

**Annual
Report**



Murdoch
UNIVERSITY

20

19



2019

Artist credit: Brian McKay – Geometer (detail).

Murdoch University is committed to conducting its education, research and corporate activities in a sustainable manner. In keeping with this commitment, the University has adapted its reporting practices to produce limited hard copies of the annual report, encouraging stakeholders, customers, partners, students, employees and donors to access the document online.

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Disclaimer

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The campus is our gallery

The 2019 Annual Report celebrates the diversity and vibrancy of the Murdoch University Art Collection, founded in 1974 through an act of generosity. To signify Murdoch University's foundation, a series of artworks were gifted by generous individuals - the most notable being 11 works received between 1974-75 from prominent collector and philanthropist Dr Harold Schenberg. Enthused by this patronage, the University's Senate formed an Art Acquisitions Committee to establish an art collection in 1975. Since this time, a substantial and reputable collection has gradually developed and now consists of over 2000 fine examples of contemporary Australian art. Rather than housed in a stand-alone art museum, the University's art collection can be found woven into the campus landscape and architecture where students, staff and visitors enjoy and interact with it daily. A list of the artworks that appear throughout this publication can be found on pages 142 and 143.

Cover artist credit: Patju Presley – Kumpukura (detail).

Statement of Compliance

Hon Sue Ellery MLC
Minister for Education and Training
Dumas House
2 Havelock Street
WEST PERTH WA 6005

13 March 2020

Dear Minister for Education and Training,

In accordance with Section 63 of the *Financial Management Act 2006*, we hereby submit for your information and presentation to Parliament the Annual Report of Murdoch University for the financial year ended 31 December 2019.

The Annual Report has been prepared in accordance with the provisions of the *Financial Management Act 2006* and is made in accordance with a resolution of the University's Senate.

Yours sincerely



Gary Smith
Chancellor



Eeva Leinonen
Vice Chancellor

The background of the page is a vibrant abstract artwork. It features a dark blue, textured background with several large, overlapping brushstrokes in shades of pink, purple, and light blue. Radiating from the top and bottom corners are clusters of thin, light-colored lines, each ending in a small, rounded tip, resembling stylized sun rays or fireworks. The overall composition is dynamic and colorful.

Integrating contemporary Australian art into the everyday experience of campus life is a proud tradition at Murdoch University. Art has the potential to bridge our worlds, harness the wisdom of our different views and engage our imagination to explore new ways of thinking.

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Chancellor's Foreword



“ Murdoch University belongs to the entire community, and we are all invested in its continued prosperity and growth. ”

...

Gary Smith

Artist credit: Henry Wambini –Doweloo - Dalarji Junction (Cross Roads) (detail).

There is a saying that the greatest service to society is to plant a tree under whose shade you know you will never sit.

I am extraordinarily proud to accept the appointment of Chancellor at a time when Murdoch University is reaching its early maturity, having benefited from those who planted the first seeds of this fine institution almost half a century ago.

Murdoch University belongs to the entire community, and we are all invested in its continued prosperity and growth. I want to spend some time in this foreword to share how impressed I am as I have quickly observed its many qualities and capabilities.

Since commencing in my role in August 2019, I have admired the scope and ambition of the University's research, teaching and learning.

During my Investiture in November, I remarked that my strongest early impression of Murdoch is of an institution with remarkable energy and commitment to establishing itself as a global contributor to society, with no stone left unturned in its pursuit of better education and outstanding research, for the benefit of all.

Murdoch is exceptional in many areas – from its wide recognition for providing “first in family” degree opportunity, its investment in real-world learning that drives early pragmatic and authentic workplace experience; its delivery of elevated student experience and wellbeing; to its leadership in driving research and development in areas that represent the very essence of life – food, health and the environment.

In my short tenure, I have also been delighted at the investment made in Murdoch's future growth and strategic aspiration, including the launch of the Australian National Phenome Centre, the clear signalling of our CBD campus intent, and the planning for our expansion of the Murdoch Knowledge and Health Precinct

and New Academic Building, just to mention a few highlights. Murdoch University is certainly “on the move”.

This program of major infrastructure works – both completed and underway – will transform the University and place it at the heart of a new southern health, research and commercial innovation hub anticipated to become one of the nation's most employment-intensive precincts in the years ahead.

My most pleasurable experience to-date, however, has been to attend my first series of graduation ceremonies as Chancellor in Perth, Singapore and Dubai. I have been thrilled to shake the hands of more than 1400 proud, new Murdoch graduates, ready to embark on their careers as Murdoch alumnus who will undoubtedly make a positive contribution to the world.

From a personal perspective, and as Co-Chair of Reconciliation WA and a Director of the WA Aboriginal Leadership Institute, I have a deep commitment to Reconciliation for both non-Aboriginal and Aboriginal Western Australians.

I have committed to build on the work Murdoch University has done for many decades in supporting the advancement of Aboriginal Peoples by working towards:

- Our students emerging into the world beyond their studies with a strong awareness and embrace of the importance of reconciliation between Aboriginal and Non-Aboriginal people; and
- Murdoch continuing to grow a strong environment of cultural safety in which Aboriginal and Torres Strait Islander people can engage whole-heartedly as they achieve a quality education.

We all stand on the shoulders of those who have walked before us, and I take this opportunity to thank my predecessor Mr David Flanagan, who made a superb contribution to the University over his two terms as Chancellor.

Through Mr Flanagan's guidance, and the Vice Chancellor's leadership, Murdoch is in an excellent position and on-track to meet its key performance targets as outlined in the University's *Strategic Plan and Future Horizon 2017-2027*.

Mr Flanagan's leadership has also improved University governance and supported diversification of our revenue streams, boosting overall financial performance. As a result, Murdoch is entering a phase of its development that allows both aspiration and affordability to co-exist, allowing us to pursue our strategic agenda for improved infrastructure, business engagement and innovative learning environments.

I will do everything I can to protect his fine legacy and grow and support the University over the years ahead.

I thank Vice Chancellor Professor Eeva Leinonen and her executive team for their support and encouragement since my appointment.

In my position as Chair of the Senate, I pledge to work proactively with the Vice Chancellor and all Senate members to ensure the University continues to be well managed.

Finally, I want to thank all Murdoch staff who I've had the good fortune to meet thus far. You have made me feel welcomed and part of a caring community doing great work.

On your behalf, I will be Murdoch University's greatest advocate – locally, nationally and internationally – championing the extraordinary work being done here and playing my part in nurturing the growth of this fine institution.



Gary Smith
Chancellor

Vice
Chancellor's
Report



“ Two years into our
Strategic Plan,
Murdoch is positioned
to offer solutions to
some of the world’s
biggest challenges... ”

...

Professor Eeva Leinonen

Artist credit: Stuart Green –End-Start-End (detail).

2019

will stand as a transformational year in the history of Murdoch University. We have delivered or embarked upon a number of major initiatives which will create a powerful platform for future success and growth.

By the time of our 50th anniversary in 2024, we expect Murdoch to be a larger and stronger institution, with substantial new infrastructure built and operational across the University campus, and an anchor point for a major new research and innovation hub in southern metropolitan Perth.

2019 has been another year of reward, success and achievement as we make further strides toward achieving the aims and goals we set ourselves in our Strategic Plan.

Our successes have not come easily: the result of hard work, commitment and dedication by people across the University community, as well as careful planning and professional delivery.

We have achieved our successes while also being true to our guiding values of integrity, respect and diversity; excellence and future focus.

There have been times throughout the year when we have encountered difficulties, several of which have been well-publicised and commented on. These types of challenges are expected in an organisation that has set itself such ambitious goals for the future. We will continue to handle these matters appropriately, and will not be distracted from the main task at hand.

Two years into our *Strategic Plan and Future Horizon 2017-2027*, Murdoch is positioned to offer solutions to some of the world's biggest challenges in areas vital to the human experience, such as food security and production, health and disease prevention, and balancing the needs of business and the environment for sustainable economic growth.

Our ambitions must also be underpinned by sound financial performance and I am pleased to say the University has recorded a surplus of \$24.3 million – allowing us to explore new possibilities and expand our reach.

This 2019 financial surplus continues to build on the University's strategic pillar objective of "financial strength".

Another major contributor to our success is the establishment of a flexible and responsive University structure that supports our people, sets high standards, and is transparent, fair and consistent.

During 2019, we made steady progress towards the implementation of the Academic Career Framework. The framework sets clear standards for academic performance and conduct, and rewards and recognises staff who advance and support Murdoch's values and goals.

A new two-college model was also embedded across the University to lead our teaching, learning and research programs and provide more flexibility for students who wish to study across different disciplines.

The two colleges are the College of Arts, Business, Law and Social Sciences and the College of Science, Health, Engineering and Education.

We remain resolutely focused on our two core goals: to educate free thinkers who thrive in society and are sought after by employers; and to provide transformative solutions through outstanding translational research and innovative practice.

To achieve our goals, Murdoch needs to attract leaders who share our passion. I am delighted that in 2019, we formally welcomed one such person with the Investiture of our new Chancellor and Chair of the University Senate, Mr Gary Smith.

He brings extensive national and global networks and a strategic focus to help Murdoch University deliver its bold research, infrastructure and education agenda.

Mr Smith replaced Mr David Flanagan, who stepped down from the role after two successful terms.

Mr Flanagan was a bold, courageous and decisive Chancellor and exactly the kind of leader the University required at a crucial point in its history.

“We remain resolutely focused on our two core goals: to educate free thinkers who thrive in society and are sought-after by employers; and to provide transformative solutions through outstanding translational research and innovative practice.”

His strong leadership ensured important steps were taken towards implementation of our Strategic Plan, and on behalf of Murdoch University, I thank him for his lasting contribution and legacy.

I also take this opportunity to thank the Banksia Association for its ongoing support of the University.

I had the pleasure of hosting members at RAC Arena in November to share information on the University's major achievements and activities in 2019.

The Banksia Association supports the University in many ways, including its Honours Scholarship Program for talented students who wish to continue their studies.

TEACHING AND LEARNING

An increasing number of students chose Murdoch for their education in 2019.

Our domestic market share of undergraduate high school leavers increased by 2.2% in a generally flat market for the Western Australian university sector, and we also saw continued gains in school leavers selecting Murdoch as their first preference.

Murdoch focused on sustainable growth in international student numbers, with 11.4% growth in 2019. Government data released in 2019 showed we have the third lowest international onshore cohort in the country, which presents opportunities for growth in the years ahead.

According to the International Student Barometer – the largest annual study of international student satisfaction in the world – our satisfaction remains high, recording 90% overall satisfaction with international student experience; 92% overall satisfaction with the living experience; and 91% overall satisfaction with student support services.

Our commitment to providing an outstanding educational experience for every student continues, with the independent Good Universities Guide awarding Murdoch five-star rankings across the areas of overall experience, student support, teaching quality and student to staff ratios – placing us in the top 20% of all universities Australia-wide. In the previous Good Universities Guide, the University achieved two five-star rankings.

Overall student experience for undergraduate students improved to 6th across all Australian public universities, a rise of four places on the previous year.

The University was also ranked 9th for teaching quality and 7th across all Australian public universities for student support. This compares to 9th and 6th respectively on the previous year.

In the educational experience category, our Veterinary Science course ranked number one in Australia for skills development.

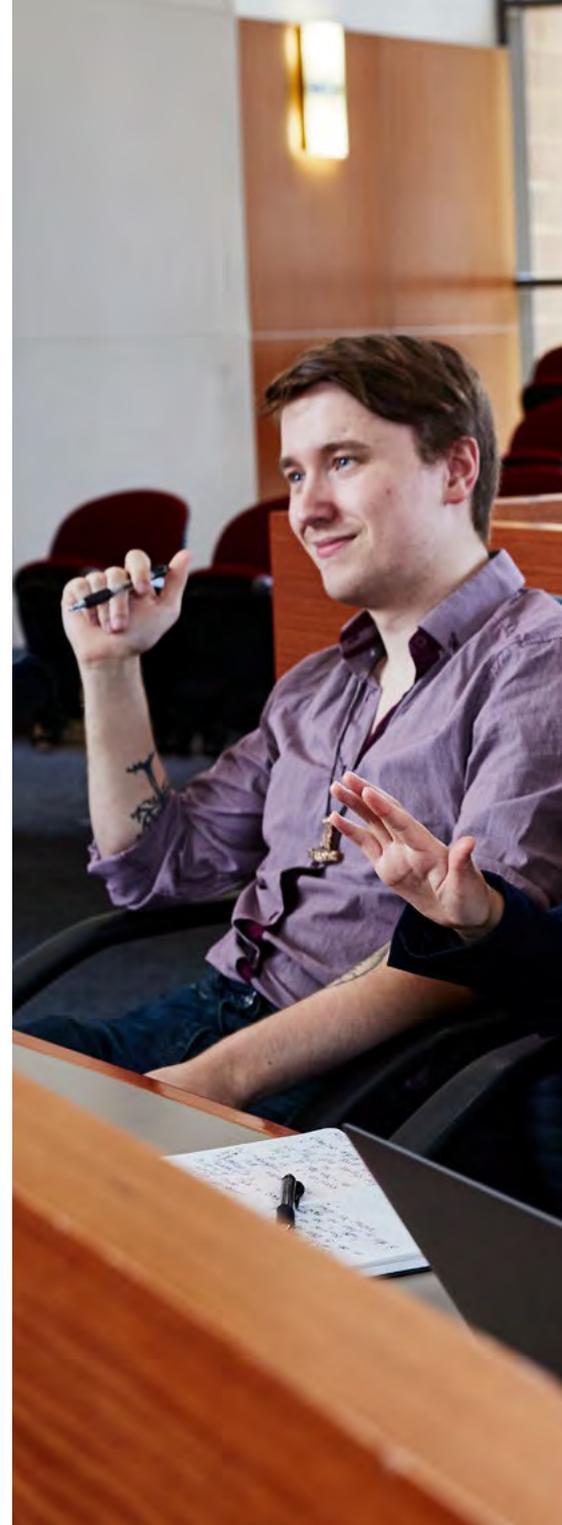
These results do not happen by chance. They reflect constant improvement and dedication to excellence. The tertiary education environment is a challenging one and requires us to work tirelessly to ensure high standards, to support our students to succeed and continue to improve.

“Our commitment to providing an outstanding educational experience for every student continues.”

The University also continues to focus on the health and wellbeing of all our students and offers a wide range of support services.

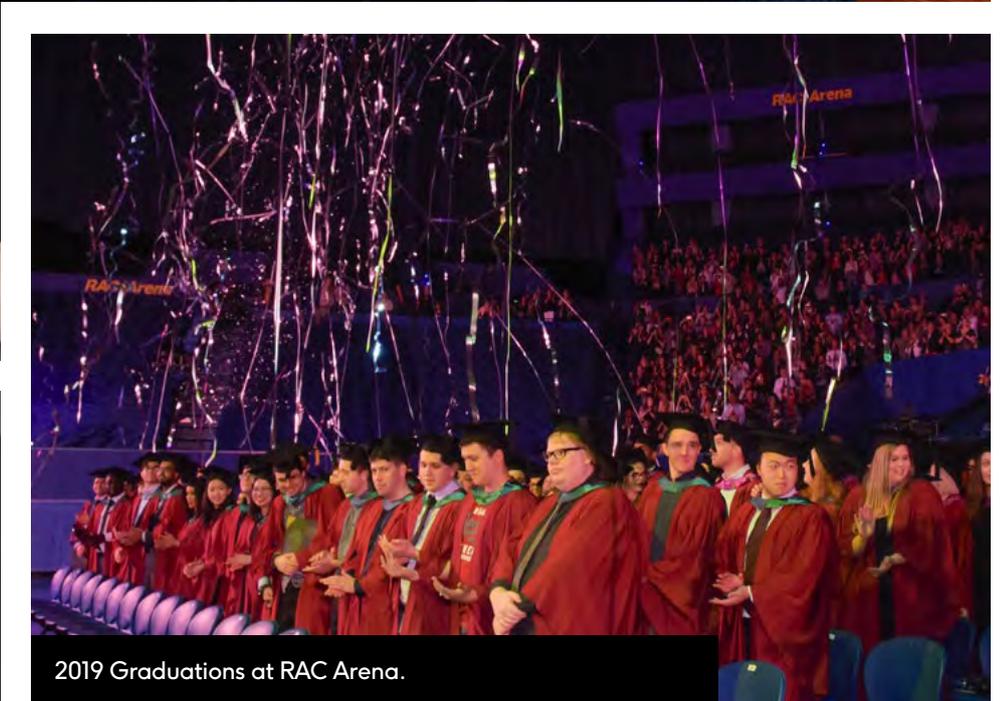
We work tirelessly to ensure high standards, actively supporting our students to succeed and to continue to improve. Murdoch's ongoing relationship with our regulator, the Tertiary Education Quality and Standards Agency, ensures we have the best practices to support our students, to uphold academic standards and continuously improve our processes and practices.

In 2019, we added to these with the launch of myMurdoch Advice at our Perth and Mandurah campuses. This new service was very well-received, with more than 11,400 face-to-face and email contacts. Analysis showed myMurdoch Advice counsellors were able to successfully resolve issues during their first contact with students more than 90% of the time.



Murdoch also empowers students to lead change that supports health and wellbeing and informs teaching practice. Fifteen students worked on 11 diverse Students as Change Agents projects in 2019 – from support for students with young children to promotion of positive mental health among our Dubai cohort.

In 2019, we welcomed an additional 4,637 graduates into the 80,000 Murdoch University Alumni community at graduation ceremonies at RAC Arena in Perth, Singapore and Dubai.



2019 Graduations at RAC Arena.



Chancellor Gary Smith.



WORLD CLASS RESEARCH

Murdoch University's research is focused around three interdisciplinary research institutes – the Food Futures Institute; Harry Butler Institute; and Health Futures Institute.

“The opening of the ANPC positions Western Australia as a global leader in precision medicine.”

All work together to provide innovative solutions to some of the world's greatest challenges: climate change, food and water security, water quality, sustainable farming and land development, population growth, infectious and rare diseases, the health of oceans and waterways and much more. They underpin our “real world” research focus delivering important outcomes for people, animals, the environment and economy.

Our approach is guided by the *Research and Innovation Plan 2018-2023*, which emphasises translational research that delivers practical, impactful and sustainable solutions, further strengthens our strong community and industry-based partnerships, and expands national and international collaborations.

The University's evolving Murdoch Knowledge and Health Precinct is designed to showcase the three interdisciplinary institutes and their associated research centres.

The opening of the Australian National Phenome Centre (ANPC) in October after five years of intensive planning has positioned Western Australia as a global leader in precision medicine.

The ANPC is the most advanced in a world-wide network of phenome centres and represents a \$30 million investment, with mass spectrometers and other advanced scientific research equipment costing \$23 million and construction and fit-out costing \$7 million.

Murdoch University, the Commonwealth Government, multiple university and research institute partners, and the business sector helped fund the costs associated with the ANPC.

The new Harry Butler Environmental Education Centre is another vital part of the Murdoch Knowledge and Health Precinct. The centre will break new ground in environmental education, bringing together researchers, students, private industry and the wider community to learn more and explore the benefits that economic development can deliver to protect the natural environment.

In 2019, the quality of our research was also independently assessed by the Australian Research Council's Excellence in Research Australia (ERA) evaluations, with our programs in health, agriculture, environmental science and management, zoology, agricultural biotechnology, clinical sciences and medical microbiology all achieving the highest possible ratings.

GLOBAL OUTLOOK

Murdoch is a globally-focused university and we actively invest in our overseas operations, as well as providing an outstanding educational experience to our international onshore students.

We are the first Australian University to offer degree courses in Myanmar, which is generating positive engagement from local students in the new market and we see tremendous opportunity throughout Asia and the Indo-Pacific regions to be a creative force for good.

We are actively seeking diversification of our onshore student population and during 2019, we saw more students from Pakistan, South America and Africa choosing a Murdoch education.

At Murdoch Dubai, we commenced a new partnership with highly-regarded education provider Navitas, offering courses in business, media, communications, IT, psychology and education.

We are also progressing well in our plans to move to a new campus in 2020, which will be double in size and feature additional facilities and amenities.

At Murdoch Singapore, we now rank as the largest international university with more than 5,500 students and more than 17,000 Alumni.

Continuing our global focus, Murdoch hosted a reception that brought together experts and thought leaders to work on pressing problems and issues of public concern in Africa. We are strengthening our partnerships with Africa through the Third Murdoch Commission to focus on themes identified by the Africa Progress Panel (APP).

The APP has set a global agenda for equitable and sustainable development through managing extractive industries more sustainably; harnessing the "blue" economy – our oceans; and promoting sustainable agriculture and food production. The University is exploring the role of youth and women in delivering that agenda.



The Third Murdoch Commission is on track to deliver and launch during Africa Week in Perth in September, 2020.

In 2019, we welcomed many international visitors to campus, including a delegation from the Agricultural Research Council of South Africa who, in partnership with Murdoch researchers, have identified a new legume for sheep that is capable of surviving Western Australia's harsh summers and releasing previously non-productive land for grazing. The University signed a commercial agreement for the new cultivar with the South African Government in September.

Senior members of China's Qingdao Agricultural University, PhD students and Fellows, also visited Murdoch. Our two universities are working closely together on a number of projects.

I also had the pleasure of visiting China, where I met with several key teaching and research partners.

While visiting Qingdao Agricultural University, I signed a memorandum of understanding to expand the partnership between us and I was pleased to launch a new joint research institute into agricultural and environmental health.

At the Shenyang Institute, I discussed opportunities to further deepen our long relationship and met students, including those visiting Murdoch for an engineering study tour.



New Academic Building concept.

THE PHYSICAL AND DIGITAL ENVIRONMENT

Investing in our campus facilities was a key focus in 2019. In August, construction began on a new \$5 million South Metropolitan Crop Research Hub, including specialised glasshouses and research-focused netted field plots.

This major grain research infrastructure project will help boost crop productivity and reduce the impact of crop disease, while significantly improving the productivity and efficiency of crop research in Western Australia.

The project involves a collaboration between Murdoch and Curtin universities, and the State and Federal governments to create a state-of-the-art facility.

The Grains Research and Development Corporation (GRDC) provided Murdoch University with a \$3 million Infrastructure Grant to establish the hub under a collaboration between Murdoch, Curtin University and the Department of Primary Industries and Regional Development (DPIRD).

During 2019, the University announced the purchase of State Government land next to Fiona Stanley Hospital, St. John of God Hospital and Murdoch Train Station for the development of the Murdoch University Gateway Building.

This development will provide the University with a facility directly linked to hospitals and accommodate a range of Murdoch's health-focused learning, teaching and research facilities. In addition, it will provide an opportunity for industry and government co-location and partnerships.

At the same time, Murdoch University entered into a research and development agreement with international leader in IT and networking Cisco to create a pilot SMART cities program within the campus and across the broader Murdoch precinct. The project is connecting Murdoch University's academic and research community with Cisco's global research and development network to create an exemplar technology-rich campus environment promoting connectivity, safety, amenity and innovative transport outcomes.

Planning for construction of a New Academic Building (NAB) on our South Street campus was well advanced in 2019, with construction expected to start in mid-2020 and a completion date of 2022. The NAB will substantially increase Murdoch's teaching capacity and position us for future growth and new ways of learning.



The building will be constructed from timber and on completion will be one of the largest timber framed educational buildings in Australia. Timber will feature throughout the building including use in fit-out components and for specialised furniture.

In 2019, Murdoch launched a new, vibrant teaching and events space in the Perth CBD—a significant development that will help strengthen our relationships with key business, industry, government and community stakeholders in the city.

Soon after opening this space, the University advertised for expressions of interest to develop a new vertical campus in the CBD to enhance Murdoch's appeal to domestic and international students. This will be a key project in coming years.

In November, we called for expressions of interest to develop a major on-campus District Energy Project. The project will provide sustainable campus-wide energy production, with solar photovoltaic panels installed across the roof space of buildings at our South Street campus and construction of a 1000-bay solar car park—generating 5.7 MW.

In 2019, the Federal Government announced \$25 million in funding for the establishment of the Harry Butler Environmental Education Centre—an innovative facility with a focus on the achievement of sustainable environmental outcomes through economic development.

The new centre will sit within the Harry Butler Institute and is an important component of Murdoch's Knowledge and Health Precinct.



District Energy Project.



Distinguished Alumni Tim Hammond, Adam Ferrier, Vice Chancellor Eeva Leinonen, Gail McGowan, Michael Keenan and Basil Zempilas.

