

University of Wollongong

Economic Impact 2016

32



## Key Facts

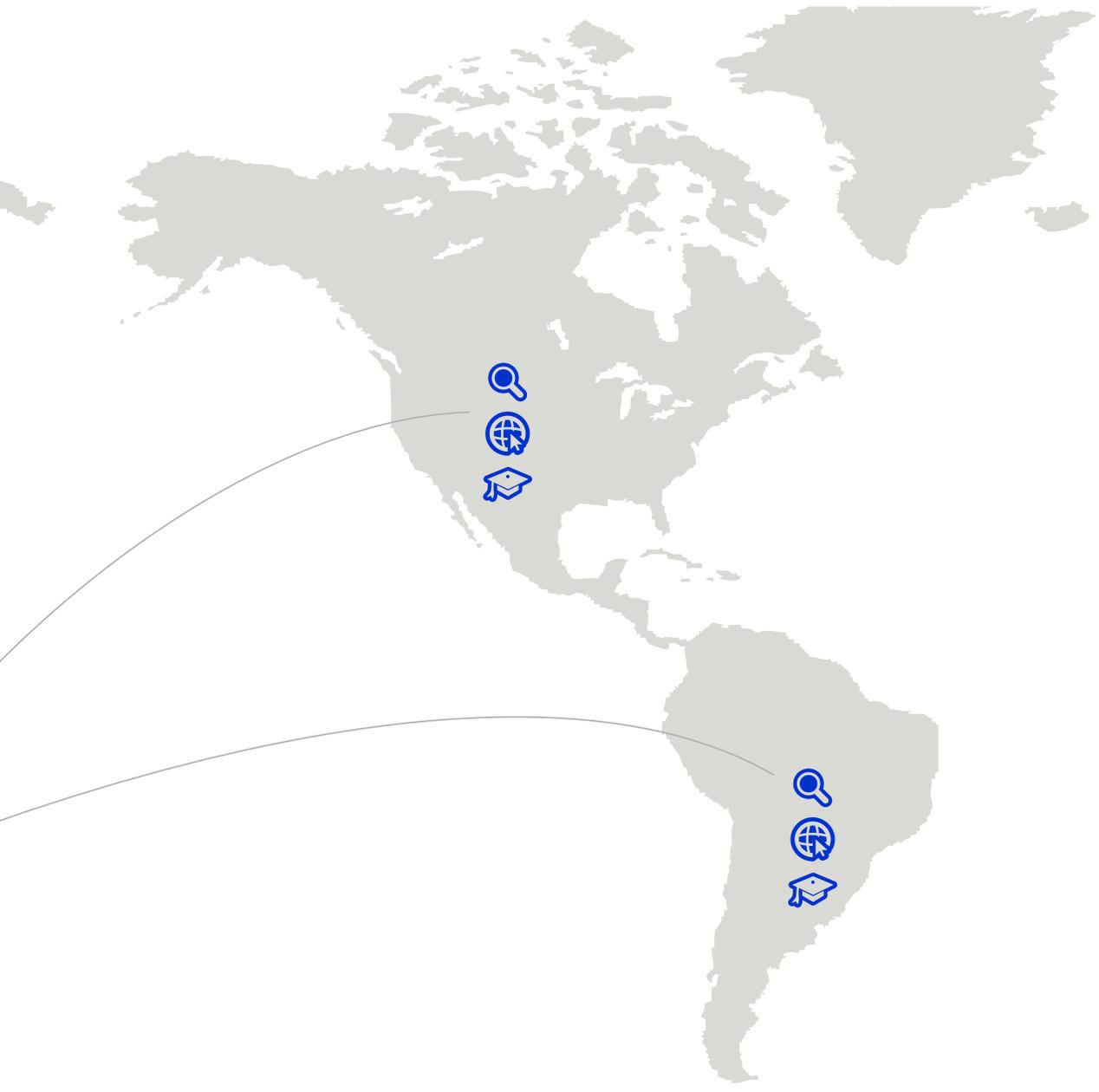
Our alumni live in  
**145**  
countries

Academic/research  
collaborations with  
**272**  
institutions

Global links with  
**218**  
institutions

**3,537**  
students have studied  
overseas

**11,010**  
students from other  
unis. studied at UOW



<b>UOW</b>	Locations
	Research & academic connections
	Alumni
	Exchange destinations

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*The University of Wollongong  
will anticipate the nature of  
new and emergent industries  
and future jobs and adapt our  
portfolio of offerings and research  
capacity to best contribute to the  
needs of our communities*

**STRATEGIC PLAN, 2016-2020**



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The full report can be downloaded at:  
[impact.uow.edu.au](http://impact.uow.edu.au)

**NOTICE:**

UOW engaged Cadence Economics to undertake an independent assessment of the economic contribution of the University.