OUR PEOPLE

In 2019, we also had many occasions to celebrate staff achievement with major recognition in teaching and learning.

Accolades included Professor Chengdao Li winning the 2019 Australian Farmer of the Year Award for Excellence in Agricultural Research; Dr Paola Magni winning the FameLab Australian final and placing fourth in the global competition; Professor Jeremy Nicholson's naming in the Highly Cited Researchers 2019 list by the Web of Science Group; Professor Rhonda Marriott's induction into the WA Women's Hall of Fame; and Professor Elaine Holmes' winning at the Women in Tech [+] WA Awards, along with nominations for Dr Paola Magni, Dr Sam Lodge and Julie Whitlock.

SimLab, the virtual classroom technology developed at Murdoch to train young teachers, won the Educational Technology category at the prestigious AFR Higher Education Awards while our nursing e-portfolio platform won at the 2018 Australian Awards for University Teaching.

We also celebrated our Distinguished Alumni, Adam Ferrier, Michael Keenan, Tim Hammond, Gail McGowan, and Basil Zempilas recognised for their outstanding contributions to advertising, politics, law, government and the media.

Held for the first time at RAC Arena, with which we share a corporate partnership, the Distinguished Alumni Awards recognise the cream of Murdoch University graduates. We celebrated their extraordinary careers, personal and community achievements and standing as ambassadors for our fine University.

Several Murdoch University advisors and distinguished researchers were honoured in the Queen's Birthday Honours List, including Adjunct Associate Professor Brad Norman, former State Education Minister and member of the Murdoch University Art Board Dr Liz Constable, Adjunct Associate Professor Lenore Layman, Mayor of Kwinana Carol Adams and Vice Chancellor's External Advisory Board member Gail McGowan.



Dr Paola Magni.



Professor Elaine Holmes.

In 2019, the Small Steps of Innovation initiative was expanded with the creation of a new “Innovation Ready” category for projects that have business cases prepared and are ready for implementation. Small Steps of Innovation is an important part of our Strategic Plan and encourages staff to develop innovative ideas that generate improvements across the entire University. Several projects received funding in 2019, including a robotics, science and teamwork program for high school students; a software development project to understand how sand flows effect coastal erosion; and Open Coffee and Learning sessions as a way to meet colleagues and share ideas.

POLICY AND STAKEHOLDER ENGAGEMENT

The Vice Chancellor’s External Advisory Board, comprising business and community leaders from home and abroad, met twice in 2019 and provided invaluable input into major areas of strategic importance for the University, with specific reference to the Knowledge and Health Precinct, CBD campus development and the Third Commission on Africa.

Murdoch continued to engage and collaborate with external stakeholders throughout the year and considerable effort was made to forge stronger relationships with Federal, State and local governments, business, industry and the community.

Our focus is on building reputation externally to ensure all our key stakeholders understand how Murdoch benefits the State and the nation, making an important contribution to issues of global concern, and that the quality of our teaching and learning is providing the expertise needed to deal with these challenges.

We also recognise the need to be agile in a world of constant change and indeed, 2019 was notable for the enormous amount of change within the university sector.

For example, findings from the independent review of Freedom of Speech in Higher Education Providers, initiated by the Federal Government and conducted by the Hon Robert French AC, was released in 2019.

The report recommended adoption by institutions of a proposed Model Code on freedom of speech and academic freedom in higher education, while leaving significant discretion for universities to determine how they wish to implement the Model Code.

As a result, Murdoch has commissioned an independent review of its own policies and procedures to produce a report outlining areas of accord and discrepancy between our approach and the Model Code.

Among a number of other Government-initiated reviews and policy changes, perhaps the most significant was the Wellings’ review of performance-based funding. As a result of the review, from 2020, the performance of universities will be measured across four areas: student success; equity participation; employment outcomes and student experience.

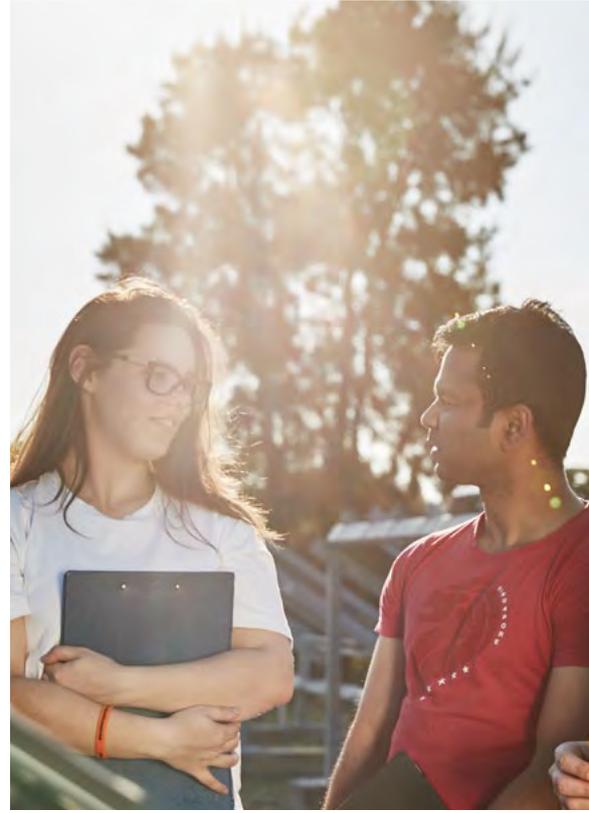
It is a critical time for the tertiary education sector with the Federal Government prioritising graduate outcomes, student employability, improving links between universities with business and industry, and lifting national productivity through skills and education. We believe Murdoch is well-positioned to respond to these changes in the sector.

In November, the Federal Government reinstated Perth’s status as a regional city, providing greater incentives to international students to study in Perth – including eligibility for an additional year in Australia on a post-study work visa. Murdoch worked hard to achieve this outcome and believes it will make Perth a more attractive destination for international students, supporting local universities and driving stronger economic growth.

Engagement with the State Government was also a priority during 2019, with international education one of the key components of its strategy to diversify the WA economy.

University representatives were also involved in trade missions with State and Federal Ministers to a number of countries, including India, China and Israel.

In January, I was delighted to be appointed Chair of Innovative Research Universities – a coalition of seven Australian comprehensive universities committed to inclusive excellence in teaching, learning and research. It has enabled Murdoch to be at the forefront of national discussions on higher education issues.





OUR PRIORITIES

At the heart of all Murdoch University's endeavours lies our purpose – "to be a creative force for current and future generations".

As the sustainability of the world comes under threat from myriad forces, the ability to respond creatively to problems and apply critical thinking to complex challenges are becoming increasingly sought-after.

Universities have always functioned as anchor points within their communities – driving innovation, new ideas and excellence, asking and seeking answers to difficult questions, and working collaboratively with government, industry, business and the community to find solutions to complex problems.

As we look to the future, our role to share and transmit knowledge – both old and new – remains vitally important.

In September 2019, the Senior Executive Group (SEG) began the process of identifying and selecting the University's priority initiatives and areas of strategic focus for 2020.

The initial 10 areas of focus were discussed and further refined by the University Leadership Group in 2019 and shared with staff at the December Town Hall.

Four new priorities were identified for 2020 which are:

- Service Excellence Framework
- Strategic workforce planning
- The built environment
- Global institute

The remaining six priorities are a continuation of initiatives that began in 2019:

- TEQSA reaccreditation
- Growth and diversification of student load
- Strategic course portfolio
- Student outcomes
- Business, industry, TAFE and government engagement
- International outreach and engagement.

In 2019, planning commenced for a major program to celebrate Murdoch University's 50th anniversary, with activations and engagement to occur over 50 weeks of celebration from September 17, 2024.

This is a special date in Murdoch's history, being 50 years to the day since its inauguration and 150 years since the birth of Sir Walter Murdoch.

The program will include an inspiring series of events and celebrations spanning a number of key milestones in the University's history; supported by activations, engagement and fundraising activities to celebrate the achievements of the past and provide a clear pathway towards future success.

Finally, I acknowledge the commitment of our extraordinary academic and professional services staff – without whom none of our achievements in research, teaching and engagement are possible, as well as the dedication of our students. I extend my sincere thanks to them all.

I also thank the University Senate, its sub-committees and the Academic Council for their governance oversight, guidance and support in the delivery of our ambitious plans underpinning the *Strategic Plan and Future Horizon 2017-2027*.

Professor Eeva Leinonen
Vice Chancellor

2019 at a glance



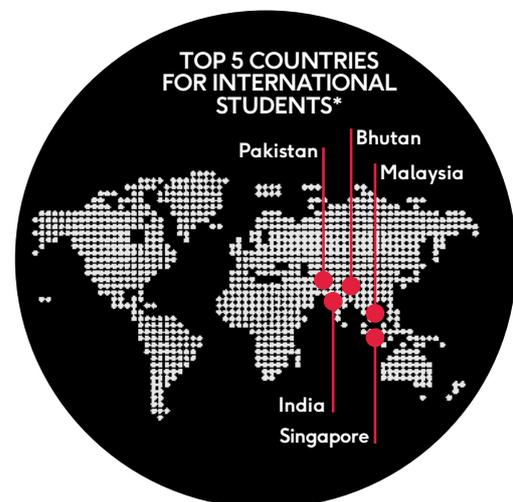
Research income
\$38.6 million
– up 7.4% on 2018

New CBD space opens
to foster engagement
with business, industry
and government

Australian Research
Council rates Murdoch's
research in health,
food and sustainable
development among
the best in the world



Murdoch
University
welcomes Mr
Gary Smith
as its new
Chancellor



*All international students

Australian National Phenome Centre opens to lead national research in precision medicine

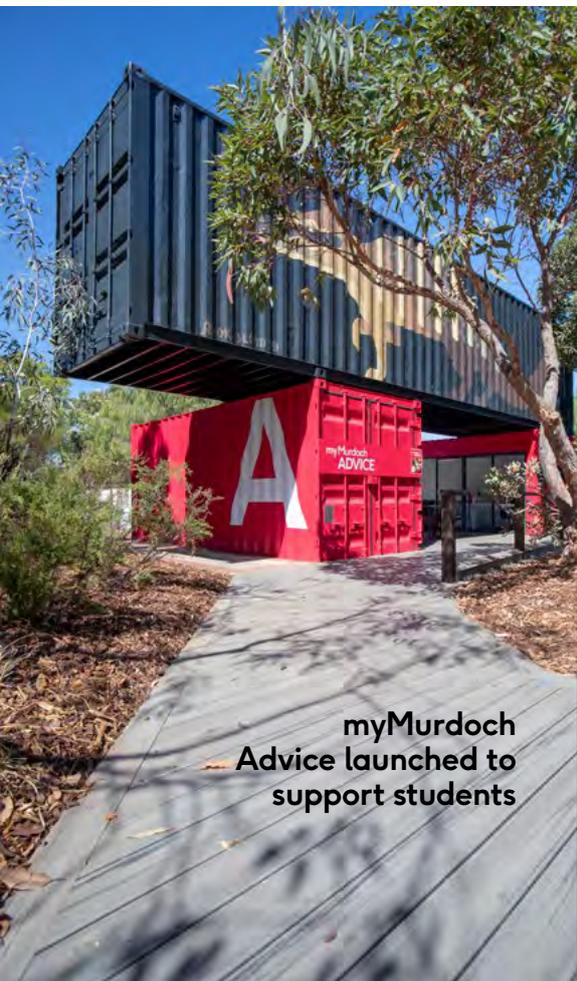


Academic Career Framework established

Comprehensive world rankings

- Top 500 Times Higher Education (THE) World University Rankings 2019
- Top 100 Times Higher Education Young University World Rankings 2019 (Universities under 50 years of age)

- More school leavers make Murdoch their first choice
- Domestic student recruitment up 5.9%
- International recruitment up 11.4%
- Total number of students: 25,000+



myMurdoch Advice launched to support students

Good Universities Guide – FIVE STARS for:

- Student:teacher ratio (number 1 in WA)
- Overall experience
- Student support
- Teaching quality
- Learner engagement



Key Statistics

Total domestic undergraduate students (EFTSL)*

14,211

Total students international onshore (EFTSL)*

3,112

Five Year Summary – Key Statistics

		2019	2018	2017	2016	2015
STUDENT STATISTICS*	Total	25,426	24,095	23,238	23,153	23,244
Number of students	Commencing	10,553	10,134	9,078	8,580	7,904
Student load (EFTSL)*	Total	17,412	16,066	15,192	15,670	15,524
	Undergraduate	14,211	13,569	13,234	13,752	13,604
	Postgraduate	3,202	2,497	1,958	1,918	1,920
Student load by funding source (EFTSL)*	Commonwealth Grant Scheme	9,569	9,168	8,809	7,984	7,692
	Research Training Program	316	338	336	319	338
	Domestic fee paying					
	– Undergraduate	1	2	1	0	0
	– Postgraduate	584	604	613	645	553
	International onshore	3,112	2,109	1,397	1,321	1,478
	Transnational	3,798	3,816	3,998	5,382	5,432
	Other	32	30	38	18	31
OUA student load (EFTSL)	Total	436	470	598	669	739
	Murdoch reported*	177	201	231	160	189
	OUA reported	260	270	367	509	550
STAFF STATISTICS ^	Total	1,890	1,771	1,758	1,783	1,644
Staff (FTE)	Academic					
	Teaching only or mainly	410	298	275	277	203
	Research only or mainly	79	76	66	79	67
	Teaching and research	324	376	408	411	403
	Other	28	19	15	16	10
	Non academic	1,048	1,002	993	999	959

Artist credit: Gemma Smith – Boulder #2 (detail).

*Equivalent Full-time Student Load

Total staff
(FTE)

1,890

Total students

25,426

Total revenue

\$406.9M

FINANCIAL STATISTICS (Consolidated)

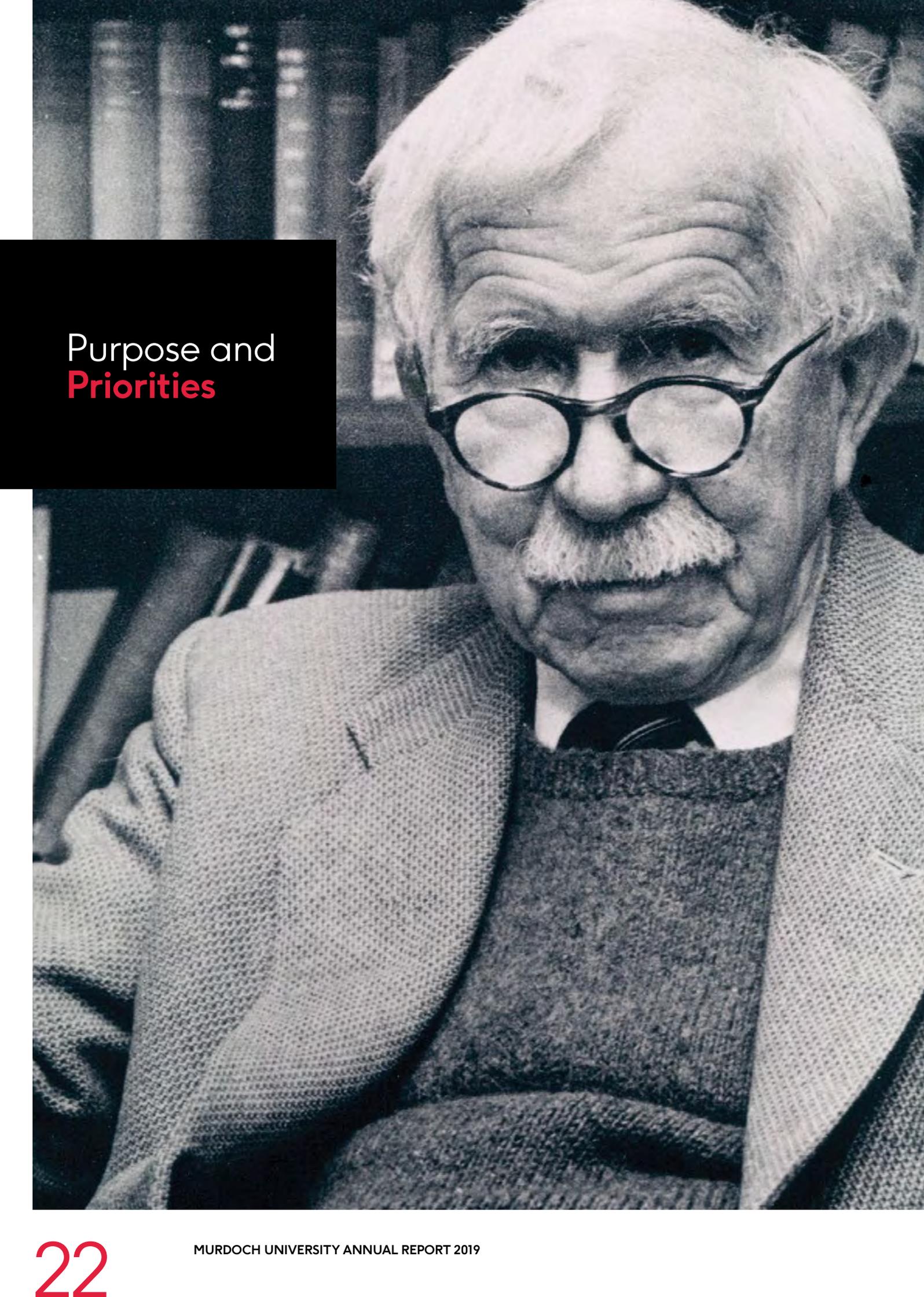
Net operating result (\$000's)	24,294	15,603	3,645	-5,423	-4,841
Operating margin (%)	6.0	4.2	1.1	-1.6	-1.5
Net assets (\$000's)	857,714	821,829	798,350	815,328	824,063
Total assets (\$000's)	1,206,674	1,149,687	1,116,391	1,129,260	1,120,524
Total revenue (\$000's)	406,919	371,923	344,411	346,044	319,400
Total research income (\$000's)	38,630	36,036	30,710	24,112	20,758

*Data based on Murdoch University's reportable student load only. Values are subject to student revisions and final quarter submission updates.

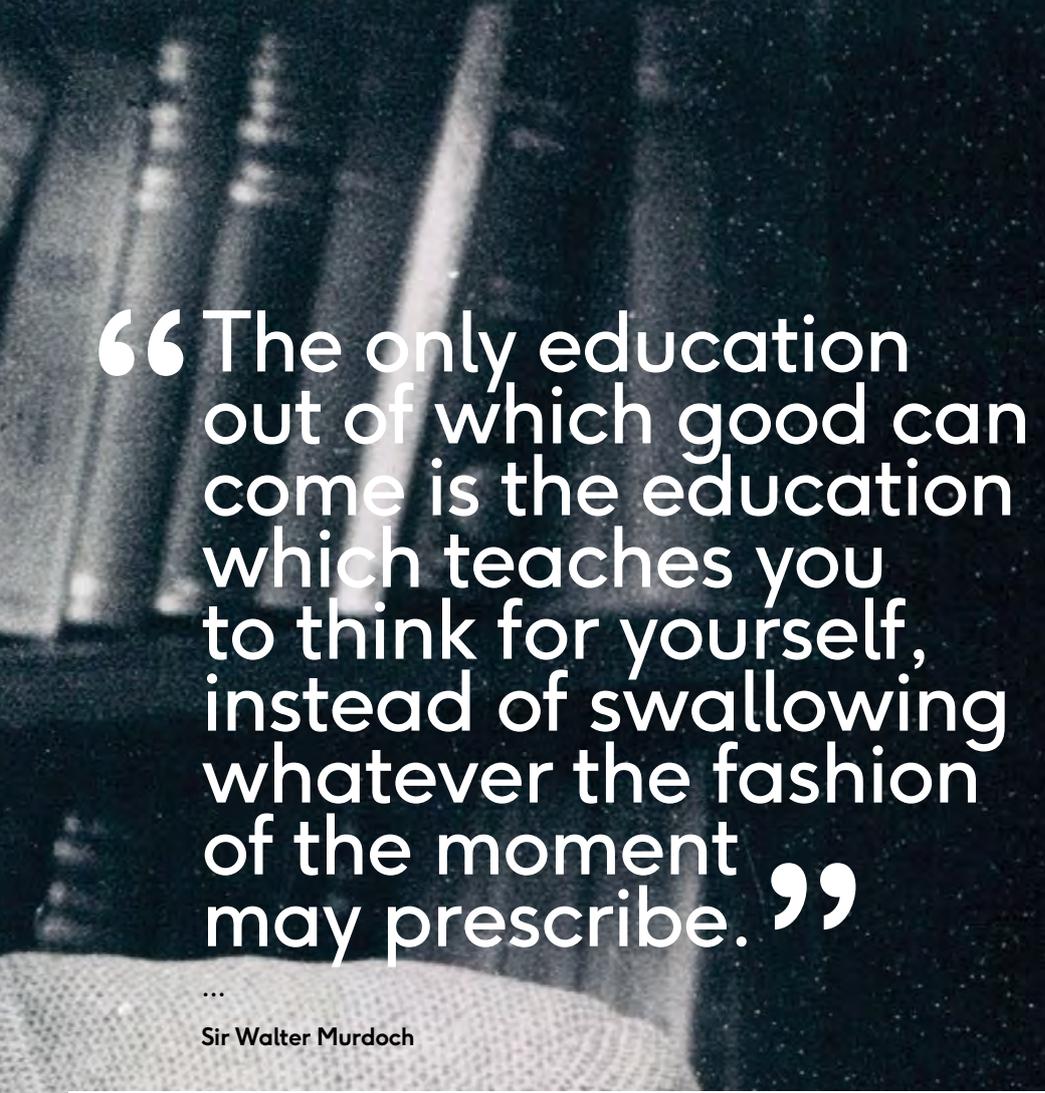
^ Staff statistics do not include staff employed by transnational partners. The values are those determined on the 31st December.

NUMBER OF STUDENTS

		South St	Mandurah	Rockingham	Singapore	Dubai	Myanmar	Total
Enabling	Total	1,251	75	105	0	0	0	1,431
	Commencing	1,180	74	100	0	0	0	1,354
Undergraduate	Total	12,966	581	20	5,173	385	0	19,125
	Commencing	4,727	196	0	1,654	150	0	6,727
Postgraduate Coursework	Total	3,532	48	0	375	115	35	4,105
	Commencing	2,051	26	0	190	24	30	2,321
Higher Degree by Research	Total	761	3	1	0	0	0	765
	Commencing	149	1	1	0	0	0	151
Total		18,510	707	126	5,548	500	35	25,426
Completions 2018		Murdoch	Mandurah	Rockingham	Singapore	Dubai	Myanmar	Total
		2,808	162	22	1,716	143	0	4,851



Purpose and
Priorities



“The only education out of which good can come is the education which teaches you to think for yourself, instead of swallowing whatever the fashion of the moment may prescribe.”

...

Sir Walter Murdoch

OUR VISION

Murdoch University was formally established by an Act of the Western Australian Parliament in 1973 to meet the growing higher education needs of the community. Named after prominent Australian author and philosopher, Sir Walter Murdoch, and officially opened on the centenary of his birth on September 17, 1974, Murdoch University was the first in Australia to offer a new, flexible admission system. This made tertiary education more accessible to the community—a tradition and ethos that the University upholds to this day. Today, 25,426 students from 99 countries and almost 2000 staff, Murdoch is realising its vision as a significant, comprehensive university with world-leading research providing solutions to some of the world's big challenges.

OUR PURPOSE

“To be a creative force for current and future generations.”

With these words, Murdoch University reinforces its central role in our local, national and global community—applying our creativity, knowledge, skills and determination to make a real difference in the lives of people everywhere. Murdoch plays a key role in the economic and social wellbeing of many communities and we have a mandate to be of service to society.

OUR GUIDING PRINCIPLES AND VALUES

For centuries, universities have shaped the world we live in through the creative force of education and research.

Across Murdoch University, there is a shared belief that our academic endeavours are undertaken to provide a benefit to current and future generations.

Our *Strategic Plan and Future Horizon 2017-2027* outlines the University's guiding principles:

- **Equity and Social Justice.**
- **Opportunity.**
- **Sustainability.**
- **Global responsibility.**

Murdoch's principles come to life through our culture, as an institution where the following values are clear:

- **Integrity:** We act with integrity and trust in the best interests of the University, and defend and express academic freedom.
- **Respect and Diversity:** We embrace and value people, irrespective of background, and the individuals and organisations that support our endeavours.
- **Purpose:** We respond with purpose to the changing higher education sector in a way that is performance-based, accountable and empowered.
- **Excellence and Future-focus:** We promote the highest standards of intellectual inquiry and rigour, embrace continuous improvement, and value, celebrate and reward the success of our people.

OUR STRATEGY

Murdoch's *Strategic Plan and Future Horizon 2017-2027* articulates the University's goals through the following structure:

The Strategic Plan is underpinned by two aims: to educate free thinkers who thrive in society and are sought-after by employers; and to provide life-changing solutions to the world's big challenges through outstanding translational – or “real-world” research and innovative practice.

The three lenses guide our endeavours and represent our most important priorities, while our pillars represent the core activities of the University.





“ We embrace and value people, irrespective of background, and the individuals and organisations that support our endeavours. ”



Students and
Education

“ The University is proud to be a welcoming, diverse and inclusive campus that actively supports the success of all our students. ”

...
Professor Romy Lawson, Provost

Artist credit: Kyle Hughes-Odgers – *Help is on the way* (detail).



Murdoch University strives to ensure all students enjoy an outstanding educational experience, with a range of innovative support services in place to promote success.

Students and Education connect to all areas of the University's *Strategic Plan and Future Horizon 2017-2027*.

Student satisfaction, graduate outcomes, student retention and completion and the inclusion of "real-world" learning in the curricula are all part of a suite of Key Performance Indicators and benchmarks on which the University judges its own performance.

Independent assessments also consistently score Murdoch favourably on a range of important student outcome and teaching indicators.

Highlights from the Good Universities Guide saw Murdoch achieve:

- Five stars for student support and seventh place nationally.
- Five Stars for overall experience.
- Five stars for teaching quality and eighth place nationally.
- Five stars for learner engagement.
- First in Western Australia and 10th nationally for social equity (enrolling students from low socio-economic backgrounds).
- First in Western Australia and first nationally for student:teacher ratio (five stars).
- Equal to national average for graduate starting salaries.

Individual courses ranked highest in Australia were: Engineering for overall quality and student support; and Veterinary Science for skills development.

Individual courses ranked highest in Western Australia (and top 20% nationally) were: Engineering for teaching quality; Communications for skills development and learning resources; Nursing for student support and learner engagement; and Business for learner engagement.

Looking ahead, we are:

- Increasing focus on student success and student wellbeing across the University, demonstrating the positive impact that has on student learning.
- Designing and implementing new delivery models for postgraduate courses in the CBD campus, supported by high-quality online learning.

- Growing the number of staff formally recognised for their teaching quality and educational leadership through the Advance HE fellowship scheme running at Murdoch.
- Developing collaborative learning and teaching approaches for large classes and laboratories, in preparation for the opening of the New Academic Building.
- Enabling opportunities for students and staff to co-design new and innovative ways to strengthen the student voice in all areas of University life.

“In 2019, Murdoch achieved a range of five-star rankings from the Good Universities Guide, placing Murdoch among the top universities in the country.”

Creating a state-of-the-art physical and digital environment for learning forms one of the key pillars of Murdoch's Strategic Plan. For example, Murdoch was among the first tertiary educators in the world to offer full digital delivery of degree courses through our digital partner, FutureLearn.

Major achievements for Technology Enabled Learning (TEL) in 2019 included: establishment of Digital Learning Standards for online learning; a micro-credentialing project; Educational Analytics 4.0; Murdoch online brand and catalogue consolidation; technology enhanced learning spaces; and establishment of a Technology Enabled Learning Steering Group to guide further development.



CAREER LEARNING SPINE

In 2019, 2,573 students enrolled in Murdoch's innovative Career Learning Spine - a new pathway that forms part of the curriculum for undergraduate degrees. Depending on the degree, students choose up to three units that provide practical, transferable, career-based skills and include: managing your career; building enterprise skills; and networking like a professional. Forty or more hours of placements is also included.

What our students say about the Career Learning Spine:

"This course gave me a sense of direction and was the reason behind my choice of course transfer."

"The best aspects of the online resources were that the information provided was relevant and up to date; it allowed for open discussion about topics with peers; and it included audio-visual material that we could watch to gain information instead of just reading information."

"This real-world learning experience has further developed my enterprise skills, and it has given me purpose and provided me with confidence in my abilities in a workplace environment."





Guild collaboration a success

The University collaborated successfully with the Murdoch Student Guild throughout 2019, including on the delivery of the Murdoch Industry Mentoring (MIM) program. This program aims to make connections between students and professionals to establish lasting and meaningful mentorships. The scheme provides Murdoch students with a relationship to gain insight into their industry, develop career-relevant skills, and prepare for the transition into the workplace. The program has garnered strong student interest. Most students who participated used the opportunity to achieve their professional goals set at the beginning of the program, and many have gone on to gain meaningful work experience from the opportunity.

LAUNCHPAD

Murdoch University's innovation hub, Launchpad, expanded its role as a platform for students and Western Australian businesses to connect, collaborate and co-create during 2019.

In line with Murdoch University's Strategic Plan, Launchpad is a key lever to bring students and external stakeholders together to develop truly innovative partnerships.

On top of other meeting types, the Launchpad hosted 110 events involving more than 3300 students and over 1200 external business invitees during 2019. These events included items on careers, employability, research, business networking, business disruption and entrepreneurship.

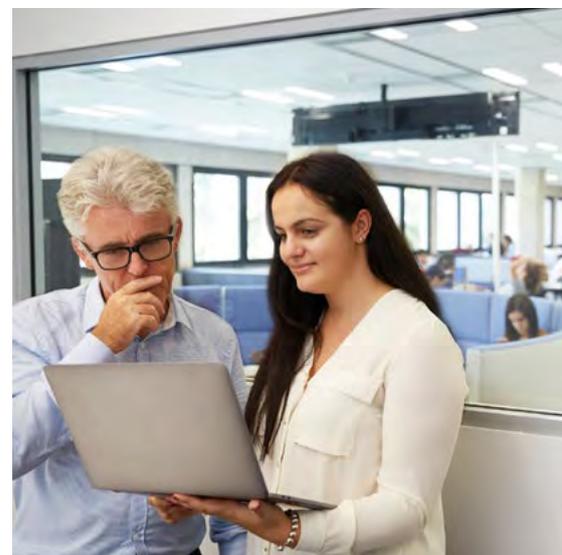
Entrepreneurship for student businesses is supported through:

- One-to-one business consultations and mentoring with Murdoch's Entrepreneur-in-Residence, Jeremy Chetty.
- Free access to a prototype laboratory for students.
- Industry Hackathons, including an external industry-engaged hackathon conducted with ARUP and Schneider Electric.

The Launchpad coordinated the Think Big! program, working with a range of entrepreneurial trainers in Perth, Singapore and Dubai, as well as the Commonwealth Bank.

The final was hosted in Perth with the first place being won by Abayaah, a team of Dubai students, for a highly customer-serviced clothing manufacture and delivery business model for Middle Eastern markets. Second and third place went to a Singaporean team and Perth entrepreneur respectively.

Launchpad organised five start-up huddles for a mixture of external entrepreneurs and early-stage student and staff start-ups to present their ideas to an audience that included students, staff, investors and industry experts.



Students and Education

SimLab's virtual classroom experience picks up major award in 2019.

HIGHLIGHTS

2019 EDUCATION HIGHLIGHTS

The team behind the Bachelor of Nursing e-portfolio travelled to Canberra to collect the Innovation in Curriculum Design and Pedagogy Practice prize at the Australian Awards for University Teaching. The nursing e-portfolio platform, developed by Associate Professor Caroline Nilson, Dr Martina Hopkins, Prue Andrus, Helen Dugmore and Cormac Norton, prepares Murdoch graduates for professional practice in a complex, dynamic and adaptive system by allowing them to explore and discuss real-world problems. Associate Professor Mary-Anne Kenny also received a citation at the awards for placing law students in authentic learning situations, such as a community legal centre, to motivate them to use the law for positive social change.

In 2019, our new course offerings expanded to include:

- Bachelor of Education (Secondary Teaching)
- Bachelor of Global Security
- Murdoch University Foundation Program
- Master of Business Administration/ Master of Human Resources Management
- Master of Teaching (Secondary)

Murdoch won the Educational Technology category of the prestigious AFR Higher Education Awards for Micro-teaching 2.0. The win recognised Murdoch's leading SimLab technology – a virtual classroom that allows pre-service educators to experience, practice and improve their teaching techniques in a safe environment and in real time. Education Discipline Head Dr Sue Ledger and the Education College team adapted SimLab for use in an Australian context.

At the start of Semester 2, 2019, the University launched the updated app and web platform myMurdoch. More than 10,000 students from Murdoch campuses in Perth and overseas logged in to access information about their studies and campus activities on the first day and by day three, 70% of students had used the platform. The update increased the functionality of the previous platform, giving students access to course information, a personalised calendar, career opportunity listings, notifications of on-campus activities, advice for studying, and health and wellness support.



Nursing e-portfolio award winners.

**Respect.
Now.
Always.**

The Vice Chancellor's Respect. Now. Always Advisory Group oversees the implementation of initiatives to address campus sexual assault and harassment. Respect. Now. Always (RNA) is a collaboration between Universities Australia and the Australian Human Rights Commission to identify prevalence - and plan to prevent incidents of - sexual harm in Australian universities. At Murdoch, students and staff can anonymously and confidentially report incidents through the Murdoch Safe app. These reports go direct to health staff to ensure the correct support and response is provided. Education is also provided by the University and through the Sexual Assault Resource Centre (SARC) and students who live in campus accommodation are not able to collect their keys until the Campus Living Villages consent training has been completed.

RNA actions taken in 2019 included:

- Specialised education for staff in effective responses to disclosure of sexual harm incidents.
- New works to improve coverage of CCTV and lighting on campus.
- Updated web-based information providing advice for students and staff in how to support someone who has experienced an incident of sexual harm.
- Collaboration with other Western Australian universities to provide information to Perth Transport Authority staff on university services for students who report incidents of sexual harm whilst using public transport.

From 2020, a range of new initiatives will be implemented, including: new bystander training for staff in effective responses to disclosure of sexual harm; enhanced anonymous and confidential online reporting; and participation in the follow-up RNA survey.





STUDENT WELLBEING AND SUPPORT

In 2019, Murdoch became the first university in Western Australia to provide a 24-hour multilingual personal safety service for international students feeling unsafe, ill, lost or injured. Other initiatives in place to support students include MentorMe, where first year students are assigned a second- or third-year student mentor to assist with organisation, exam preparation, reading and note-taking. UniEdge is an all-in-one support program for first year or new Murdoch students who need support or advice. Support services include Student Success Advisors, Peer Assisted Study Sessions, Murdoch Guild's Clubs and Societies, the Health Counselling Service, on-site medical service at the South St campus and myMurdoch Advice.

MYMURDOCH ADVICE

The University launched myMurdoch Advice at three locations at the Perth and Mandurah campuses in Semester 1, 2019 – a new model of student support offering face-to-face or email contact with staff or peer coaches on studying, wellbeing, getting the most out of university, or specialist advice for international students. The number of students seeking advice increased by 19% in Semester 2, with Student Success Advisors assisting students with 9,340 separate issues either in person or via email. This is in addition to 2,366 students assisted by Peer Academic Coaches. Enrolment, course advice and directions were the top three inquiry categories. Undergraduate students were the largest student type accessing myMurdoch Advice, with an almost even split between domestic and international students. This represents Murdoch's commitment to supporting students holistically by ensuring they have ready access to advice and support on or off campus. The new service was well received, with students rating it 4.92 out of 5 stars. The continuous upskilling of staff resulted in 92.4% of queries being resolved on-site.

K-TRACK

The award-winning K-Track program, which supports Aboriginal and Torres Strait Islander students to engage with and succeed at university, expanded further into school and the online space in 2019. Administered by the Kulbaradi Aboriginal Centre, this free, 14-week course provides an innovative pathway for Indigenous students who have not attained a direct ATAR pathway into Murdoch University.

RECONCILIATION ACTION PLAN

A new Innovate Reconciliation Action Plan 2019-21 was developed to continue building a culture within the University that values Aboriginal and Torres Strait Islander inclusion and success. Knowledge gained through education is a powerful tool for self-determination, societal change and reconciliation. The University's Innovate RAP signals our important commitment to achieving and sustaining gains in two key areas: student success and workforce numbers. Through these, we will create sustainable change for the place of Aboriginal and Torres Strait Islander students and staff at Murdoch University. The new Innovate RAP will be launched in early 2020 alongside a new employment strategy for Aboriginal and Torres Strait Islander people.

STUDENTS AS CHANGE AGENTS

Students across all Murdoch campuses were encouraged to act as “change agents” to create change within the University. Students were asked to align their ideas to a number of themes: supporting student success and wellbeing; enhancing physical and digital learning spaces; innovative curriculum and real-world learning opportunities; and ensuring equity, inclusion and social justice. In 2019, 15 students worked on a total of 11 projects, which included a new mentoring program to facilitate social connections between students; making the University’s Psychology teaching program more appropriate for Indigenous students; creating a more child-friendly campus for students with children; an orientation resource for new international students; promotion of positive mental health for the Dubai student cohort; and a video explaining blended learning for Singaporean students.

Students inspire with new ways of thinking

Real change often starts with a conversation, and this approach is helping Murdoch’s psychology curriculum better reflect the worldview and perspectives of Aboriginal people.

Jaye Lee Snowden and Shaun Garlett, both Psychology students (with Jaye also studying criminology), saw an opportunity to “indigenise the curriculum” through the University’s Students as Change Agents in Learning and Teaching program.

Jaye, a Koori woman, and Shaun, a Noongar Yamatji man, hope their project will benefit all psychology students throughout their studies and in their working lives as mental health professionals.

To kickstart the process, they hosted a “yarning circle” to get feedback from students on their understanding of and expectations around indigenous course content, how it is taught and its relevance.

“We found students want to have input into discussions around culturally sensitive content, and for that content to reference contemporary issues for Aboriginal people,” Jaye said.



Students Shaun Garlett and Jaye Lee Snowden have helped “indigenise” the Psychology curriculum.

“Aboriginal people are disproportionately affected by mental illness, suicide and contact with the justice system. By enhancing cultural safety in teaching practice and improving the delivery of course content, we hope our project will help students throughout their careers.”

Another Students as Change Agents project enhanced new services to support Murdoch students with children.

The University had identified the need for an on-campus parenting room and worked with students to develop an appropriate area.

Law Student Puimun Lee said student parents needed a space to change nappies, breastfeed or study while their children play in a secure environment. A single location where social connections could be formed with fellow student-parents was also important.

Lee went on to create a Murdoch Parents Network Facebook page, which now has more than 80 members who can connect, share and support each other. A playgroup also meets twice a month.

“University can be a very different experience if you have young children,” Lee said. “It can be isolating and seem a bit hard,” she said.

“It’s great to connect with people in the same situation who can help and support each other and understand some of the challenges.

“Ultimately, I would hope parents might consider further study at Murdoch knowing there is greater support for them. It gives you a sense of pride to be able to show your children where you study and why it’s important.”



Student Puimun Lee with her son Noah, 1, in the University parent room.



LEARNING EXCELLENCE ACADEMY

The Learning Excellence Academy (LEAD) promotes and celebrates excellence and leadership in teaching and learning at Murdoch. LEAD provides staff with collegial professional learning opportunities throughout the year, culminating in a two-day professional learning event in November. LEAD Fellowships recognise excellence and align with Murdoch's strategic priorities by enhancing the student experience and improving student retention, boosting international education activities, and supporting staff through professional learning, reward and recognition. Recipients of the 2019 Vice Chancellor's Award for Excellence in Learning and Teaching were invited to nominate for a LEAD Academy Fellowship. The winner in the category of General Teaching Excellence was Dr Garth Maker, while Michelle Buchanan, Jo Walker and Dr Brendan Scott received citations for Excellence in Enhancing Learning.

PRIDE

Murdoch staff and students joined the biggest Pride Parade in Perth's history in December. The University's active involvement in Pride activities, including the Pride Picnic, Pride Week and Pride Festival, reflects its foundation principles of equity and social justice, opportunity, respect and diversity. Other support for the LGBTIQ+ community includes the Ally Network and Murdoch Queer Collective.

SOUND ON

Perth's only music festival for high school students was hugely successful, with thousands of high school students converging on Murdoch partner RAC Arena in September for the six-hour event. In just its second year, Sound On is proving to be a unique way for Murdoch to connect with prospective students and bring our "free thinking" ethos to life.

ACADEMIC CAREER FRAMEWORK

After extensive consultation and negotiation, Murdoch's new Academic Career Framework will be implemented at the beginning of the 2020 academic year. In 2019, a number of focus groups were held and feedback taken before an announcement on the final framework. The Academic Career Framework has a number of important objectives: to enable achievement of Murdoch's strategic goals; apply a set of criteria or standards to make performance standards clear; simplify and improve the administration of probation and promotion; and support the University's commitment to equity by considering performance relative to opportunity.

INDO-PACIFIC SCHOLARSHIP WINNERS

Three Murdoch undergraduates - Kate Skinner, Axel Diamond and Connor Nicholson - received New Colombo Plan Scholarships at an official ceremony at Parliament House in late 2019. Minister for Foreign Affairs and Women, Senator Marise Payne, and Minister for Education Dan Tehan announced 125 scholarships, which allow Australian students to study and intern in the Indo-Pacific region in 2020.

ATHENA SWAN

Athena SWAN Science in Australia Gender Equity (SAGE) is an internationally-recognised program which aims to improve gender equity in science, technology, engineering, mathematics and medicine (STEMM) in the higher education and research sector.

Murdoch is seeking Bronze accreditation under the program, which requires the University to demonstrate that in relation to STEMM disciplines it: understands the current state of gender equity; understands the structure, systems and culture which contribute to gender inequity; and has a four-year action plan to address gender inequity. After making steady progress throughout 2019, an announcement on Murdoch's application for accreditation is expected in 2020.

During 2019, a range of SAGE activities, events and consultations were held, and new programs put in place. These included:

- The opening of two new parent rooms in the Student Hub and Library.
- Promotion of International Day for Women and Girls in Science.
- International Women's Day morning tea.
- Living Library event.
- Women in Leadership morning tea, in collaboration with the WA Cricket Association. WACA CEO Christine Matthews gave an address on her career and successes in a challenging, often male-dominated industry.
- Murdoch Women in STEMM seminar series and STEMM symposium.
- Women in Leadership professional development opportunities.
- Facilitation of community consultations at Murdoch on the WA Women's Plan – a State Government initiative.
- Supporting the 16 Days in WA campaign via news articles, library displays and collaborating with *Share the Dignity's* #itsinthebag initiative.
- Sponsorship of the BioInfo Summer event.
- Launch of the RLadies initiative.
- Nominations and attendance at the Women in Tech WA conference.
- Staff consultation towards a four-year Athena SWAN Action Plan.
- Launch of an Athena SWAN website.

AT A GLANCE

2019 AT A GLANCE

Student type

- 60% domestic
- 24% international offshore
- 16% international onshore

International student satisfaction

- 90% overall satisfaction with the student experience (International Student Barometer)
- 92% overall satisfaction with the living experience
- 91% overall satisfaction with student support services

Social inclusion

- 10% of students from regional or remote areas
- 2% commencing Aboriginal or Torres Strait Islander students
- 25% of Murdoch students are first in their family to attend a university

Total Students

25,426

International Student Satisfaction

90%





Research and
Innovation

“Translating research
into tangible outcomes
for the real world is
Murdoch University’s
particular strength.”

...
Professor David Morrison, Deputy Vice Chancellor Research and Innovation

Artist credit: Timothy Cook – *Kulama* (detail).

Essential elements for all life on earth – food security, human and animal health and welfare, and environmental sustainability – remain at the core of Murdoch University’s approach to translational research and innovation.

Built around three major research institutes: the Food Futures Institute; Harry Butler Institute supporting the co-existence of development and the environment; and the Health Futures Institute; all components of Murdoch’s research efforts network to deliver practical solutions that balance sustainability principles with economic growth.

“Our strategic research focus is attracting impressive partnerships to Murdoch University.”

In 2019, the Australian National Phenome Centre was awarded \$10 million from the Commonwealth Government Medical Research Future Fund, while the Harry Butler Institute secured \$25 million from the Commonwealth Government toward the construction of a world-first environmental education facility. Additional investment in this facility is also being negotiated with other strategic partners.

Translating research into tangible outcomes for the real world is Murdoch University’s particular strength. Our corporate and industry research partners are crucial contributors to our research story, and we are fortunate that these are in a strong phase of expansion, evidenced by our research income growth from these sources.



Murdoch University continues to position itself as one of the nation’s top research centres in areas of importance to the Australian, and indeed the world’s population.

The Australian Research Council’s Excellence in Research Australia evaluations reported in 2019 and found Murdoch’s research in health, agriculture and environmental sciences was at or above world standard in 94% of the fields in which we submitted data for assessment.

Performance in physical chemistry, environmental science and management, zoology, agricultural biotechnology, clinical sciences and medical microbiology achieved the highest possible rating and assessed at well above world standard.

Importantly, the University is beginning to show strength and depth with a 600% improvement in the number of broadly defined fields of research being rated above world standard. Science is emerging as a particular strength with the assessment of research excellence being rated at above world standard which again is a significant improvement over the 2015 ERA assessment – up 25%.

Cultural studies, policy and education research and new entrants applied mathematics, condensed matter physics, artificial intelligence and image processing, and electrical and electronic engineering were also rated at or above world standard.

STRATEGIC THEMES DRIVE MURDOCH RESEARCH AND INNOVATION

Two years into the *Research and Innovation Plan 2018-2023*, Murdoch is well-placed to contribute solutions to major global problems.

In 2019, significant investments were made in key research infrastructure and personnel. New Institute Directors were appointed in Health (Professor Jeremy Nicholson) and Food (Professor Peter Davies), to complement the earlier appointment of Professor Simon McKirdy in 2017 to the Harry Butler Institute. Thus, leadership in the three areas of focus – Health, Food and the Environment – identified in the Murdoch mandala, has now been established.

Significant investment in research infrastructure was also completed in the form of the Australian National Phenome Centre (ANPC) located in the Harry Perkins Institute of Medical Research (South) building at Fiona Stanley Hospital.

The Pawsey Supercomputer of which Murdoch is a joint venture partner has also been funded and we have committed to creating a multi-omics platform which will be accessible to University staff and collaborators by the end of 2020.

The Southern Grains Research hub - a \$7 million project with the Department of Primary Industry and Regional Development (DPIRD) and Curtin University - commenced towards the end of the year and is expected to be completed by early 2020.

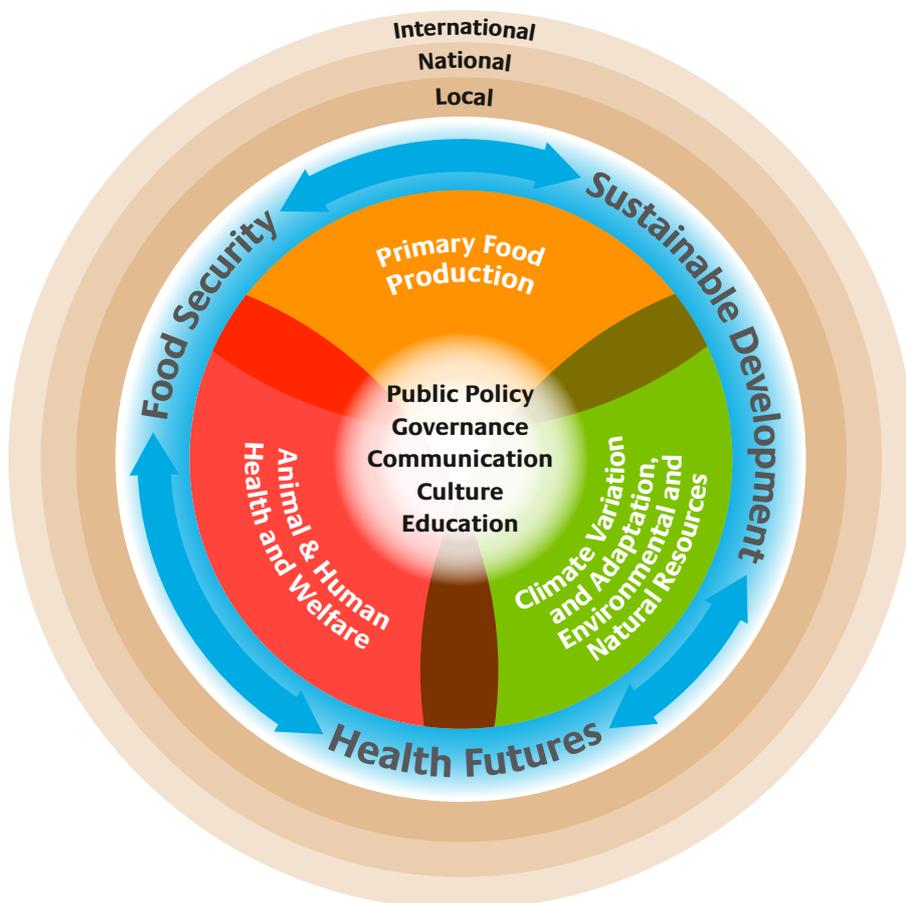
The Hub comprises research field plots and new climate-controlled glass houses. This will facilitate research collaborations between the partners and with industry and in particular, strengthen the Western Barley Alliance agreement with DPIRD into the future.

The five-year research plan keenly focuses Murdoch on translational research that delivers practical, impactful and sustainable solutions, further strengthens our strong community and industry-based partnerships, and expands national and international collaborations.

One significant achievement that exemplifies the translational focus in 2019 was the commercialisation agreement with the South African Government for a new legume pasture plant that thrives in depleted and arid soils.

Our key areas of research focus are:

- Primary food production, including grains, livestock and fish.
- Climate variation and adaptation; environmental and natural resources, including land and marine ecosystems, environmental engineering, land and water management, including dry land agriculture.
- Human and animal health and welfare, including infectious diseases, genetics, phenomics and bioinformatics.
- The translational disciplines of public policy governance, political science, culture and communication.



RESEARCH FUNDING SUCCESS

In 2019, Murdoch attracted more than \$40.6 million in cash funding for research, with \$38.6m recognised in line with accounting standards.

Researchers were awarded \$23.1m in competitive government grants - up 29.3% on 2018 - and \$15.4m from other sources of funding, including direct industry and Collaborative Research Grant funding.



“To be healthy we need nutritious food, to produce nutritious food we must look after our environment. Murdoch University’s research on the nexus between human, animal and environmental health is providing a roadmap for addressing complex and unique global challenges.”

Professor David Morrison, Deputy Vice Chancellor Research and Innovation



FOOD FUTURES INSTITUTE

With its focus on the sustainable use of land and water resources to improve food, forestry and fibre production, researchers at the Food Futures Institute are tackling some of the world's biggest problems relating to food provenance and security, including erosion, nutrient runoff, salinity, biodiversity loss and responses to climate change.

Three centres are based within Food Futures: Animal Production and Health; Crop and Food Innovation; and Sustainable Farming Systems.

Led by Pro Vice Chancellor Professor Peter Davies, the Food Futures Institute has a remarkable history of successful translational research and works collaboratively with industry and government partners within Western Australia, nationally and around the world.

Examples include:

- The cultivation of a new legume pasture plant able to survive Western Australia's harsh, dry summers and sandy soils. Led by Professor John Howieson, researchers discovered *Lebeckia* in the Western Cape of South Africa and developed it for local conditions. The cultivar offers scope for farmers to increase sheep production and wellbeing over summer and autumn, and transform vast tracts of previously unproductive land in the Wheatbelt. In 2019, WA Agriculture Minister Alannah MacTiernan witnessed the signing of a commercialisation agreement with South Africa for the new *Lebeckia* cultivar, to be sold commercially as "Isanti" and made available to Australian and South African farmers from 2022.
- The development of new barley strains for improved resistance to extreme environmental adaptation, pest and disease resistance, better yields and improved quality. Led by Professor Chengdao Li, Murdoch's researchers were involved in generating the first barley reference genome in 2017. This original work is now being extended into a new project – the International Barley Pan-Genome Consortium.
- New technology transforming the Australian meat industry. Developed at Murdoch by Associate Professor Graham Gardner in consultation with industry, the DEXA (Dual energy x-ray absorptiometry) system can determine how much bone, muscle and fat is in a sheep or beef carcass, allowing processors to measure the amount of saleable meat in a carcass and therefore its value in the market. Carcasses with greater amounts of saleable meat are more valuable while overfat carcasses cost farmers in wasted nutrition and are more labour-intensive for abattoirs to process. The shift to value-based pricing of sheep carcasses is estimated to return a gross value of up to \$420 million annually to the industry by 2035.



HIGHLIGHTS

2019 RESEARCH HIGHLIGHTS

Researchers from the Centre for Crop and Food Innovation examined ways to develop a barley less susceptible to seed loss, caused by the straw under the head breaking and related to nutrient deficiencies during critical growth stages. Yield losses of up to 9% have been recorded in the barley crops of Western Australia's south coastal districts and the Lower Eyre and Yorke peninsulas in South Australia. Led by Professor Chengdao Li, the researchers are developing new breeding lines, new germplasm and molecular markers to develop a stronger variety of barley.

The Centre for Digital Agriculture was created to develop new technologies to shape the agricultural industry of the future. With funding through the State Government's Royalties for Regions program, researchers are collaborating on new technological advances and big data to help farmers make more informed decisions to improve sustainability and productivity and manage risks like climate change, rising energy costs and market volatility. Professor Simon Cook, Premier's Agriculture and Food Fellow, and Dr Fiona Evans, Premier's Early-Mid Career Fellow, are leading this research.

The State Biotechnology Centre worked with the Department of Primary Industries and Regional Development to develop a new wheat variety with improved resistance to the fungal disease *Stagonospora nodorum* blotch (SNB). Led by Adjunct Professor Michael Francki, 234 wheat genotypes from Australia, Syria and Mexico were evaluated in six different WA Grainbelt locations to develop an SNB-resistant variety. SNB costs Western Australian growers more than \$100 million each year due to early leaf death and reduced grain fill.

Research led by Professor Richard Bell and Professor Richard Harper is examining how the addition of organic and clay matter can improve the productivity of sandy soils found throughout Western Australia and South Australia. The project forms part of the Cooperative Research Centre for High Performance Soils (Soil CRC). The researchers are testing a clay mineral called hydrotalcite, which contains unique properties that help sandy soils hold onto essential nutrients like nitrate, phosphate and sulphate.



Dr Liselotte Pannier and Professor David Pethick with Australian lamb.

The highly successful Cooperative Research Centre for Sheep Industry Innovation (Sheep CRC) wound down in 2019. Murdoch University researchers were heavily involved in the Sheep CRC from its inception in 2001, with Professor David Pethick appointed meat program leader. The CRC was a major driver of improvements in meat eating quality and value, led to the development of a cuts-based Meat Standards Australia grading system for measuring saleable meat yield and eating quality, improved the price of lamb; developed new processing technologies to meet consumer expectations and more. The Australian sheepmeat industry was \$317 million better off as a result of the research and new technologies that flowed from the CRC, according to an independent economic assessment released in 2019. A new generation of outstanding women scientists also emerged over the course of the CRC, strengthening diversity within the industry.

HARRY BUTLER INSTITUTE

The Harry Butler Institute is recognised globally as a leader in translational environmental research that supports sustainable development and the coexistence of business and biodiversity.

Led by Pro Vice Chancellor Professor Simon McKirdy, four centres are based within the Institute: Sustainable Aquatic Ecosystems; Biosecurity Research; Environment and Biodiversity; and Water, Energy and Waste.

Major research areas that fall within the scope of the Institute include sustainable fish production, threatened marine species, mapping the health of the Indian Ocean, natural ecosystems, food safety, biosecurity, forestry, climate change adaptation, alternative energy sources, wastewater treatment and desalination, sustainable mining practices and more.

Known for its successful collaborations and partnerships, the Institute works to create a research space where community, business and biodiversity can come together for the benefit of all.

Four centres are based within the Institute: Sustainable Aquatic Ecosystems; Biosecurity Research; Environment and Biodiversity; and Water, Energy and Waste.

2019 RESEARCH HIGHLIGHTS

Researchers from the Aquatic Megafauna Research Unit and global collaborators published a study on the impact of plastic pollution on marine species like manta rays and whale sharks in Indonesia's Coral Triangle. This was the first study to provide theoretical estimates of plastic marine debris ingestion for marine megafauna, with researchers finding they were exposed to large amounts of plastic – especially in the wet season. The researchers hope the study findings will help drive local education campaigns that encourage communities to tackle plastic debris in the region and protect the marine environment.

Murdoch scientists helped develop a new framework to guide successful mine closures and restoration projects. The framework provides mining companies and regulators like the Environmental Protection Agency with clear examples of how land can be transitioned from mining to development, agriculture or conservation use.

Lithium extraction technology could be developed to convert a plentiful unused resource into high grade lithium and valuable by-products. The research, part of a major collaboration between the Minerals Research Institute of WA, Murdoch University and sponsors Lithium Australia and Venus Metals Corp, sought to develop new technology for battery grade lithium production. Associate Professor Aleks Nikoloski led the project, investigating how chemical process conditions could be optimised to separate impurities, resulting in a purified lithium product liquor. Murdoch University is also a consortium partner in the \$135 million Future Batteries industries Cooperative Research Centre announced by the Federal Government in 2019.

Researcher Dr Stuart Dawson found vulnerable bilbies are important for whole ecosystems of smaller animals in the West Kimberley. The burrows of bilbies are used by other animals to survive in the harsh landscape.





Researchers at Murdoch University, the University of Hawaii and Aarhus University in Denmark report that hand-feeding dolphins decreases their reproductive success and hinders calf survival—even when conducted under State-issued permits. PhD student Valeria Senigaglia studied Bunbury’s local population of bottlenose dolphins and found that only one in three calves from mothers provided with food survived to weaning compared to a 74% survival rate of calves from females who were not fed.



Cruise vessels can pose a high risk to fragile marine and terrestrial ecosystems through the introduction of pest species. A team of researchers led by Professor Simon McKirdy completed a study into the presence of invasive insect species aboard a cruise ship re-purposed as an accommodation facility for Barrow Island workers. Barrow Island is an A-class nature reserve that is also home to Chevron’s Gorgon and WA Oil operations. While previous studies had been conducted into the presence of marine pests and rodents aboard such vessels, this was the first study of its kind to be conducted on stowaway insect species.

During 19 months of research aboard the Europa, Professor McKirdy and his team collected and identified over 73,000 insects representing more than 200 different species—four of which were identified as non-indigenous to Australia and included a high-risk species, the “destructive flour beetle” or *Tribolium destructor*. This discovery triggered a program of treatments aimed at eradicating the threat. The researchers found that fumigation with ethyl formate and nitrogen can be achieved while posing no detectable risk to the public or crew members.

HEALTH FUTURES INSTITUTE

The Health Futures Institute celebrated the opening of the Australian National Phenome Centre (ANPC) in 2019. Such is the breadth of the ANPC's capabilities, it will serve as an important platform for research across all Murdoch institutes.

The Centre, almost five years in the planning and execution, is Australia's first phenome centre and the most advanced within an international network. It will allow Australian researchers to study humans in the total environment – genes, lifestyle and environmental factors – to improve health and prevent disease.



WA Governor Kim Beazley, Deputy Premier Hon Roger Cook, Vice Chancellor Eeva Leinonen, Assistant Minister to the Prime Minister and Cabinet Ben Morton and Chancellor Gary Smith cut the ribbon at the official opening of the ANPC.

“The Federal Government announced \$10 million in funding support for the ANPC to further Australia's expertise in the emerging field of precision medicine.”

Led by internationally-renowned metabolomics pioneer and Health Futures Institute Pro Vice Chancellor Professor Jeremy Nicholson, the ANPC is positioning Australia as a world leader in the development of personalised medicine. Metabolomics is the science of phenotyping the metabolomic signature of organisms. It reflects the interaction between genetic, environmental and lifestyle impacts on an individual's biological fingerprint. It can be used for assessing current health status and future risks of disease contraction and expression.

In February, the Federal Government announced \$10 million in funding support for the ANPC to further Australia's expertise in the emerging field of personalised – or precision medicine.

The Centre's aims align with the development of the State's Sustainable Health Plan. Better detection of risk factors, diagnostics and precisely defined therapeutic interventions will reduce the incidence of disease and the length of the patient journey – saving billions in health care costs while increasing healthy years lived.

Murdoch is grateful to the Western Australian Government for its ongoing support of the ANPC, with the appointment of Professor Elaine Holmes as the Premier's Science Fellow, and Dr Ruey Leng Loo as the Premier's Early to Mid-Career Fellow. Both fellowships commenced in January 2019 and run for four years, supported by \$1.5 million in State Government funding, matched jointly by Murdoch and Edith Cowan universities.

The ANPC has also formed a strategic alliance with Bruker Corporation, which is supporting the Food Futures Institute with a \$1.5 million Telethon grant for research into child development and nutrition.

The ANPC is the result of a powerful collaboration between all Western Australian universities and research institutes, State and Federal governments, the Australian Research Council, and Western Australian Health Translation Network.

The Health Futures Institute is more broadly focused on the interlinked facets of human health: understanding the genome and the organism's interface with the environment, disease surveillance, drug discovery, drug sensitivity and molecular therapeutics, systems medicine, health education and communication, rare and infectious (zoonotic) disease surveillance, sport and exercise physiology and rehabilitation, Aboriginal mental health, health and ageing across the lifespan, health sector management policy and economics.

Five centres are based within the Health Futures Institute: the Australian National Phenome Centre; Computational and Systems Medicine; the Ngangk Yira Research Centre for Aboriginal Health and Social Equity; Molecular Medicine and Innovative Therapeutics; and Healthy Ageing. Health Futures also houses the Institute of Immunology and Infectious Diseases.



Australian National Phenome Centre

World's most advanced phenome centre lures UK scientists

What makes not just one, but five top scientists uproot their lives in the United Kingdom and travel to the other side of the world?

For Dr Sam Lodge and four colleagues – three from Imperial College London and one from the University of Kent - it was the prospect of working at the best and most impressively-equipped phenome centre in the world.

It was also the chance to continue working with world experts in the field. Professor Jeremy Nicholson and Professor Elaine Holmes, who themselves left Imperial College London to help carve out a new frontier for Australian science in the field of precision medicine.

The Australian National Phenome Centre (ANPC) formally opened in October 2019, and is the single biggest research and development project in Murdoch University's history - including an investment of more than \$23 million in mass spectrometers and other sophisticated machinery.

The ANPC has the capability to conduct phenome testing on a mass scale. Phenotyping focuses on metabolites – the products of chemical reactions within the body – through testing of blood, urine and other fluids to build disease profiles for heart, cancer, Parkinson's and more.

Dr Lodge began working with Professor Nicholson and Professor Holmes at the National Phenome Centre, the first in the UK, in 2013. The centre was a legacy project from the 2012 London Olympics, where it emerged from the Olympic Drug Testing Lab that processed thousands of athlete samples.

Dr Lodge is the ANPC's Nuclear Magnetic Resonance (NMR) Manager.

"For me, the ANPC was a very exciting prospect. It is a larger centre, with more diverse instruments and we can go much further here with research than we could at Imperial," she said.



Dr Samantha Lodge with Nuclear Magnetic Resonance machinery at the ANPC.

"A number of research projects will start in 2020 where we can run a huge number of samples looking for biomarkers for certain diseases. Basically, we can identify healthy individuals metabolically and compare them with unhealthy individuals. From that we can pinpoint the cause of disease, suggest precision treatments and look to develop new therapies and cures.

"Yes, it was a huge decision to leave London, but I am so glad that we did. The ANPC is the world's best phenome centre and I am working with great people. The weather in Perth is pretty good too."

HIGHLIGHTS



2019 RESEARCH HIGHLIGHTS

The Federal Government announced a \$35 million allocation to the Cooperative Research Centre for Future Food Systems to turn Australia into a food export powerhouse. This is also supported by \$35 million from industry. The CRC will provide the agri-food sector with the research and development support needed for the transition from commodity production to a supplier of trusted, flavourful and nutritionally-rich foods. Professor Jeremy Nicholson was named the Chief Investigator of the CRC's research program into food value-adding, food provenance and quality – especially related to the nutraceutical benefits of food.

Murdoch University and PathWest researchers, Associate Professor Kevin Wong and Hamid Laga, used advanced artificial intelligence as a way to detect and diagnose cancer. The researchers are training a specialised computer to detect abnormalities in lymph nodes that may or may not be malignant. These algorithms may then help discern malignant from benign changes and detect early indicators of cancer by recognising patterns within the data.



Professor Jeremy Nicholson will head a Future Food System CRC's research program.

New research by Professor Meghan Galbally found that women with severe mental illness are three times more likely to develop Gestational Diabetes Mellitus (GDM). GDM increases the risk of preterm birth, having a larger baby and low blood sugar in the baby after birth. The research pointed to the need for women at risk to receive careful monitoring and care.

The Institute for Immunology and Infectious Diseases was the first research laboratory in Australia to be accredited under the prestigious new international Good Clinical Laboratory Practice standard. The Institute works to reduce the impact of disease on people and communities around the world, working collaboratively to investigate diseases of high global burden, including HIV, hepatitis C, Dengue and other infections, MS, autoimmune diseases, cancer and more.

Murdoch University and other WA universities, in collaboration with State and Commonwealth governments, launched the Defence Science Centre to develop cutting-edge defence-related research and innovation. Murdoch is leading research into human performance and investigating ways to manage the impact of stress on physiological and cognitive function.

The Ngangk Yira Aboriginal Health and Social Equity Research Centre and Telethon Kids Institute published research on the prevalence of mental health-related issues among mothers of Aboriginal children in Western Australia. They found that early intervention and support for vulnerable women in the earliest stages of family planning is required, along with the development of a holistic healthcare model, multisector approach and culturally appropriate mental health services for Aboriginal children and their parents.

Research led by Murdoch's Professor Steve Wilton and Professor Sue Fletcher has resulted in the development of a second treatment for Duchenne Muscular Dystrophy (DMD), with the drug gaining accelerated approval by the US Food and Drug Administration. DMD is a fatal childhood disease that affects one in 2500 boys and causes progressive muscle weakness and loss of muscle mass. Those affected are typically wheelchair-dependent by the age of 12 and many do not survive beyond their mid-20s. The second treatment, golodirsen (Vyondys 53) delays progress of the disease by tricking cells into "skipping" over the disease-causing genetic error – acting as a kind of genetic "white-out".

Murdoch researchers found a twice daily application of coconut oil to the skin of very pre-term infants is a safe and effective way to improve their skin condition and could reduce their risk of infection. They developed a new test to measure the levels of the fatty acid monolaurin, a substance with antimicrobial properties, found in coconut oil and the blood of babies treated with coconut oil. They also tested how effective monolaurin is in countering bacterial diseases that can affect newborns, including the skin bacteria *Staphylococcus aureus*.



Billy Ellsworth has been part of Murdoch trials of a new treatment for Muscular Dystrophy and is pictured here at his high school graduation in 2019.



Professor Rhonda Marriott was inducted into the WA women's Hall of Fame in 2019.

MAJOR ANNOUNCEMENTS, AWARDS AND RECOGNITION

One of Western Australia's top Aboriginal health researchers, Professor Rhonda Marriott, was inducted into the WA Women's Hall of Fame in 2019. Professor Marriott has focused her research on helping Aboriginal families become healthier and more resilient.

Western Barley Genetics Alliance Director Professor Chengdao Li won the 2019 Australian Farmer of the Year Award for Excellence in Agricultural Research. Professor Li was responsible for mapping the barley genome and leading research that has improved barley yields and malt qualities. He has also created new acid soil-tolerant barley lines that are expected to add \$30 million to the Western Australian economy each year.



Professor Chengdao Li.

Distributed Energy Research (DER) trials in Carnarvon, a collaborative research project between Murdoch University and Horizon Power, won a joint silver award at the international Energy Smart Communities Initiative Awards. The DER project is investigating whether small energy networks powered by photovoltaic systems with battery backup are an economical and reliable way to deliver clean energy in small towns.

Murdoch women in STEM were recognised with Elaine Holmes, Professor of Computational Medicine and Premier's Fellow in Phenomics, named one of 20 winners at the Women in Tech [+] WA Awards. Another three Murdoch women – Associate Director in Digital Innovations Julie Whitlock, forensic scientist Dr Paola Magni and Nuclear Magnetic Resonance manager Dr Sam Lodge – were all nominated for the 2019 awards, which celebrate personal determination, technical strength and leadership skills.

Murdoch University, in collaboration with leading Western Australian institutions, is set to establish a world-class archival-quality digitisation centre thanks to a \$1.1 million Australian Research Council Linkage Infrastructure and Equipment grant. The WA Digitisation Centre will be the first facility of its kind in the State and will form a major piece of national research infrastructure. The Centre will have the capacity to digitise significant collections held by participating institutions, creating a valuable resource for researchers and future generations. Professor Helena Grehan and Associate Professor Michael Broderick are the project's Chief Investigators from Murdoch University.

Forensic Science lecturer Dr Paola Magni was the FameLab Australian national final winner and audience choice in 2019, winning her a spot at the UK final at the Cheltenham Science Festival. FameLab is the world's leading science communication competition to find and mentor young STEM researchers. Dr Magni's presentation focused on underwater crime investigation and how science can deconstruct events when evidence has literally washed away.

The 2019 Vice Chancellor's Awards for Excellence in Research went to Associate Professor Jeremiah Pfeiffer and Dr Rachel Standish (Outstanding Research Development), the Meat Science Group (Impact in Communities) and Professor Treena Burgess, Professor Helena Grehan and Professor John Howieson (Distinguished and Sustained Achievement).

Murdoch joined a major national consortium of industry, academic and government partners to supercharge Australia's battery industry. The Future Battery Industries Cooperative Research Centre received \$25 million from the Commonwealth and another \$6 million from the State Government to establish the CRC in Western Australia.

Professor Sandra Wilson, Murdoch University's Academic Chair of History, will lead research into perceptions of Japan's continuing guilt for atrocities committed during the Second World War. Professor Wilson secured a grant from the Australian Research Council for the research project, which will help inform Australian government policies on how best to devise effective and lasting reconciliation measures.

African animals benefit from Murdoch research into lung disease

A Murdoch research team is testing a non-invasive device that could make it easier to diagnose serious respiratory disease in African elephants, rhinos and buffalo, but also domestic animal species.

Dr Martina Mosing, an expert in veterinary anaesthesia, received a grant from the Morris Animal Foundation in 2019 to pursue her research and will travel to South Africa in 2020.

Respiratory disease is a major concern in horses and cows, with bovine respiratory disease the most common disease affecting Australian cattle.

In South Africa, wild animals are a huge reservoir for *Mycobacterium bovis*, which is the causative agent of lung tuberculosis (TB) in animals and humans.

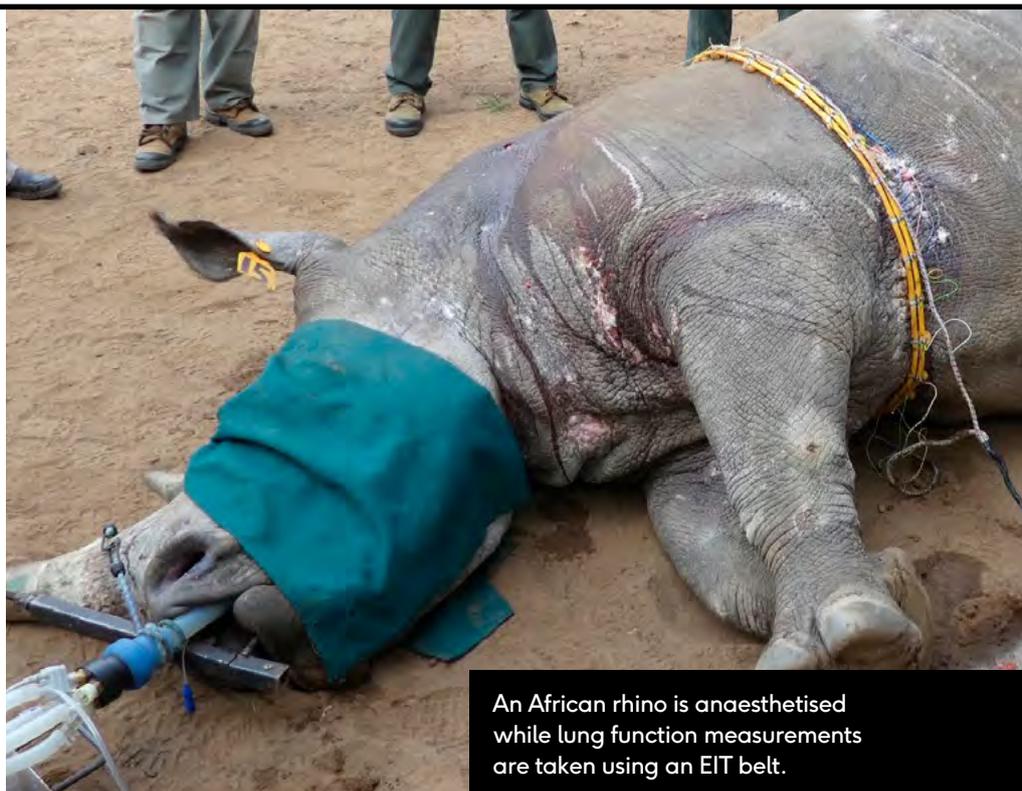
Diagnosis for TB however is costly and time consuming. Wild animals also need to be held after capture while test results are analysed, or released back into the wild and recaptured at a later date.

Dr Mosing is testing whether an Electrical Impedance Tomography device (EIT), which monitors an animal's breathing, can be used in detecting serious lung disease.

The EIT is a monitoring tool that provides an image of the lung and functional dynamics by simply placing a belt around the chest and applying a current that cannot be felt by the patient.

Image reconstruction software is used to display a video of the "lungs breathing". Using different algorithms, specific information can be gathered from the images. At Murdoch, several algorithms for different lung diseases and lung states are being developed and tested. One algorithm should make TB lesions visible on the screen.

"TB is a serious problem in African animals and as a contagious disease, poses risks for other animal species and humans. Having a completely non-invasive 'on-site' diagnostic tool will greatly enhance our ability to identify affected animals and control this disease," Dr Mosing said.



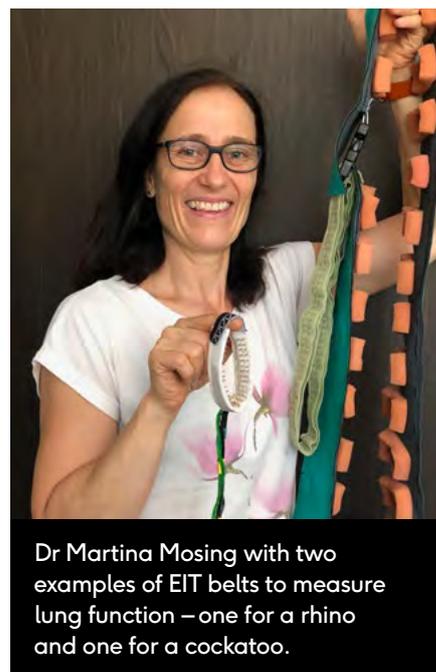
An African rhino is anaesthetised while lung function measurements are taken using an EIT belt.

"We have developed different EIT 'belts' that are fitted around animals from bird size up to elephants and can be used to monitor lung function. We use the elephants and buffaloes as our model to test the algorithm, which we developed together with our collaborators at international universities in Canada, Switzerland and Germany, to determine if there are any areas of poor function indicating TB lesions. This algorithm can then be used not only for other animal species but also for other respiratory diseases than TB."

During the course of her research, Dr Mosing and her team also discovered that during anaesthesia, the distribution of ventilation over the lung field in large animals like horses, cows and rhinos is highly dependent on the position the patient is in and can be influenced by different ventilatory interventions.

But this is not only true for anaesthetised animals. The team around Dr Mosing also developed a novel algorithm to diagnose equine asthma which is a huge problem in the horse industry. The EIT may have potential as a non-invasive diagnostic test directly on the race track.

"Additionally, the EIT lung function test potentially has wide application for Australia's billion-dollar cattle industry in early detection of respiratory disease and observing treatment success over time," she said.



Dr Martina Mosing with two examples of EIT belts to measure lung function – one for a rhino and one for a cockatoo.

In 2020 the EIT team will also work in applying the new technique in dogs and cats and even birds.

A range of animal science projects involving Murdoch researchers received support in 2019, including the Global Burden of Animal Diseases program funded by the Bill and Melinda Gates Foundation (Dr Mieghan Bruce), welfare issues in live cattle export (Dr Teresa Collins) and the health of Western Australia's iconic black cockatoo (Dr Kristin Warren).

Global
Outlook

“ With more than 80,000 Alumni around the globe, Murdoch graduates are equipped with sought-after critical thinking skills and knowledge that can help address some of the world’s biggest challenges. ”

...
Professor Lyn Karstardt, Deputy Vice Chancellor International

Murdoch's global objectives are based on our conviction that education is a force for good in a complex and increasingly divisive world.

With more than 80,000 Alumni around the globe, Murdoch graduates are equipped with sought-after critical thinking skills and knowledge that can help address some of the world's biggest challenges.

In 2019, Murdoch pursued sustainable levels of growth in international student numbers and with one of the lowest international onshore cohorts in the country, the University continues to see room for expansion in this area.

Our *Strategic Plan and Future Horizon 2017-2027* positions Murdoch as a significant provider of quality education to students throughout the Asia and Indo-Pacific region, which in turn underpins another key aspiration to serve society by contributing to economic and social wellbeing.

At Murdoch's Perth campus, international students are highly valued for their cultural diversity and global perspective. Of Murdoch's 25,426 strong student cohort in 2019, 24% were international offshore students and 16% international onshore.

Our Inbound Study Abroad and Exchange Program attracts students from all over the world. In 2019, for example, 122 students from Tokyo City University studied for a semester as part of their program.

Our international operations in Singapore, Dubai and Myanmar continue to be recognised for offering an outstanding educational experience.

Looking ahead, Murdoch continues to focus on diversifying our international student population, while also ensuring students have the infrastructure and support they need in order to achieve.

This includes access to social activities that celebrate cultural individuality whilst also embracing the pluralistic nature of campus life.

“Murdoch continues to focus on diversifying our international student population”

A global citizen leading change

International student Emmanuel Nene Dei is thinking big, hoping to harness his Murdoch education to lead change in the world and improve healthcare standards across Africa.

Emmanuel is a recipient of a prestigious Australia Awards Scholarship, offered to the next generation of global leaders to pursue study, research or professional development in Australia.

The awards are a cornerstone of the Australian Government's development assistance program.

Emmanuel arrived in Perth from Ghana in January 2019 after choosing Murdoch University to further his studies. At home, he worked in research, planning and data for the National Blood Service of Ghana.

“My passion for healthcare came from working in the healthcare setting and seeing all the challenges that patients

face accessing and navigating the healthcare sector in my country. I want to lend my knowledge and skills to improve health service delivery and help make a difference in the lives of people,” he said.

“Murdoch was the only university in Australia which was offering my aspirations and interests in one course – the Master of Health Administration, Policy and Leadership. The leadership aspect attracted me because I want to be a global citizen leading change.

“I want to make an impact in health service delivery in Ghana and across Africa. I want to gain the necessary leadership skills needed to transform the health industry, improve the health of humanity and provide universal health coverage for all, especially marginalised populations.”

Emmanuel said Murdoch's “free thinking” ethos had empowered him to face his fears and realise his potential whilst also gaining in-depth knowledge and skills relevant to the real world.



International student
Emmanuel Nene Dei.



MURDOCH SINGAPORE

Singapore is a global hub for education and innovation and Murdoch is a well-established and sought-after tertiary education provider.

Murdoch Singapore has the largest student cohort of any Australian university in Singapore.

With 5,548 students enrolled in 2019, Murdoch Singapore has the largest student cohort of any Australian university in Singapore.

Our Singapore operation enjoyed a busy and productive year, with an emphasis on new courses, employability, research and marketing initiatives.

To mark the country's Bicentennial Year, and the historic importance of the Singapore River, Murdoch Singapore hosted the River of Knowledge Research Seminar Series, featuring presentations from Murdoch's research institutes and centres.

The lecture series showcased our very best leading-edge research to diverse Singaporean audiences.

Murdoch Singapore also launched new Double Masters degrees and an undergraduate major in Criminology. Both were well received, with the Criminology major attracting 107 commencing students.

In partnership with education partner Kaplan, Murdoch Singapore launched a new centre called Murdoch EDGE (Entrepreneurship Development and Graduate Employability).

Murdoch EDGE is a unique offering to students and a point of difference in the region. It occupies a prime space within the Singapore operation, providing a range of services to Murdoch students and graduates to improve their employability or help develop their business ideas.

Again with Kaplan in 2019, Murdoch deployed novel marketing initiatives, including outdoor video advertising and a branded truck to facilitate a mobile promotion of Murdoch courses throughout Singapore.

Chancellor Gary Smith and Vice Chancellor Professor Eeva Leinonen also attended graduations and awards ceremonies at Murdoch Singapore, while Singapore Dean Professor Peter Waring was appointed to the new position of Pro Vice Chancellor (Transnational) to provide more holistic oversight of Murdoch's transnational education locations – as well as assessing new opportunities within the region.

“Real world” learning opens doors for Singapore student

A new career and skills for life: university education has delivered both for Murdoch Singapore Valedictorian Yen Shen Ho.

The now 27-year-old had spent three years working in hospitality in Macau and Malaysia before making the decision to pursue a Bachelor of Business in Accounting and Finance at the Singapore campus.

Yen Shen chose Murdoch Singapore for three reasons: its excellent academic reputation, well-qualified teachers with “real world” experience, and flexible study program.

An outstanding student, during 2019 Yen Shen both graduated with her double degree and was accorded the honour of giving the Valedictorian speech. Just two months after graduation, she was employed by an audit firm in Singapore.

“The experience with Murdoch Singapore was great and unforgettable,” she said.

“During the course of study, I encountered some challenges understanding some accounting standards and principles but under the guidance and support from a group of approachable lecturers, I achieved academic success.”

Murdoch staff were also not solely focused on academic progress. Supporting the development of “soft skills” important in the workforce – and life generally – was also a priority.



Murdoch Singapore student Yen Shen Ho at the podium after being named a Valedictorian in 2019.

Yen Shen said: “Previously my public speaking skills were quite bad and I was afraid of giving a speech in front of a crowd. Singapore Dean Professor Peter Waring shared some public speaking techniques with me that helped to improve my skills and eventually I managed to overcome my fear to speak in public.

“Blended learning also helped to improve my self-discipline and time management skills. My journey with Murdoch Singapore has taught me life lessons and helped me grow as a person.”

MURDOCH DUBAI

At Murdoch Dubai, planning was carried out throughout the year to prepare for a move in 2020 from the Academic City location to Knowledge Park.

The new premises will almost double the available space for students and staff. These expanded and upgraded facilities will greatly improve the student experience and enable further growth in our course offerings and student numbers, which stood at 500 in 2019.

Murdoch Dubai also began a new partnership with highly-regarded global education provider Navitas in 2019, offering courses in business, media, communications, IT, psychology and education.

With an expanded course portfolio and the global reach of Navitas, the University expects to provide the same high-quality Australian education to many more students in Dubai while embracing students from the Middle East, Africa and the subcontinent.

Information technology and business remain the most popular courses at the Dubai operation and students are being attracted to it from outside the UAE, including Africa and the Indian sub-continent.

Again in 2019, the Dubai operation hosted its first-ever international research conference, the International Research Symposium in Services Management 10.

Participants in the symposium came from 21 different countries, including two staff members from Murdoch Singapore. This conference formed part of a broader push to develop the research capabilities and outputs of Murdoch Dubai.

A student team, Abayaah represented Murdoch Dubai at the University's Think Big finals in Perth. Think Big is Murdoch's entrepreneur competition – a structured program that runs across the Perth campus and Singapore and Dubai operations. Abayaah – an e-commerce start-up that allows Arab women to tailor and personalise their abayaas (long cloaks) – was selected as the winning team against competition from Perth and Singapore.

In October, Chancellor Gary Smith and Vice Chancellor Eeva Leinonen attended graduation and awards ceremonies in Dubai.



MURDOCH MYANMAR

One year after its opening, University representatives, and Alumni from Perth, Singapore and Malaysia, gathered in Myanmar to acknowledge the new education provision in association with Kaplan and to discuss further opportunities for students in the region.

In 2018, Murdoch University became the first Australian university to deliver courses in the country's largest city of Yangon, offering Master of Business Administration (MBA) and Graduate Certificate of Business Administration qualifications.

The first group of MBA students are set to graduate in the second half of 2020 and will attend graduation ceremonies in Perth.

With a population of 55 million, of which almost half are under the age of 25, Myanmar is undergoing rapid development. Murdoch believes improved access to higher education will support the transformation and democratisation of this developing country.



International artist Daan Roosegaarde.

2019 GLOBAL HIGHLIGHTS

Papua New Guinea Prime Minister James Marape and other dignitaries visited Murdoch's Perth campus to tour our world-class agricultural and veterinary facilities and hear about projects that are improving agricultural productivity, such as better use of feed and techniques for livestock management. Agriculture, livestock and horticulture represent significant economic potential for Papua New Guinea and the government is interested in establishing partnerships with institutions like Murdoch.

During Africa Week, Professor Tawana Kupe, Vice Chancellor of the University of Pretoria, toured the Murdoch campus and a memorandum of understanding is expected to be signed between the two universities in 2020.

Murdoch welcomed acclaimed Dutch artist Daan Roosegaarde as our first International Creative Visitor. He delivered a lecture on the role of social designs that explore the relationship between people, technology and environmental space.

A range of initiatives were undertaken with Chinese academic partners in 2019. Murdoch established the Australia-China Joint Institute of Agricultural and Environmental Health with the Qingdao Agricultural University. Murdoch and Qingdao are collaborating on seven areas of research. A large delegation of researchers from the Qingdao Agricultural University – including President Song Xiyun – also travelled to the Perth campus in September for a three-day visit, workshops and meetings.

Murdoch was the first Australian university to sign up to UN Sustainable Development Goals. The goals aim to end extreme poverty, promote prosperity and wellbeing, protect the environment, address climate change and encourage good governance, peace and security. The UN goals reflect the priorities of Murdoch as an institution.



HIGHLIGHTS

The background of the page is a brick wall. The bricks are painted in a pattern of blue and white. There are large, stylized blue geometric shapes, possibly triangles or diamonds, overlaid on the wall. A single yellow circle is also visible on the wall.

Physical
and Digital
Environment

“ During 2019, our
commitment to
activating new
teaching spaces
and offering
innovative ways
of learning was
further enhanced.”

...
Darren McKee, Chief Operating Officer

Artist credit: Darren Hutchens – Untitled (detail).

2019

was a ground-breaking year for Murdoch University with the opening of the Australian National Phenome Centre, activation of a new CBD space, and the rapid advancement of a once-in-generation infrastructure program to enrich Murdoch's teaching, learning and research environments.

The Physical and Digital Environment is an important pillar of Murdoch's *Strategic Plan and Future Horizon 2017-2027* and underpins key goals to strengthen excellence in teaching and research.

The Capital Development Program also ensures Murdoch is working to provide state-of-the-art infrastructure that supports 21st century teaching and learning, enhances the student experience, supports staff and continually improves digital technology.

During 2019, the University's commitment to activating new teaching spaces and offering innovative ways of learning was also further enhanced.

A demonstration of this was the opening of a new space in the Perth CBD and plans for a new vertical campus, allowing the University to create new partnerships with industry and government in the city, just as we are creating partnerships in the medical research fields in the Murdoch Knowledge and Health Precinct.

Murdoch also actively seeks the wisdom and guidance from a panel of indigenous elders to guide, inform and shape a range of activities across the University, including new infrastructure developments and land management.

Harry Butler Institute Environmental Education Centre.



Murdoch's first student-focused mobile app was launched in 2019.





New Academic Building artists impression.

NEW ACADEMIC BUILDING

Planning for the New Academic Building (NAB) reached an advanced stage during 2019, with design development completed in December.

Due to the size and scope of the project, expressions of interest for early contractor involvement were issued, with Lendlease and Multiplex selected to provide initial consultancy advice.

Construction of the NAB—a multiple-use, flexible teaching environment - is expected to begin in mid-2020 and open in 2022. It is projected to increase the University's teaching capacity by up to 60% to meet current and projected future growth.

At four-storeys high and 16,000sqm, the NAB will also be the largest mass engineered timber building yet constructed in Western Australia, with most of the structure above ground built, wherever possible, from timber.

The building, which is positioned immediately south of the Geoffrey Bolton Library, will feature spectacular views to the Darling Range east of Perth.

Murdoch's strong commitment to environmental sustainability and the health and wellbeing of staff and students is reflected in the choice of build materials, and it will be engineered to achieve a 6-star green energy rating.

In addition to the structure itself, the air-conditioning will be distributed through an under-floor ducted network to achieve the most efficient and sustainable performance outcome. A 460 kW PVC solar system will also be installed on the roof and connected to the future Murdoch District Energy Plan.

The adjacent Banksia Court area will be carefully protected throughout construction as it houses the University's largest population of native quendas.

The building design itself references a creative warehouse.

Inside, the building will offer an ultramodern teaching and learning experience with digitally-enhanced learning spaces and "flexilabs" that will allow academics to teach from the floor and in a completely new way—rather than in the traditional "lecture theatre" style.



MURDOCH IN THE PERTH CBD

The University launched a new CBD teaching and events space in October to facilitate stronger connections with industry, government and business; offer alternative learning opportunities; and foster innovation through new activations and learning experiences.

Located at 32 St Georges Terrace, opposite Government House, the space features seminar, teaching and modern learning areas, hot desks and offices that allow Murdoch staff, students and alumni to engage in an open and innovative way.

Soon after the opening, the University advertised for expressions of interest to develop a new vertical campus in the CBD to enhance Murdoch's appeal to domestic and international students.

The city campus will assist Murdoch in developing new growth opportunities, attract more students from Perth's northern and eastern corridors, and foster new partnerships with industry and government in the city.

The University was also involved in discussions with all levels of government about City Deal funding opportunities.

RENEWABLE ENERGY PROJECT

In November 2019, the University called for expressions of interest to develop a major on-campus District Energy Project.

The project will provide sustainable campus-wide energy production, with solar PVC panels installed across the roof space of buildings at South St and construction of a 1000-bay solar car park—generating 5.7 MW.

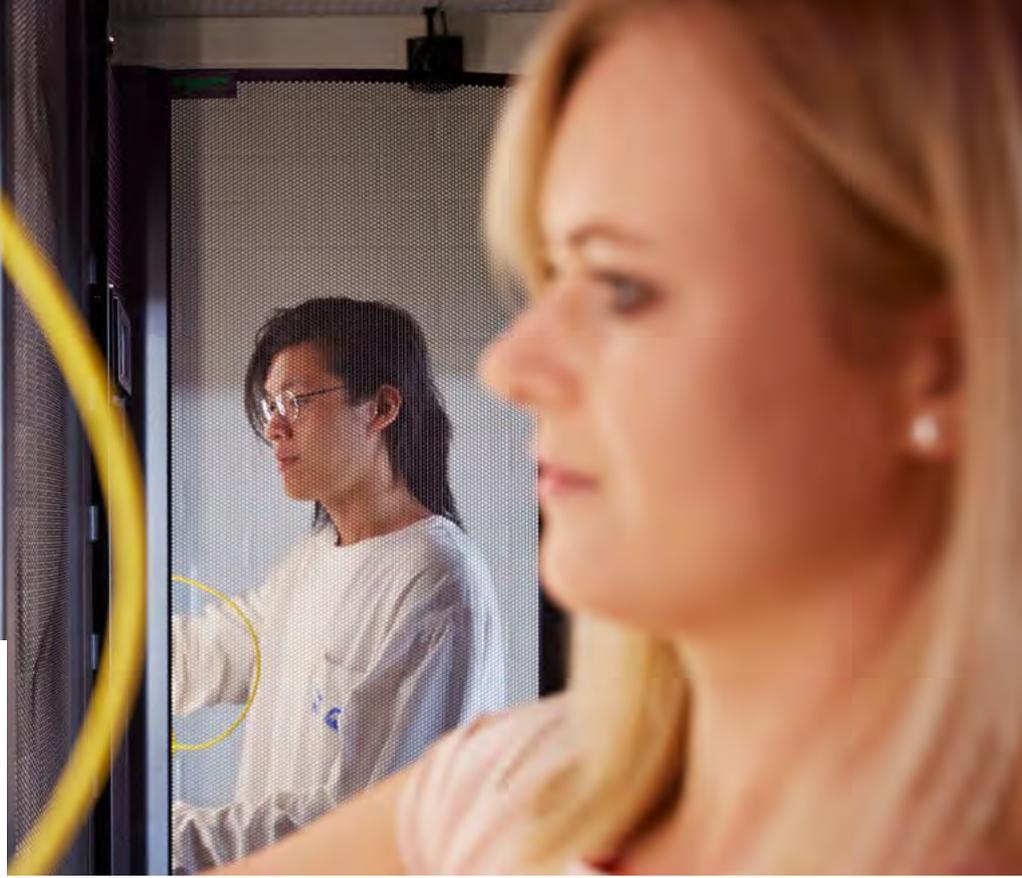
The University also announced that the investment in renewable energy systems would be backed by plans to create a research centre of excellence in energy distribution and storage, incorporating blockchain technologies.

The four-stage project will ultimately see Murdoch create a living laboratory of various renewable technologies, including different types of energy storage and incorporate studies on the optimisation of a behind-the-meter microgrid.

The Expressions of Interest process will locate a suitable industry partner to provide infrastructure backing and support the research, learning and industry opportunities within the project.

Vice Chancellor Eeva Leinonen in the new CBD space.





OTHER INFRASTRUCTURE PROGRAMS

During 2019, the University developed a detailed three-year program to revive science teaching laboratories in the Academic Core - enabling flexible environments and collaborative teaching and learning at the forefront of education practice.

Works in 2020 include the creation of large flat floor format wet laboratories with capacity for over 100 students. The creation of a flexible wet laboratory will allow the University to trial new teaching styles, which will then help guide development of the large flat floor laboratory within the New Academic Building.

Also in the year, work was completed to reconfigure the upper levels of the Geoffrey Bolton Library, and planning undertaken to revitalise the former Murdoch College with a small Student Hub slated to open in Semester 1, 2020. The new hub will provide better facilities and support for staff and students at the east end of the campus.

STAFF INTRANET

Launched in October, the new staff intranet provides an engaging one-stop-shop for staff to better access University news, events, key information and access to resources and tools. As an integral part of the University's Strategic Plan, the intranet provides a new platform for staff to collaborate, learn, work and engage with colleagues.

STUDENT PORTAL AND APP

At the start of second semester 2019, a new student mobile app and web portal named MyMurdoch was launched as part of our digital transformation program. The portal gives students greatly improved access to their student life online providing a one-stop-shop for all their needs and is Murdoch's first student focused mobile app.

Students receive personalised views and content according to campus, study level, student cohort and it provides portable access to course information, personalised calendar, career listings, notifications, advice for studying and health/wellness support. The new portal was welcomed enthusiastically by the student body, with over 21,000 unique app users registered after four weeks, representing approximately 90% of Murdoch's student population.

TOP HONOUR

In 2019, CIO Australia magazine recognised Michael Grant, Murdoch's Deputy Chief Operating Officer and Director of Information Technology Services, as one of Australia's Top 50 Technology and Digital Chiefs. The CIO50 2019 Awards identifies executives who have implemented real technology-driven innovations that change the way their organisations

“With the MyMurdoch student portal we believe that puzzle is now complete. It is easier to use, aesthetically pleasing and has all the relevant information a student needs in one place.”

Kombo Mashumba, Student Guild President

operate. As part of a \$70 million five-year technology and digital transformation program, Mr Grant and his team have delivered numerous technology initiatives to enhance staff and student technology experiences as well as numerous organisational benefits. These benefits include improved technology enabled business processes, moving on-premise infrastructure to the cloud, upgraded and more secure identity management and rollout of Office 365 and Windows 10.

Intricate ANPC construction and fit-out a first for Australia

The Australian National Phenome Centre opened in 2019 and is fitted with a large number of Nuclear Magnetic Resonance (NMRs) and mass spectrometers, demanding a bespoke approach to construction and fit-out.

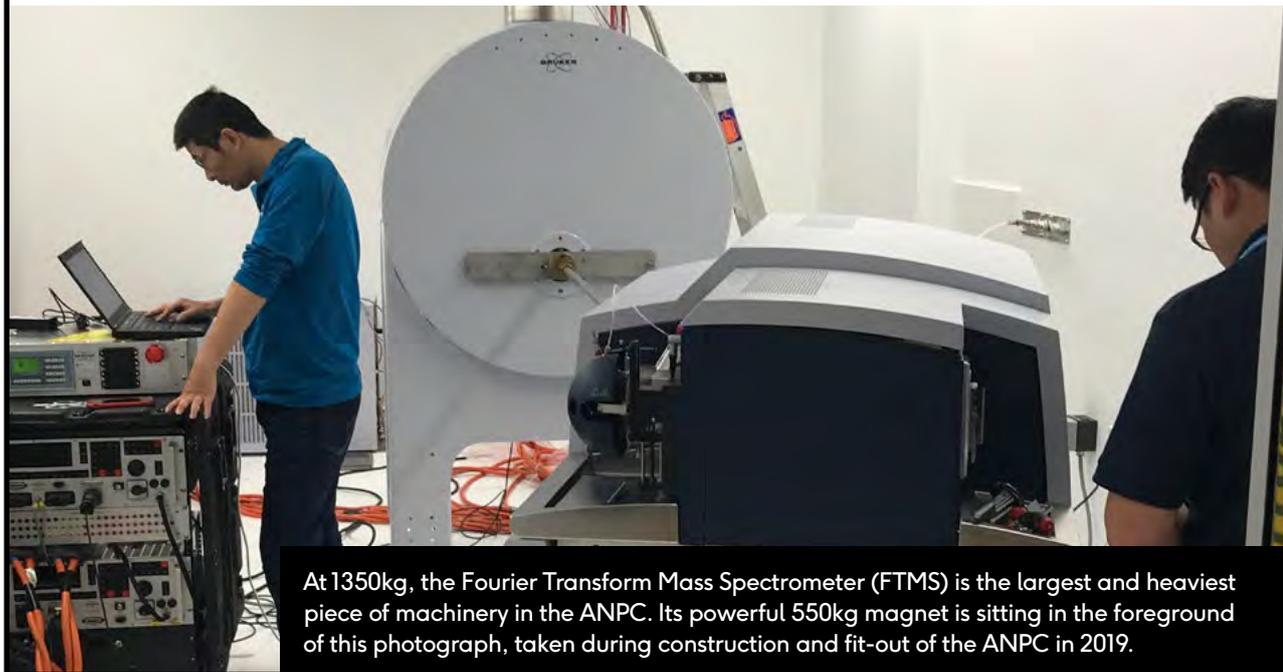
With more than 18 tonnes of expensive German-made machines and laboratory equipment on-site, the ANPC's home at the Harry Perkins Institute of Medical Research (South) required a complete overhaul, with tier one construction company Multiplex commissioned to oversee the build.

Before any of the mass spectrometers could be installed, an engineering assessment of the floor was carried out to ensure it could take their weight. In one room alone, 10 spectrometers are located, while another room has eight. Five NMRs are also grouped together in a specialist part of the laboratory, creating a high point load.

The ceiling heights were also raised to accommodate some of the taller machines and new air-conditioning installed to ensure laboratory temperatures remain within +/- 0.5° of 22° Celsius at all times.

A new nitrogen generation system for the maintenance of specialised equipment was piped through the core of the slab and an Uninterrupted Power Supply (UPS) emergency power system separate to the Harry Perkins Institute back-up generators was installed to ensure the power supply could not be interrupted without a proper shut-down of equipment. Ten minutes of uninterrupted power was installed to ensure sensitive data could not be lost in the event of a building-wide power failure.

Unique to the ANPC, all cords, wiring and vacuum pumps were funnelled into a purpose-built insulated service spine to reduce machine noise and improve the working environment for staff.



At 1350kg, the Fourier Transform Mass Spectrometer (FTMS) is the largest and heaviest piece of machinery in the ANPC. Its powerful 550kg magnet is sitting in the foreground of this photograph, taken during construction and fit-out of the ANPC in 2019.



SOUTH METROPOLITAN CROP RESEARCH HUB (SMCRH)

Work to develop a southern grains hub to help boost crop productivity and reduce the impact of disease commenced in June 2019, and is slated for completion in March 2020.

The project is located off Campus Drive South and involves construction of glasshouses, irrigated and netted field plots, and water and power service connection.

The SMCRH is a collaboration between Murdoch, Curtin University and the Department of Primary Industries and Regional Development, with funding support from Grains Research and Development. It will draw in specialist research skills from all teams to develop new research in crop pathology, plant physiology and genetic improvement.

KNOWLEDGE AND HEALTH PRECINCT: THE GATEWAY PROJECT

Murdoch University is working purposefully toward the creation of a new Knowledge and Health Precinct that will integrate with surrounding infrastructure to create a major new research and industry innovation hub in Perth's south.

In October, the University announced a significant land acquisition adjacent to Fiona Stanley Hospital and St John of God Murdoch.

This land will be used to develop Murdoch University's "Gateway" building project. The Gateway project will contribute to the State Government's vision for the area under its Murdoch Activity Centre plan. This plan identifies Murdoch as a strategic priority area for development by the State Government.

The Gateway project will be a new state-of-the-art facility to position Murdoch at the forefront of health and medical research and teaching in Western Australia.

Construction of the new building is expected to start in 2021, with more than 600 permanent staff based at the new facility upon completion.

The Gateway building is expected to house stage two of the Australian National Phenome Centre, research laboratories and allied health clinical placements, among other related uses. It will help transform the way health care is delivered by co-locating researchers, academics, students, industry and clinicians in one state-of-the-art medical precinct.

The Murdoch Activity Centre is projected to become the largest employment hub outside the Perth CBD, supporting an estimated 35,000 jobs, 22,000 residents and 44,000 students.





Donors and
Sponsors

Thank you to
our donors and
supporters.

Artist credit: Freda Warlapinni – Pwoja-Pukumani (detail).

Murdoch University acknowledges the valued contributions of donors and supporters, whose partnership makes a real difference to our advancement mission and values. Further, we recognise our benefactors who preferred to remain anonymous and the few who previously provided funds to be held in perpetuity.

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Estate of Margaret Harrison
Estate of Jon Rock
Estate of Lavinia Sinclair
Estate of Richard G Walton

Our Structure

Artist credit: Marion Borgelt – Liquid Light (detail).

GOVERNANCE STRUCTURE

Under the Murdoch University Act 1973, the governing body of the University is the Senate. Senate is ultimately responsible for all University affairs - approving the Strategic Plan; overseeing policy and procedures; and guiding programs and activities. To assist in the effective governance of the University, Senate has established four committees:

1. The Audit and Risk Committee helps Senate meet its governance, risk and compliance oversight responsibilities.
2. The Chancellor's and Nominations Committee advises on governance issues, determines remuneration for Senior Officers and reviews the performance and succession plans for Vice Chancellors and Senior Officers. This committee also recommends the appointment of suitable Senate members.
3. The Honorary Awards and Ceremonial Committee awards honorary degrees and Senate medals and oversees guidelines and policies relating to honorary degrees, Senate medals, graduation ceremonies and regalia.
4. The Resource Committee advises on a wide range of governance issues including financial control and sustainability, investment capability, campus development, commercial activities, oversight of the University's subsidiary entities, the finances of the Guild of Students (in an advisory capacity), and other relevant matters.

The Senate elects the Chancellor and appoints the Vice Chancellor, who in turn become Senate members. Mr David Flanagan stepped down as Chancellor in 2019 after two successful terms and business and community leader Mr Gary Smith was appointed to the role of Chancellor in August, with his formal Investiture taking place on November 14. Professor Eeva Leinonen has been Vice Chancellor of the University since April, 2016.

Under the organisational structure of Murdoch University, the Vice Chancellor is chief executive officer and academic principal. The Vice Chancellor is also tasked with the leadership and development of the University and achievement of its Strategic Plan.

Senate has adopted the Voluntary Code of Best Practice for the Governance of Australian Universities as a best practice governance benchmark. Under the Voluntary Code, the University is required to disclose in its Annual Report whether or not it complies. During 2019, the University materially complied with the protocols contained in the Voluntary Code. The reporting regime for the University's subsidiary companies is under review.

ACADEMIC COUNCIL

Academic Council is the senior decision-making body on academic matters, academic policies and the approval of academic offerings within the University, as set out in Section 21 of the *Murdoch University Act 1973*. Professor Parisa A. Bahri is the current President of Academic Council, with her term expiring on December 31, 2020. The President of Academic Council is an ex-officio member of the University's Senate.

Academic Council plays an integral role in shaping and managing the academic environment as Murdoch University implements, develops and continually improves its academic offerings in line with its Strategic Plan.

An external, independent Review of Academic Council and its Subordinate Committees was commenced in November 2019, under the authority of Senate. The review consists of six phases: commencement, self-review, the reviewer's on-site activities, the reviewer's report, the University's formal response, and the implementation of an action plan. The action plan details how the University will implement each accepted recommendation, measurable outcomes (or indicators of success) and deadlines for implementation. The President of Academic Council will provide a status report outlining tracking against the action plan to each meeting of the Academic Council until all actions are complete.

RISK MANAGEMENT

The Senate, in accordance with its Statement of Governance Principles, has responsibility for setting the risk management policy and critically monitoring the management of risks across the University, including commercial undertakings. The Senate has approved Terms of Reference for the Audit and Risk Committee, which requires the Committee to confirm that the University's Risk Management Framework is appropriate.

Every quarter, the Audit and Risk Committee receives internal audit reports and other relevant reports as well as updates from the Audit and Risk Management Office and management, which address significant risks to the University and systems of internal control. The Audit and Risk Committee submits its minutes to Senate for oversight, and produces an annual report which covers risk, internal controls and audit matters. The Chair of the Audit and Risk Committee provides a report at each Senate meeting.

RISK MANAGEMENT POLICY AND FRAMEWORK

The University's Risk Management Policy outlines the approach to identification, management and reporting of risks and specifies formal roles and responsibilities for these activities, aligned with contemporary best practice.

The University's Risk Management Framework underpins the continued rollout of good practice risk management aligned with AS/NZS ISO 31000:2009 Risk Management – Principles and Guidelines.

A Risk Management Advisory Group, chaired by the Chief Operating Officer, is in place and has the primary role of providing advice to the Vice Chancellor on the University's risk management strategy, framework, policy and operations.

RISK APPETITE STATEMENT

The University's Risk Appetite Statements, approved by the Senate in 2018, are aligned to the core Goals, Lenses and Pillars outlined in the University's *Strategic Plan 2017-2027*. The purpose of Risk Appetite Statements is to articulate what the University is willing to – or not willing to accept – in the achievement of the Strategic Plan.

STRATEGIC AND OPERATIONAL RISK MANAGEMENT

The University's Strategic Risk Register aligns with the *Strategic Plan 2017-2027* and is reviewed and updated annually. The register highlights the key strategic risks facing the University, which are actively managed through a suite of actual and planned mitigation controls. Operational Risk registers are also in place across all areas of the University.

FRAUD, CORRUPTION AND MISCONDUCT CONTROL FRAMEWORK

The University has a Fraud, Corruption and Misconduct Control Framework that includes:

1. A Fraud, Corruption and Misconduct Policy.
2. A Fraud and Corruption Control Plan.
3. Conflict of Interest Policy.
4. Public Interest Disclosure Policy and Procedures.

The Fraud, Corruption and Misconduct Framework represents the commitment of the University to ensure that effective controls and practices are in place to mitigate fraud, corruption and misconduct-related risks.

UNIVERSITY CONTINUITY

The University Continuity Strategy, University Continuity Guidelines and Critical Incident Management Plan are designed to provide oversight and guidance in the event of an incident or issue that could affect the operations of the University.

A Critical Incident Management Advisory Committee is in place to ensure the effective implementation of critical incident and University continuity management strategies at the University. The Committee is responsible for overseeing the development and implementation of the University's Critical Incident Management Plan.

COMPLIANCE MANAGEMENT FRAMEWORK

The Compliance Management Policy outlines the University's approach to compliance management, enabling it to meet compliance objectives. The Compliance Management Framework supports the identification and management of the University's compliance obligations.

The University's approach to compliance management is aligned to AS/NZS ISO 19600:2015 Compliance Management Systems – Guidelines.

SENATE MEMBER TERMS 2019

Senate Member	Basis of Appointment	Term	Term of Office
1. Agrawal, Mr Abhinav (Abby)	Elected from and by the graduates of the University, section 12(1)(f)	1	01 January 2019 – 31 December 2021
2. Bahri, Professor Parisa Arabzadeh	Ex-officio, as President Academic Council, section 12(1)(i)	1	18 October 2018 – current
3. Belford, Mr Roland	Elected from and by the graduates of the University, section 12(1)(f)	1	01 January 2018 – 31 December 2020
4. Buckingham, Mr Gavin	Co-opted by Senate, section 12(1)(h)	1	18 August 2017 – 17 August 2020
5. Burges, Ms Ricky	Co-opted by Senate, section 12(1)(g)* Co-opted by Senate, section 12(1)(h)	1	11 March 2015 – 01 January 2017
			02 January 2017 – 10 March 2018
		2	11 March 2018 – 10 March 2021
6. Flanagan, Mr David	Ex-officio, as Chancellor, section 12(1)(a)	1	08 August 2013 – 07 August 2016
		2	08 August 2016 – 07 August 2019
7. Hayward, Adjunct Professor Colleen	Co-opted by Senate, section 12(1)(h)	1	01 June 2019 – 31 May 2022
8. Holt, Mr Ross	Appointed by the Governor, section 12(1)(f)* Co-opted by Senate, section 12(1)(h)	1	10 June 2014 – 01 January 2017
			02 January 2017 – 09 June 2017
		2	10 June 2017 – 09 June 2020
9. Hughes, Mr Ross	Co-opted by Senate, section 12(1)(h)	1	02 September 2017 – 01 September 2020
10. Kelly, Mr Glen	Co-opted by Senate, section 12(1)(g)* Co-opted by Senate, section 12(1)(h)	1	24 May 2015 – 01 January 2017
			02 January 2017 – 23 May 2018
		2	24 May 2018 – 31 May 2019 (resigned)
11. Kerr, Mr Peter	Appointed by the Governor, section 12(1)(f)* Appointed by the Governor, section 12(1)(g)	1	22 December 2015 – 01 January 2017
			02 January 2017 – 21 December 2018
		2	22 December 2018 – 21 December 2021
12. Leinonen, Professor Eeva	Ex-officio, as Vice Chancellor, section 12(1)(a)* Ex-officio, as Vice Chancellor, section 12(1)(b)		04 April 2016 – 01 January 2017
			02 January 2017 – current
13. Mashumba, Mr Kombo	Elected from and by the undergraduate students, section 12(1)(e)(i)	1	01 January 2019 – 31 December 2019
14. McLure, Hon Carmel	Appointed by the Governor, section 12(1)(g)	1	30 April 2019 – 29 April 2022
15. Schroeder-Turk, Associate Professor Gerd	Elected from and by the Academic Staff 12(1)(c)	1	12 March 2018 – 11 March 2021
16. Smith, Mr Gary	Ex-officio, as Chancellor, section 12(1)(a)	1	08 August 2019 – 07 August 2022
17. Subramanian, Mr Deenegan	Elected from and by the postgraduate students, section 12(1)(e)(ii)	1	01 January 2019 – 31 December 2019
18. Tomkinson, Rebecca Ms	Appointed by the Governor, section 12(1)(g)	1	20 November 2018 – 19 November 2021
19. Whitlock, Ms Julie	Elected by Non-academic staff, section 12(1)(d)	1	09 April 2018 – 08 April 2021

*As per section 37. Transitional provisions (Senate) for Universities Legislation Amendment Act 2016 as at 02 Jan 2017 (Murdoch University Act 1973)

SENATE MEETING INFORMATION 2019

These meetings do NOT include decisions by circular resolution				Senate		Audit & Risk Committee		Chancellor's & Nominations Committee		Honorary Awards & Ceremonial Committee		Resources Committee		
				A	B	A	B	A	B	A	B	A	B	
Agrawal, Mr Abhinav (Abby)			HAAC	7	7					0	0			
Bahri, Professor Parisa Arabzadeh (A.)				7	5									
Belford, Mr Roland				7	7									
Buckingham, Mr Gavin	ARC	CNC		RC	7	6	5	5	7	6		5	5	
Burges, Ms Ricky	ARC	CNC			7	5 [#]	5	2	7	6				
* Edwards, John	ARC						4	3						
Flanagan, Mr David		CNC	HAAC		4	4			3	3	0	0		
Hayward, Colleen Adjunct Professor					5	3 [#]								
* Hillbeck, Andrew	ARC						5	5						
* Heng, Tamara				RC								5	5	
Holt, Mr Ross		CNC	HAAC	RC	7	7			7	7	0	0	5	4 [^]
Hughes, Mr Ross		CNC		RC	7	7			7	7		5	5	
Kelly, Mr Glen					2	2								
Kerr, Mr Peter		CNC		RC	7	6			7	4		5	5	
Leinonen, Professor Eeva			HAAC	RC	7	7					0	0	5	4
Mashumba, Mr Kombo					7	6								
McLure, Hon Carmel					6	6								
Schroeder-Turk, Associate Professor Gerd			HAAC		7	6					0	0		
Smith, Mr Gary		CNC	HAAC		3	3			4	4	0	0		
Subramanian, Mr Deneegan					7	5								
Tomkinson, Ms Rebecca					7	6								
* Van, Rod				RC								5	4	
Whitlock, Ms Julie			HAAC		7	7					0	0		

* = External Member of Senate Sub-Committee

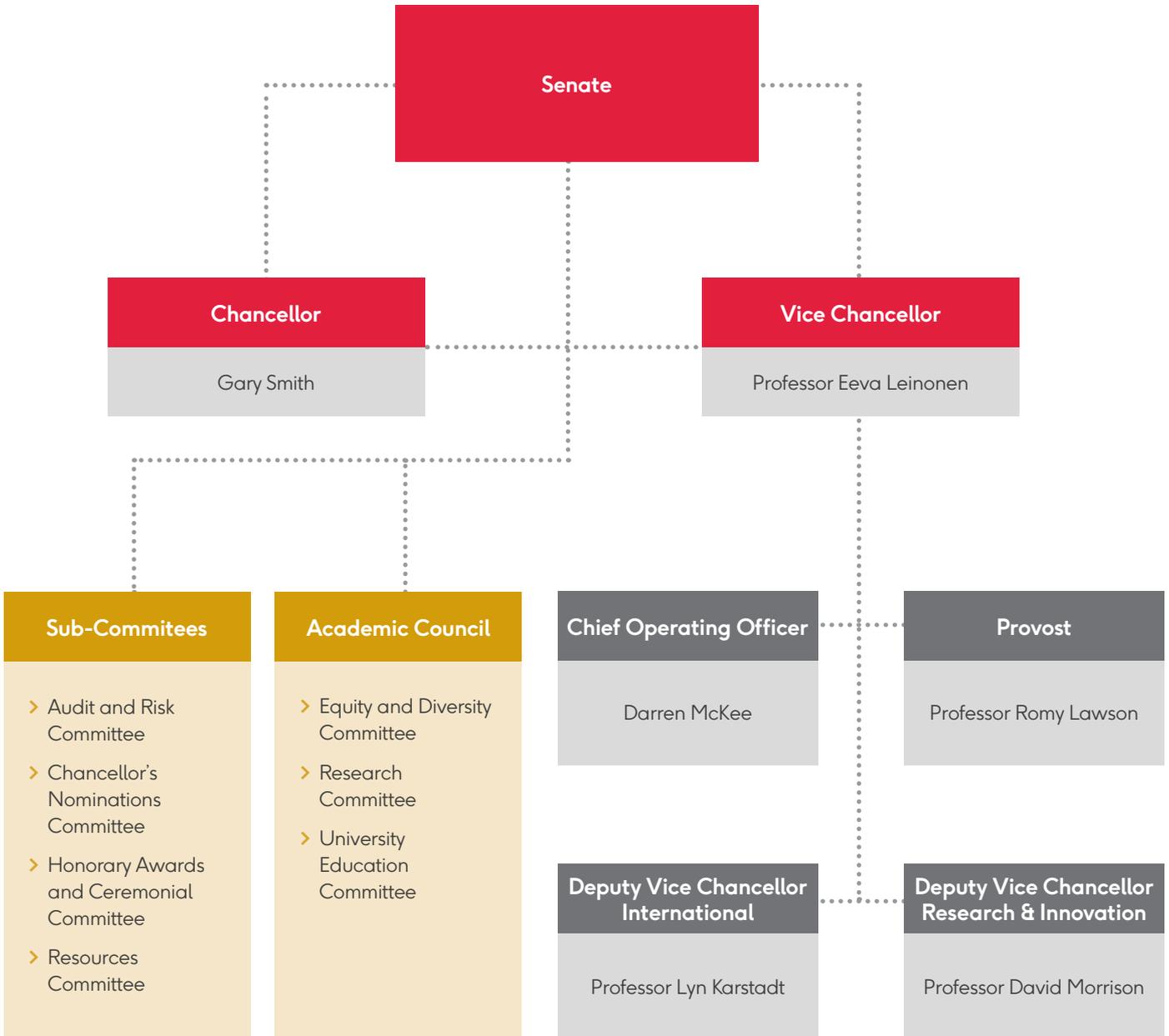
A = Number of meetings held during the time the member held office or was a member of the committee during the year

B = Number of meetings attended

= Leave of absence granted

[^] = One meeting was held in two parts on different dates. Part 1 on 27 November 2019 and Part 2 on 12 December 2019. Member absent for Part 1 only.

UNIVERSITY
GOVERNANCE
AND MANAGEMENT

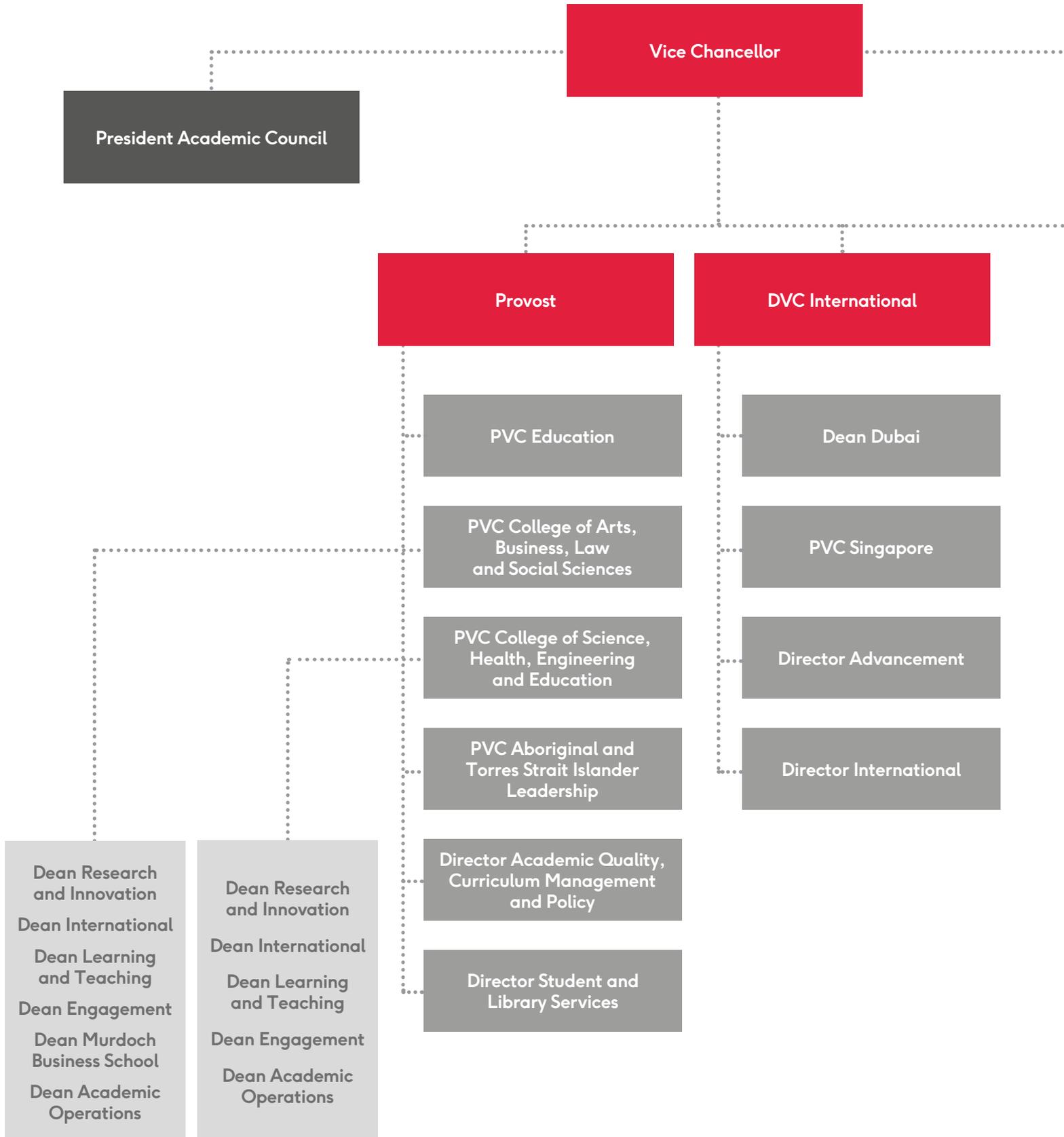




Murdoch University Senate 2019.

ORGANISATIONAL STRUCTURE

The University has adopted a new two-College structure.



DVC Research and Innovation

Chief of Staff

Chief Operating Officer

PVC Research and Innovation

Associate Director Strategy, Quality and Analytics

Chief Financial Officer

Dean of Graduate Studies

Director Audit and Risk Management

PVC Food Futures Institute

Director Property and Commercial Services

PVC Harry Butler Institute

Director People and Culture

PVC Health Futures Institute

University Secretary

Director of Laboratory Services

Director Marketing and Communications

Director IT Services

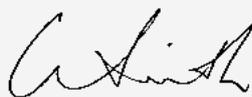
Disclosure and Legal Compliance

Certification of financial statements

The accompanying financial statements of Murdoch University and the accompanying consolidated financial statements have been prepared in compliance with the provisions of the Financial Management Act 2006 from proper accounts and records to present fairly the financial transactions for the financial year ended 31 December 2019 and the financial position as at 31 December 2019.

At the date of signing:

- there are reasonable grounds to believe that Murdoch University is able to pay all of its debts, as and when they become due and payable,
- the financial statements and notes satisfy the requirements of the Australian Charities and Not-for-profits Commission Act 2012, and
- we are not aware of any circumstance which would render the particulars included in the financial statements misleading or inaccurate.



Gary Smith
Chancellor



Eeva Leinonen
Vice Chancellor



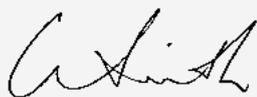
MP Conry
Chief Finance Officer

9 March 2020

Certification of financial statements required by the Department of Education, Skills and Employment

We declare that the amount of Australian Government financial assistance expended during the reporting period was for the purpose for which it was intended and Murdoch University has complied with applicable legislation, contracts, agreements and program guidelines in making expenditure.

Murdoch University charged Student Services and Amenities Fees strictly in accordance with the *Higher Education Support Act 2003* and the Administration Guidelines made under the Act. Revenue from the fee was spent strictly in accordance with the Act and only on services and amenities specified in subsection 19-38(4) of the Act.



Gary Smith
Chancellor

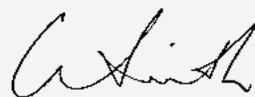


Eeva Leinonen
Vice Chancellor

9 March 2020

Certification of Key Performance Indicators

We hereby certify that the 2019 Key Performance Indicators are based on proper records, are relevant and appropriate for assisting users to assess Murdoch University's performance, and fairly represent the performance of Murdoch University for the year ending 31 December 2019.



Gary Smith
Chancellor



Eeva Leinonen
Vice Chancellor

9 March 2020

INDEPENDENT AUDITOR'S REPORT

To the Parliament of Western Australia

MURDOCH UNIVERSITY

Report on the Financial Statements

Opinion

I have audited the financial statements of Murdoch University which comprise the Statement of Financial Position as at 31 December 2019, the Income Statement, the Statement of Comprehensive Income, Statement of Changes in Equity, Statement of Cash Flows for the University and the consolidated entity and Notes comprising a summary of significant accounting policies and other explanatory information.

In my opinion, the financial statements are based on proper accounts and present fairly, in all material respects, the operating results and cash flows of Murdoch University and the consolidated entity for the year ended 31 December 2019 and the financial position at the end of that period. They are in accordance with Australian Accounting Standards, the *Financial Management Act 2006* and the Treasurer's Instructions.

Basis for Opinion

I conducted my audit in accordance with the Australian Auditing Standards. My responsibilities under those standards are further described in the *Auditor's Responsibilities for the Audit of the Financial Statements* section of my report. I am independent of the University in accordance with the *Auditor General Act 2006* and the relevant ethical requirements of the Accounting Professional and Ethical Standards Board's APES 110 *Code of Ethics for Professional Accountants* (the Code) that are relevant to my audit of the financial statements. I have also fulfilled my other ethical responsibilities in accordance with the Code. I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my opinion.

Emphasis of Matter

Attention is drawn to Note 25 of the financial statements that explains that the impact from the COVID-19 virus and the related extended travel ban, on overseas student income in the year ending 31 December 2020 remains to be quantified. My opinion is not modified in respect of this matter.

Responsibility of the University Senate for the Financial Statements

The University Senate is responsible for keeping proper accounts, and the preparation and fair presentation of the financial statements in accordance with Australian Accounting Standards, the *Financial Management Act 2006* and the Treasurer's Instructions, and for such internal control as the University Senate determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the University Senate is responsible for assessing the agency's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting.

Auditor's Responsibility for the Audit of the Financial Statements

As required by the *Auditor General Act 2006*, my responsibility is to express an opinion on the financial statements. The objectives of my audit are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes my opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Australian Auditing Standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the financial statements.

A further description of my responsibilities for the audit of the financial statements is located at the Auditing and Assurance Standards Board website at https://www.auasb.gov.au/auditors_responsibilities/ar4.pdf. This description forms part of my auditor's report.

Report on Controls

Opinion

I have undertaken a reasonable assurance engagement on the design and implementation of controls exercised by Murdoch University. The controls exercised by the University are those policies and procedures established by the University Senate to ensure that the receipt, expenditure and investment of money, the acquisition and disposal of property, and the incurring of liabilities have been in accordance with legislative provisions (the overall control objectives).

My opinion has been formed on the basis of the matters outlined in this report.

In my opinion, in all material respects, the controls exercised by Murdoch University are sufficiently adequate to provide reasonable assurance that the receipt, expenditure and investment of money, the acquisition and disposal of property and the incurring of liabilities have been in accordance with legislative provisions during the year ended 31 December 2019.

The University Senate's Responsibilities

The University Senate is responsible for designing, implementing and maintaining controls to ensure that the receipt, expenditure and investment of money, the acquisition and disposal of property, and the incurring of liabilities are in accordance with the *Financial Management Act 2006*, relevant Treasurer's Instructions and other relevant written law.

Auditor General's Responsibilities

As required by the *Auditor General Act 2006*, my responsibility as an assurance practitioner is to express an opinion on the suitability of the design of the controls to achieve the overall control objectives and the implementation of the controls as designed. I conducted my engagement in accordance with Standard on Assurance Engagements ASAE 3150 *Assurance Engagements on Controls* issued by the Australian Auditing and Assurance Standards Board. That standard requires that I comply with relevant ethical requirements and plan and perform my procedures to obtain reasonable assurance about whether, in all material respects, the controls are suitably designed to achieve the overall control objectives and the controls, necessary to achieve the overall control objectives, were implemented as designed.

INDEPENDENT AUDITOR'S REPORT *continued*

An assurance engagement to report on the design and implementation of controls involves performing procedures to obtain evidence about the suitability of the design of controls to achieve the overall control objectives and the implementation of those controls. The procedures selected depend on my judgement, including the assessment of the risks that controls are not suitably designed or implemented as designed. My procedures included testing the implementation of those controls that I consider necessary to achieve the overall control objectives.

I believe that the evidence I have obtained is sufficient and appropriate to provide a basis for my opinion.

Limitations of Controls

Because of the inherent limitations of any internal control structure, it is possible that, even if the controls are suitably designed and implemented as designed, once the controls are in operation, the overall control objectives may not be achieved so that fraud, error, or non compliance with laws and regulations may occur and not be detected. Any projection of the outcome of the evaluation of the suitability of the design of controls to future periods is subject to the risk that the controls may become unsuitable because of changes in conditions.

Report on the Key Performance Indicators

Opinion

I have undertaken a reasonable assurance engagement on the key performance indicators of Murdoch University for the year ended 31 December 2019. The key performance indicators are the key effectiveness indicators and the key efficiency indicators that provide performance information about achieving outcomes and delivering services.

In my opinion, in all material respects, the key performance indicators of Murdoch University are relevant and appropriate to assist users to assess the University's performance and fairly represent indicated performance for the year ended 31 December 2019.

The University Senate's Responsibility for the Key Performance Indicators

The University Senate is responsible for the preparation and fair presentation of the key performance indicators in accordance with the *Financial Management Act 2006* and the Treasurer's Instructions and for such internal control as the University Senate determines necessary to enable the preparation of key performance indicators that are free from material misstatement, whether due to fraud or error.

In preparing the key performance indicators, the University Senate is responsible for identifying key performance indicators that are relevant and appropriate having regard to their purpose in accordance with Treasurer's Instruction 904U *Key Performance Indicators*.

Auditor General's Responsibility

As required by the *Auditor General Act 2006*, my responsibility as an assurance practitioner is to express an opinion on the key performance indicators. The objectives of my engagement are to obtain reasonable assurance about whether the key performance indicators are relevant and appropriate to assist users to assess the agency's performance and whether the key performance indicators are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes my opinion. I conducted my engagement in accordance with Standard on Assurance Engagements ASAE 3000 *Assurance Engagements Other than Audits or Reviews of Historical Financial Information* issued by the Australian Auditing and Assurance Standards Board. That standard requires that I comply with relevant ethical requirements relating to assurance engagements.

An assurance engagement involves performing procedures to obtain evidence about the amounts and disclosures in the key performance indicators. It also involves evaluating the relevance and appropriateness of the key performance indicators against the criteria and guidance in Treasurer's Instruction 904U for measuring the extent of outcome achievement and the efficiency of service delivery. The procedures selected depend on my judgement, including the assessment of the risks of material misstatement of the key performance indicators. In making these risk assessments I obtain an understanding of internal control relevant to the engagement in order to design procedures that are appropriate in the circumstances.

I believe that the evidence I have obtained is sufficient and appropriate to provide a basis for my opinion.

My Independence and Quality Control Relating to the Reports on Controls and Key Performance Indicators

I have complied with the independence requirements of the *Auditor General Act 2006* and the relevant ethical requirements relating to assurance engagements. In accordance with ASQC 1 *Quality Control for Firms that Perform Audits and Reviews of Financial Reports and Other Financial Information, and Other Assurance Engagements*, the Office of the Auditor General maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Matters Relating to the Electronic Publication of the Audited Financial Statements and Key Performance Indicators

This auditor's report relates to the financial statements and key performance indicators of Murdoch University for the year ended 31 December 2019 included on the University's website. This audit does not provide assurance on the integrity of the University's website. The auditor's report refers only to the financial statements and key performance indicators described above. It does not provide an opinion on any other information which may have been hyperlinked to/from these financial statements or key performance indicators. If users of the financial statements and key performance indicators are concerned with the inherent risks arising from publication on a website, they are advised to refer to the hard copy of the audited financial statements and key performance indicators to confirm the information contained in this website version of the financial statements and key performance indicators.



CAROLINE SPENCER
AUDITOR GENERAL
FOR WESTERN AUSTRALIA
Perth, Western Australia
13 March 2020

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Artist credit: Amok Island – Banksia Lemniana (detail).

INCOME STATEMENT

for the year ended 31 December 2019

	Note	Consolidated		University	
		2019 \$000's	2018 \$000's	2019 \$000's	2018 \$000's
Income from continuing operations					
Australian Government financial assistance					
Australian Government grants	2	129,974	124,660	129,974	124,660
HELP - Australian Government payments	2	77,027	72,269	77,027	72,269
State and local government financial assistance	3	2,206	5,482	2,206	5,482
HECS-HELP - student payments		4,979	5,606	4,979	5,606
Fees and charges	4	125,451	97,370	123,353	95,798
Net investment revenue	5	10,262	2,418	9,529	2,453
Consultancy and contract research	6	24,153	29,241	24,151	29,293
Other revenue	7	32,829	34,675	23,773	23,979
Gains on disposal of assets		-	49	-	49
Other income	7	38	153	38	153
Total income from continuing operations		406,919	371,923	395,030	359,742
Expenses from continuing operations					
Employee related expenses	8	228,798	213,936	226,294	211,528
Depreciation and amortisation	15, 16	21,766	19,053	23,518	20,086
Repairs and maintenance	9	8,800	11,407	5,922	8,843
Borrowing costs		331	293	372	293
Impairment of assets		488	244	488	244
Loss on disposal of assets		210	-	210	-
Share of loss on investments accounted for using the equity method		5	34	5	34
Other expenses	10	122,053	111,385	118,317	108,933
Total expenses from continuing operations		382,451	356,352	375,126	349,961
Net result before income tax		24,468	15,571	19,904	9,781
Income tax		174	(32)	-	-
Net result after tax from continuing operations attributable to members of Murdoch University		24,294	15,603	19,904	9,781

STATEMENT OF COMPREHENSIVE INCOME

for the year ended 31 December 2019

	Note	Consolidated		University	
		2019 \$000's	2018 \$000's	2019 \$000's	2018 \$000's
Net result after income tax for the period		24,294	15,603	19,904	9,781
Gain on equity instruments designated at fair value through comprehensive income, net of tax	21	16,616	7,604	16,616	7,604
Cash flow hedges, net of tax	21	(57)	95	(57)	95
Exchange differences on translation of foreign operations	21	(274)	(25)	-	-
Gains / loss on revaluation of land, buildings and infrastructure, net of tax	15	13,586	(5,522)	12,580	(5,415)
Total comprehensive income attributable to members of Murdoch University		54,165	17,755	49,043	12,065

STATEMENT OF FINANCIAL POSITION

as at 31 December 2019

	Note	Consolidated			University		
		2019 \$000's	Restated 2018 \$000's	Restated 1 Jan 2018 \$000's	2019 \$000's	Restated 2018 \$000's	Restated 1 Jan 2018 \$000's
Assets							
Current assets							
Cash and cash equivalents	11	92,814	44,086	35,757	76,886	28,962	13,541
Trade and other receivables	12	18,928	21,517	10,836	21,320	22,290	19,413
Contract assets	12	4,815	-	-	4,815	-	-
Inventories		1,125	1,083	1,310	1,124	1,077	1,306
Derivative financial instruments		-	57	-	-	57	-
Other financial assets	13	3,997	77,999	79,951	2,138	76,680	69,900
Prepayments		9,060	6,593	6,466	8,658	6,205	6,359
Total current assets		130,739	151,335	134,320	114,941	135,271	110,519
Non-current assets							
Receivables	12	46	226	-	46	2,969	3,464
Other financial assets	13	116,470	92,604	84,674	116,570	101,882	93,573
Prepayments		64	13	35	64	13	35
Investments accounted for using the equity method		13	17	-	13	17	-
Investment properties	14	235,768	238,888	242,969	235,768	238,888	242,969
Property, plant and equipment	15	706,371	651,544	644,812	706,040	632,976	627,185
Intangible assets	16	17,202	15,045	15,132	17,202	15,045	15,132
Deferred tax assets		-	15	-	-	-	-
Total non-current assets		1,075,934	998,352	987,622	1,075,703	991,790	982,358
Total assets		1,206,673	1,149,687	1,121,942	1,190,644	1,127,061	1,092,877
Liabilities							
Current liabilities							
Trade and other payables	17	24,736	25,044	25,199	22,911	23,957	25,081
Borrowings	18	1,586	438	474	1,353	438	474
Provisions	19	50,780	49,703	45,921	35,952	35,474	31,785
Derivative financial instruments		-	-	38	-	-	38
Other liabilities	20	225,615	235,839	229,177	16,110	22,692	13,448
Contract liabilities	20	25,986	-	-	25,986	-	-
Total current liabilities		328,703	311,024	300,809	102,312	82,561	70,826
Non-current liabilities							
Other payables	17	6	6	6	6	6	6
Borrowings	18	6,053	3,751	4,189	6,053	3,751	4,189
Provisions	19	14,038	13,053	12,934	14,000	13,021	12,902
Deferred tax liability		159	24	103	-	-	-
Total non-current liabilities		20,256	16,834	17,232	20,059	16,778	17,097
Total liabilities		348,959	327,858	318,041	122,371	99,339	87,923
Net assets		857,714	821,829	803,901	1,068,273	1,027,722	1,004,954
Equity							
Reserves	21	413,270	383,399	381,247	413,646	379,717	377,433
Retained earnings	21	444,444	438,430	422,654	654,627	648,005	627,521
Total equity		857,714	821,829	803,901	1,068,273	1,027,722	1,004,954

STATEMENT OF CHANGES IN EQUITY

for the year ended 31 December 2019

	Reserves \$000's	Earnings \$000's	Total \$000's
Balance at 1 January 2018	381,247	426,069	807,316
Effect of adoption of new accounting standards	-	5,551	5,551
Retrospective changes	-	(8,966)	(8,966)
Balance as restated	381,247	422,654	803,901
Net result	-	15,603	15,603
Restatement of prior year error	-	173	173
Revaluation of land, buildings and infrastructure	(5,522)	-	(5,522)
Gain on financial assets at fair value through OCI	7,604	-	7,604
Loss on cash flow hedges	95	-	95
Loss on foreign exchange	(25)	-	(25)
Total comprehensive income	2,152	15,776	17,928
Balance at 31 December 2018	383,399	438,430	821,829
Balance at 1 January 2019	383,399	438,430	821,829
Effect of adoption of new accounting standards	-	(18,280)	(18,280)
Balance as restated	383,399	420,150	803,549
Net result	-	24,294	24,294
Revaluation of land, buildings and infrastructure	13,586	-	13,586
Gain on financial assets at fair value through OCI	16,616	-	16,616
Gain on cash flow hedges	(57)	-	(57)
Loss on foreign exchange	(274)	-	(274)
Total comprehensive income	29,871	24,294	54,165
Balance at 31 December 2019	413,270	444,444	857,714
University			
Balance at 1 January 2018	377,433	630,936	1,008,369
Effect of adoption of new accounting standards	-	5,551	5,551
Retrospective changes	-	(8,966)	(8,966)
Balance as restated	377,433	627,521	1,004,954
Net result	-	9,781	9,781
Restatement of prior year error	-	173	173
Revaluation of land, buildings and infrastructure	(5,415)	-	(5,415)
Gain on financial assets at fair value through OCI	7,604	-	7,604
Loss on cash flow hedges	95	-	95
Total comprehensive income	2,284	9,954	12,238
Transfer to retained earnings - Subsidiary	-	10,530	10,530
Balance at 31 December 2018	379,717	648,005	1,027,722
Balance at 1 January 2019	379,717	648,005	1,027,722
Effect of adoption of new accounting standards	-	(18,280)	(18,280)
Balance as restated	379,717	629,725	1,009,442
Net result	-	19,904	19,904
Revaluation of land, buildings and infrastructure	12,580	-	12,580
Gain on financial assets at fair value through OCI	16,616	-	16,616
Gain on cash flow hedges	(57)	-	(57)
Total comprehensive income	29,139	19,904	49,043
Dissolution of Murdoch College Properties operations	4,790	4,998	9,788
Balance at 31 December 2019	413,646	654,627	1,068,273

STATEMENT OF CASH FLOWS

for the year ended 31 December 2019

	Note	Consolidated		University	
		2019 \$000's	2018 \$000's	2019 \$000's	2018 \$000's
CASH FLOWS FROM OPERATING ACTIVITIES:					
Australian government grants		208,091	195,575	208,091	195,575
State and Local Government grants		2,551	5,482	2,551	5,482
HECS-HELP - student payments		4,979	5,606	4,979	5,606
OS-HELP (net)		242	92	242	92
Receipts from student fees and other customers		174,045	160,745	164,947	158,964
Dividends and distributions received		5,613	2,567	5,585	2,417
Interest received		3,070	2,996	2,828	2,606
Payments to suppliers and employees		(358,894)	(329,284)	(350,780)	(321,802)
Lease payments for short term and low value assets		(1,563)	-	(1,543)	-
Interest and other costs of finance paid		(336)	(292)	(326)	(292)
Income taxes paid		(34)	(49)	-	-
Net cash provided by operating activities	22	37,764	43,438	36,574	48,648
CASH FLOWS FROM INVESTING ACTIVITIES:					
Proceeds from sale of property, plant and equipment		302	338	302	338
Payments for property, plant and equipment, intangibles and investment property		(62,199)	(34,927)	(62,092)	(34,911)
Redemption / (payments) of bank deposits		75,830	73	75,842	(5,942)
Net (payments for) / proceeds from financial assets		(1,829)	102	(1,829)	(1,296)
Payments for investment in associate		-	(51)	-	(51)
Transfer from related entity		-	-	-	9,279
Loan to external party		-	(170)	-	(170)
Net cash provided by / (used in) investing activities		12,104	(34,635)	12,223	(32,753)
CASH FLOWS FROM FINANCING ACTIVITIES:					
Repayment of borrowings		(372)	(397)	(372)	(397)
Repayment of lease liabilities		(768)	(77)	(501)	(77)
Net cash used in financing activities		(1,140)	(474)	(873)	(474)
Net increase in cash and cash equivalents held		48,728	8,329	47,924	15,421
Cash and cash equivalents at beginning of year		44,086	35,757	28,962	13,541
Cash and cash equivalents at end of financial year	11	92,814	44,086	76,886	28,962
Financing arrangements	18				

The Group does not have any non-cash financing and investing activities.

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1 Summary of significant accounting policies

General Statement

The principal accounting policies adopted in the preparation of these financial statements are set out below. These policies have been consistently applied for all years reported unless otherwise stated. The financial statements include separate statements for Murdoch University as the parent entity ("University") and the consolidated entity consisting of Murdoch University and its subsidiaries ("the Group").

The principal address of Murdoch University is 90 South Street, Murdoch WA 6150, Australia.

As per AASB 1054 *Australian Additional Disclosures*, the annual financial statements represent the audited general purpose financial statements of the Group. They have been prepared on an accrual basis and comply with the Australian Accounting Standards (AAS) and other authoritative pronouncements of the AAS Board.

Murdoch University applies Tier 1 reporting requirements.

Additionally, the statements have been prepared in accordance with following statutory requirements:

- * Higher Education Support Act 2003
- * Financial Management Act 2006 (applicable sections)
- * Western Australian Government Treasurer's Instructions (applicable sections)
- * Australian Charities and Not-for-profits Commission Act 2012
- * Statements of Accounting Concepts

The University is a not-for-profit entity and the financial statements have been prepared on that basis. Some of the Australian Accounting Standards requirements for not-for-profit entities are inconsistent with the International Financial Reporting Standards requirements.

Date of authorisation for issue

The financial statements were authorised for issue by Murdoch University's Senate members on 9 March 2020.

Historical cost convention

The financial statements have been prepared under the historical cost convention, except for debt and equity financial assets (including derivative financial instruments) that have been measured at fair value either through other comprehensive income or profit or loss, certain classes of property, plant and equipment and investment properties.

Critical accounting estimates and judgements

The preparation of financial statements in conformity with Australian Accounting Standards require the use of certain critical accounting estimates. It also requires management to exercise its judgement in the process of applying the University's accounting policies. The estimates and underlying assumptions are reviewed on an ongoing basis. The areas involving higher degree of judgement or complexity, or areas where assumptions and estimates are significant to the financial statements, are disclosed below:

Critical accounting estimates and assumptions

- Impairment of assets
- Artworks, land, buildings and infrastructure
- Investment properties
- Leave provisions
- Financial assets fair value through other comprehensive income

Critical judgements in applying the Group's accounting policies

- Useful life of assets

The Group determines the useful life of property, plant and equipment (with the exception of land and artworks) and intangible assets to ensure the assets are depreciated in a manner that reflects the consumption of their future economic benefits.

- Resident loans

Residents are entitled to a portion of the revaluation gain on their unit in accordance with their resident contract. The revaluation of the unit is based on expected entry values for each unit as at year end.

- Deferred management fees (DMF)

The DMF is calculated using variables including the average length of stay for units and serviced apartments and an estimate of the average period for a new tenancy.

(a). Basis of consolidation

Subsidiaries

The consolidated financial statements incorporate the assets and liabilities of all subsidiaries of the University as at 31 December 2019 and the results of all subsidiaries for the year then ended.

Subsidiaries are all those entities (including structured entities) over which the Group has control. The Group has control over an investee when it is exposed, or has rights, to variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee. Power over the investee exists when the Group has existing rights that give it current ability to direct the relevant activities of the investee. The existence and effect of potential voting

1 Summary of significant accounting policies

(a) Basis of consolidation

rights that are currently exercisable or convertible are considered when assessing whether the Group controls another entity. Returns are not necessarily monetary and can be only positive, only negative, or both positive and negative.

Subsidiaries are fully consolidated from the date on which control is transferred to the Group. They are de-consolidated from the date control ceases.

The acquisition method of accounting is used to account for the acquisition of subsidiaries by the Group and measured in the financial statements at the original cost of the investment until the investment is de-recognised.

Inter-entity transactions, balances and unrealised gains on transactions between Group entities are eliminated. Unrealised losses are also eliminated unless the transaction provides evidence of the impairment of the asset transferred. Accounting policies of subsidiaries have been changed where necessary to ensure consistency with the policies adopted by the Group.

Associates

Associates are all entities over which the Group has significant influence but not control. Investments in associates are accounted for in the University financial statements using the cost method and in the consolidated financial statements using the equity method of accounting, after initially being recognised at cost.

The Group's share of its associates' post-acquisition profits or losses is recognised in the income statement, and its share of post-acquisition movements in reserves is recognised in reserves. The cumulative post-acquisition movements are adjusted against the carrying amount of the investment. Dividends receivable from associates are recognised in the parent entity's income statement, while in the consolidated financial statements they reduce the carrying amount of the investment.

When the Group's share of losses in an associate equals or exceeds its interest in the associate, including any other unsecured receivables, the Group does not recognise further losses, unless it has incurred obligations or made payments on behalf of the associate.

(b) Goods and Services Tax (GST)

Revenues, expenses and assets are recognised net of the amount of associated GST, unless the GST incurred is not recoverable from the taxation authority. In this case, it is recognised as part of the cost acquisition of the asset or as part of the expense.

Receivables and payables are stated inclusive of the amount of GST receivable or payable.

The net amount of GST recoverable from, or payable to, the taxation authority is included with other receivables or payables in the statement of financial position.

Cash flows are included in the statement of cash flows on a gross basis. The GST components of cash flows arising from investing or financing activities which are recoverable from, or payable to, the taxation authority, are classified as operating cash flows.

Where necessary, comparative information has been reclassified to enhance comparability in respect of changes in presentation adopted in the current year.

(c) New accounting standards and interpretations

The following standards have been issued but are not mandatory for 31 December 2019 reporting periods. The Group has elected not to early adopt any of these standards. The Group's assessment of the impact of these new standards and interpretations is set out below:

	Standard	Application date	Implications
AASB 1059	Service Concession Arrangements: Grantors	1 Jan 2020	The Group will adopt the standard in the financial year beginning on 1 January 2020. Additional disclosure will be included in its financial statements for the financial year ending 31 December 2020.

1 Summary of significant accounting policies

(d). Initial application of AASB

The Group has adopted AASB15, AASB1058 and AASB16 in accordance with the transitional provisions applicable to each standard. The nature and effect of the changes as a result of adoption of these new accounting standards are described below.

AASB15 and AASB1058

Change in revenue recognition accounting policy

The key changes to the Group's accounting policies and the impact on these financial statements from applying AASB 15 and AASB 1058 are described below:

- Contract revenue that meets the recognition criteria of AASB 15 will only be recognised when promised goods or services are delivered instead of when the Group obtains control of the right to receive the grant.
- Grant revenue received to acquire or construct non-financial assets will only be recognised when the non-financial asset is acquired or constructed.

In addition to the above changes in accounting policies, the Group has also created additional line items of contract assets and contract liabilities on the statement of financial position to align with the requirements of AASB 15 and AASB 1058.

Application of AASB15 and AASB 1058

The Group adopted AASB15 and AASB1058 using the modified retrospective method of transition, with the date of initial application of 1 January 2019. In accordance with the provisions of this transition approach, the Group recognised the cumulative effect of applying these new standards as an adjustment to opening retained earnings at the date of initial application, i.e., 1 January 2019. Consequently, the comparative information presented has not been restated and continues to be reported under the previous standards on revenue and income. In addition, the Group has applied the practical expedient and elected to apply these standards retrospectively only to contracts and transactions that were not completed contracts at the date of initial application, i.e. as at 1 January 2019.

As the Group is applying the modified retrospective approach, the Group did apply the practical expedient described in AASB15.C5 (c), for contracts that were modified before the beginning of the earliest period presented.

The Group did not retrospectively restate the contract for those modifications in accordance with AASB15.20-21. Instead, it reflected the aggregate effect of all of the modifications that occurred before the beginning of the earliest period presented when:

- Identifying the satisfied and unsatisfied performance obligations
- Determining the transaction price
- Allocating the transaction price to the satisfied and unsatisfied performance obligation

Overview of AASB15 and AASB1058

Under the new income recognition model applicable to not-for-profit entities, the Group first determines whether an enforceable agreement exists and whether the promises to transfer goods or services to the customer are 'sufficiently specific'.

If an enforceable agreement exists and the promises are 'sufficiently specific' (to a transaction or part of a transaction), the Group applies the general AASB15 principles to determine the appropriate revenue recognition. If these criteria are not met, the Group considers whether AASB1058 applies.

The effect of the changes to the statement of financial position as a result of adoption of AASB15 and AASB1058 as at 1 January 2019 are presented below:

	Ref adjustment	Consolidated 1 January 2019 \$000's	University 1 January 2019 \$000's
Assets			
Current assets			
Contracts assets	(i)	2,687	2,687
Total assets		2,687	2,687
Liabilities			
Current liabilities			
Trade and other payables	*	(1,470)	(1,470)
Contract liabilities	(ii)	20,967	20,967
Contract liabilities - reclassification	*	1,470	1,470
Total liabilities		20,967	20,967
Net assets		(18,280)	(18,280)
Total adjustment on equity			
Retained earnings	(i)(ii)	(18,280)	(18,280)
Total equity		(18,280)	(18,280)

* An amount of \$1.47m was recognised as an accrued expense as at 31 December 2018. Upon adoption of AASB 15 on 1 January 2019, this amount has been reclassified as a contract liability.

1 Summary of significant accounting policies

(d). Initial application of AAS

Set out below are the amounts by which each financial statement line item is affected as at and for the year ended 31 December 2019 as a result of the adoption of AASB15 and AASB1058. The adoption of AASB15 did not have a material impact on Other Comprehensive Income or the Group's operating, investing and financing cash flows. The first column shows amounts prepared under AASB15 and AASB1058 and the second column shows what the amounts would have been had AASB15 and AASB1058 not been adopted:

Income Statement	Ref adjustment	Amounts prepared under					
		Consolidated			University		
		AASB15/ AASB1058 \$000's	Previous AAS \$000's	Increase / (decrease) \$000's	AASB15/ AASB1058 \$000's	Previous AAS \$000's	Increase / (decrease) \$000's
Revenue and income from continuing operations							
Australian Government financial assistance		-	-	-	-	-	-
Australian Government grants	(i)(ii)	121,592	123,835	(2,243)	121,592	123,835	(2,243)
HELP – Australian Government payments		77,027	77,027	-	77,027	77,027	-
State and local government financial assistance	(i)(ii)	2,206	2,551	(345)	2,206	2,551	(345)
HECS-HELP – Student payments		4,979	4,979	-	4,979	4,979	-
Fees and charges		125,321	125,321	-	123,353	123,353	-
Consultancy and contracts	(i)(ii)	32,535	34,818	(2,283)	32,533	34,816	(2,283)
Other revenue	(iii)	32,959	32,940	19	23,773	23,754	19
Other income		38	38	-	38	38	-
Investment income (net gains/losses)		10,262	10,262	-	9,529	9,529	-
Total revenue and income from continuing operations		406,919	411,771	(4,852)	395,030	399,882	(4,852)
Expenses from continuing operations							
Employee related expenses		(228,798)	(228,798)	-	(226,294)	(226,294)	-
Depreciation and amortisation		(21,766)	(21,766)	-	(23,518)	(23,518)	-
Repairs and maintenance		(8,800)	(8,800)	-	(5,922)	(5,922)	-
Borrowing costs		(331)	(331)	-	(372)	(372)	-
Impairment of assets		(488)	(488)	-	(488)	(488)	-
Losses on disposal of assets		(210)	(210)	-	(210)	(210)	-
Share on loss on investment accounted for using the equity method		(5)	(5)	-	(5)	(5)	-
Other expenses	(iii)	(122,053)	(125,484)	(3,431)	(118,317)	(121,748)	(3,431)
Total expenses from continuing operations		(382,451)	(385,882)	(3,431)	(375,126)	(378,557)	(3,431)
Net result before income tax from continuing operations		24,468	25,889	(1,421)	19,904	21,325	(1,421)
Income tax expense		(174)	(174)	-	-	-	-
Net result from continuing operations, after tax		24,294	25,715	(1,421)	19,904	21,325	(1,421)

1 Summary of significant accounting policies

(d). Initial application of AAS

Statement Of Financial Position	Ref adjustment	Amounts prepared under					
		Consolidated			University		
		AASB15/ AASB1058 \$000's	Previous AAS \$000's	Increase / (decrease) \$000's	AASB15/ AASB1058 \$000's	Previous AAS \$000's	Increase / (decrease) \$000's
Assets							
Current assets							
Cash and cash equivalents		92,814	92,814	-	76,886	76,886	-
Receivables		18,929	18,929	-	21,321	21,321	-
Contracts assets	(i)	4,815	-	4,815	4,815	-	4,815
Inventories		1,125	1,125	-	1,124	1,124	-
Other financial assets		3,997	3,997	-	2,138	2,138	-
Prepayments		9,060	9,060	-	8,658	8,658	-
Total current assets		130,740	125,925	4,815	114,942	110,127	4,815
Non-current assets							
Receivables		46	46	-	46	46	-
Other financial assets		116,470	116,470	-	116,570	116,570	-
Prepayments		64	64	-	64	64	-
Investments accounted for using the equity method		13	13	-	13	13	-
Investment properties		235,768	235,768	-	235,768	235,768	-
Property, plant and equipment		706,371	706,371	-	706,040	706,040	-
Intangible assets		17,202	17,202	-	17,202	17,202	-
Total non-current assets		1,075,934	1,075,934	-	1,075,703	1,075,703	-
Total assets		1,206,674	1,201,859	4,815	1,190,645	1,185,830	4,815
Liabilities							
Current liabilities							
Trade and other payables		24,737	24,737	-	22,912	22,912	-
Borrowings		1,586	1,586	-	1,353	1,353	-
Provisions		50,780	50,780	-	35,952	35,952	-
Other liabilities		225,615	225,615	-	16,110	16,110	-
Contract liabilities	(ii)	25,986	-	25,986	25,986	-	25,986
Total current liabilities		328,704	302,718	25,986	102,313	76,327	25,986
Non-current liabilities							
Other payables		6	6	-	6	6	-
Borrowings		6,053	6,053	-	6,053	6,053	-
Provisions		14,038	14,038	-	14,000	14,000	-
Deferred tax liability		159	159	-	-	-	-
Total non-current liabilities		20,256	20,256	-	20,059	20,059	-
Total liabilities		348,960	322,974	25,986	122,372	96,386	25,986
Net assets		857,714	878,885	(21,171)	1,068,273	1,089,444	(21,171)
Equity							
Reserves		413,270	413,270	-	413,646	413,646	-
Retained earnings		444,444	465,615	(21,171)	654,627	675,798	(21,171)
Total equity		857,714	878,885	(21,171)	1,068,273	1,089,444	(21,171)

The nature of the adjustments as at 1 January 2019 and the reasons for the significant changes in the statement of financial position as at 31 December 2018 and the income statement for the year ended 31 December 2019 are described below:

(i) Contract assets

Revenue receivable where services or goods have been delivered and consideration has not yet been received as at the reporting date.

1 Summary of significant accounting policies

(d). Initial application of AAS

(ii) Contract liability

Deferred revenue as a result of consideration received in advance and services or goods not delivered as at the reporting date.

(iii) Stipend scholarship

Cash received for stipend scholarships are recognised as a financial liability upon receipt where there is an obligation to deliver cash to a third party. The liability is discharged upon cash disbursement to the designated recipient. Receipts and payments are no longer recognised in the income statement.

AASB16

The Group has adopted AASB16 using the modified retrospective method of transition, with the date of initial application date of 1 January 2019.

Under the modified approach, the Group has chosen, on a lease-by-lease basis, to measure the related right-of-use asset at an amount equal to the lease liability, adjusted by the amount of any prepaid or accrued lease payments relating to that lease recognised in the statement of financial position immediately before the date of initial application.

Consequently, the comparative information presented has not been restated and continues to be reported under the previous standards on leases - AASB117 and AASB Interpretation 4 *Determining whether an arrangement contains a lease* (Interpretation 4). The new accounting policies for leases in accordance with AASB16 is provided in the note.

The nature and effect of the changes as a result of adoption of AASB16 are described below:

Definition of a lease

Previously, the Group determined at contract inception whether an arrangement is or contains a lease under Interpretation 4. Under AASB16, the Group will continue to assess at contract inception whether a contract is, or contains, a lease but now using the new definition of a lease.

On transition to AASB16, the Group elected to apply the practical expedient to grandfather the assessment of which transactions are/or contain leases. Accordingly for arrangements entered into before 1 January 2019, the Group has not reassessed whether they are/or contain, a lease in accordance with the new AASB16 lease definition. Consequently, contracts existing prior to 1 January 2019 which had been assessed per the previous accounting policy as a lease will be treated as a lease under AASB16. Contracts previously not identified as a lease however, have and will not be reassessed to determine whether they meet the new definition of a lease in accordance with AASB16. In summary, the Group has applied the recognition and measurement requirements of AASB16 only to contracts that were previously identified as leases. The new definition of a lease under AASB16 will only be applied to contracts entered into or modified on or after 1 January 2019.

Incentives

Under AASB117, lease incentives received were recognised as an integral part of the total lease expense, over the term of the lease. Under AASB16, the Group recognises incentives as part of the right-of-use asset.

Make good provisions

Upon transition, make good provisions have been included as part of the right-of-use asset for applicable property leases, amortised at straight-line over asset lease term.

As a lessee

Under AASB 117, the Group assessed whether leases were operating or finance leases based on its assessment of whether the significant risks and rewards of ownership had been transferred to the Group or remained with the lessor. Under AASB 16, there is no differentiation between finance and operating leases for the lessee and therefore all leases which meet the definition of a lease are recognised on the statement of financial position (except for short-term leases (less than 12 months) and leases of low value assets (less than \$5,000)).

The Group has elected to use the exception provided by AASB 16 for short-term leases and leases of low value assets. The lease expense relating to these leases are recognised in the income statement on a straight line basis.

AASB 16 includes a number of practical expedients which can be used on transition, the Group has used the following expedients:

- contracts which had previously been assessed as not containing leases under AASB 117 were not re-assessed on transition to AASB 16;
- lease liabilities have been discounted using the Group's incremental borrowing rate at 1 January 2019;
- right-of-use assets at 1 January 2019 have been measured at an amount equal to the lease liability adjusted by the amount of any prepaid or accrued lease payments;
- a single discount rate has been applied to all leases with similar characteristics;
- excluded leases with an expiry date prior to 31 December 2020 from the statement of financial position and lease expenses for these leases have been recorded on a straight-line basis over the remaining term;
- used hindsight when determining the lease term if the contract contains options to extend or terminate the lease;
- for leases which were classified as finance leases under AASB 117, the carrying amount of the right-of-use asset and the lease liability at 1 January 2019 are the same value as the leased asset and liability on 31 December 2018.

1 Summary of significant accounting policies

(d). Initial application of AAS

Reconciliation of operating lease commitments under AASB117 and lease liabilities under AASB16

As a lessee, the weighted average incremental borrowing rate applied to lease liabilities recognised in the statement of financial position on the date of initial application was 3.51% for the Group and 3.37% for the University.

The difference between operating lease commitments disclosed previously by applying AASB117 and the value of the lease liabilities recognised under AASB16 on 1 January 2019 is explained as follows:

	Consolidated	University
	1 January 2019	
	\$000's	\$000's
Operating lease commitments disclosed at 31 December 2018	4,171	3,659
Discounted using the Murdoch University weighted average incremental borrowing rate of 3.51% for the Group and 3.37% for the University.	(18)	(6)
Less: Correction of opening balance	(14)	(5)
Less: Short-term leases recognised on a straight-line basis as an expense	(400)	(400)
Less: Low-value leases recognised on a straight-line basis as an expense	(2,399)	(2,399)
Less: Non-lease components	(657)	(654)
Add: Property lease not previously recognised	235	2,049
Add: Forex translation relating to subsidiary	2	-
Lease liability recognised as at 1 January 2019	920	2,244

Amounts recognised in the income statement

	Consolidated		University	
	2019	2018	2019	2018
	\$000's	\$000's	\$000's	\$000's
Interest on lease liabilities	76	-	117	-
Amortisation of right of use assets	873	-	1,509	-
Operating lease payments	3,790	3,927	3,390	4,166
	4,739	3,927	5,016	4,166

Maturity analysis - undiscounted contractual cash flows

	Consolidated		University	
	2019	2018	2019	2018
	\$000's	\$000's	\$000's	\$000's
Less than one year	1,188	66	955	66
One to five years	2,550	13	2,550	13
More than five years	163	-	163	-
Total undiscounted lease payments payable	3,901	79	3,668	79
Current	1,188	66	955	66
Non-current	2,713	13	2,713	13
	3,901	79	3,668	79

1 Summary of significant accounting policies

(e). Corrections of prior period error

During 2019, the University commenced a review of the application of both the requirements of the Fair Work Act 2009 and the University's historical industrial agreements to the calculation of long service leave balances/payments for relevant current and previous employees. In doing so, it was identified that the University had been incorrectly calculating long service leave entitlements for a portion of its employees. The estimated error in the calculation of long service leave entitlements has been corrected by restating each of the affected financial statement line items as at 1 January 2018. The impact of the relevant balances on rectification of the error is as follows:

Statement of financial position	Consolidated			University		
	As reported previously \$000's	Adjustment \$000's	Restated \$000's	As reported previously \$000's	Adjustment \$000's	Restated \$000's
As at 1 January 2018						
Current liabilities						
Trade and other payables	22,081	3,118	25,199	21,963	3,118	25,081
Provisions	41,431	4,490	45,921	27,295	4,490	31,785
Non-current liabilities						
Provisions	11,576	1,358	12,934	11,544	1,358	12,902
Equity						
Retained earnings	431,620	(8,966)	422,654	636,487	(8,966)	627,521
As at 31 December 2018						
Current liabilities						
Trade and other payables	21,907	3,137	25,044	20,820	3,137	23,957
Provisions	44,259	5,444	49,703	30,030	5,444	35,474
Non-current liabilities						
Provisions	12,841	212	13,053	12,809	212	13,021
Equity						
Retained earnings	447,223	(8,793)	438,430	656,798	(8,793)	648,005

2 Australian Government financial assistance including Australian Government loan programs (HELP)

(a). Commonwealth Grants Scheme and Other Grants

		Consolidated		University	
	Note	2019	2018	2019	2018
		\$000's	\$000's	\$000's	\$000's
Commonwealth Grants Scheme (CGS) ^{#1}		97,069	96,503	97,069	96,503
Disability Performance Funding ^{#2}		199	197	199	197
Indigenous Student Success Program ^{#3}		1,186	1,053	1,186	1,053
Access and Participation Fund		2,329	2,154	2,329	2,154
Total Commonwealth Grants Scheme and Other Grants	32(a)	100,783	99,907	100,783	99,907

(b). Higher Education Loan Programs

HECS - HELP		66,206	61,325	66,206	61,325
FEE - HELP		9,111	9,443	9,111	9,443
SA - HELP		1,710	1,501	1,710	1,501
Total Higher Education Loan Programs	32(b)	77,027	72,269	77,027	72,269

(c). Education Research

Research Training Program		9,741	9,852	9,741	9,852
Research Support Program		7,572	7,975	7,572	7,975
Total Education Research Grants	32(c)	17,313	17,827	17,313	17,827

(d). Australian Research Council

Discovery		617	605	617	605
Linkages		447	690	447	690
Total ARC	32(f)	1,064	1,295	1,064	1,295

(e). Other Australian Government financial assistance

Non-capital					
Non research funding		-	3,553	-	3,553
Research funding		2,432	2,078	2,432	2,078
Capital					
Research funding ^{#4}		8,382	-	8,382	-
Total Other Australian Government financial assistance		10,814	5,631	10,814	5,631
Total Australian Government financial assistance		207,001	196,929	207,001	196,929

^{#1} Includes the basic CGS grant amount, Regional Loading, Enabling Loading, Medical Student Loading, Allocated Places and Non Designated Courses.

^{#2} Disability Performance Funding includes Additional Support for Students with Disabilities and Australian Disability Clearinghouse on Education and Training.

^{#3} Indigenous Student Success Program replaced the Indigenous Commonwealth Scholarships Program and the Indigenous Support Program as of 1 January 2017.

^{#4} Related to Federal Government support for the Australian National Phenome Centre.

Where an enforceable agreement exists between the University and the Government to transfer sufficiently specific goods or services to a customer, the University recognises grant revenue as and when goods and services are transferred. Revenue is recognised based on the University's input (cost) to the satisfaction of a performance obligation over the total expected input.

Where there is no identified enforceable agreement or performance obligation is not sufficiently specific, revenue is recognised immediately when the University has the contractual right to receive the grant.

3 State and Local Government financial assistance

	Consolidated		University	
	2019	2018	2019	2018
	\$000's	\$000's	\$000's	\$000's
Non-Capital				
State Government	1,821	3,463	1,821	3,463
Local Government	385	2,019	385	2,019
Total State and Local Government financial assistance	2,206	5,482	2,206	5,482

Where an enforceable agreement exists between the University and the State or Local Government to transfer sufficiently specific goods or services to a customer, the University recognises grant revenue as and when goods and services are transferred. Revenue is recognised based on the University's input (cost) to the satisfaction of a performance obligation over the total expected input.

Where there is no identified enforceable agreement or performance obligation is not sufficiently specific, revenue is recognised immediately when the University has the contractual right to receive the grant.

4 Fees and charges

	Note	Consolidated		University	
		2019	2018	2019	2018
		\$000's	\$000's	\$000's	\$000's
Course fees and charges					
Fee-paying onshore overseas students		80,540	57,892	80,540	57,892
Fee-paying offshore overseas students		20,895	16,083	3,462	394
Continuing education		157	143	157	143
Fee-paying domestic postgraduate students		1,895	2,199	1,895	2,199
Other domestic course fees and charges		4,328	4,433	4,328	4,433
Total course fees and charges		107,815	80,750	90,382	65,061
Other non-course fees and charges					
Student services and amenities fees from students	32(h)	1,968	1,724	1,968	1,724
Facilities fees		-	1,095	-	1,095
Service and management fees		-	-	14,077	13,029
Other fees and charges		5,539	4,638	6,610	5,539
Recovery charges		3,917	3,412	3,990	3,500
Parking fees		2,062	1,897	2,062	1,897
Rental and lease charges		4,150	3,854	4,264	3,953
Total other fees and charges		17,636	16,620	32,971	30,737
Total fees and charges		125,451	97,370	123,353	95,798

Course fees and charges are recognised over time as and when the course is delivered to students over the semester. When the courses or training have been paid in advanced by students or the University has received the government funding in advance, the University recognises a contract liability until the services are delivered.

Non-course fees and charges revenue is recognised over time as and when the service is provided over the period.

Scholarships provided by the University towards tuition fees is offset against course fees income.

5 Investment income and losses

	Consolidated		University	
	2019	2018	2019	2018
	\$000's	\$000's	\$000's	\$000's
Interest on bank deposits	2,792	2,968	2,560	2,597
Dividends and franking credits received	1,364	3,418	1,336	3,378
Income distributions from managed funds	1,924	1,573	1,924	1,573
Net gains / (loss) on financial assets designated at fair value through profit or loss	7,308	(1,451)	6,835	(1,005)
Fair value gain/ (loss) on investment property	(3,126)	(4,090)	(3,126)	(4,090)
Net Investment revenue	10,262	2,418	9,529	2,453

Investment revenue is recognised when i) the Group's right to receive the payment is established; ii) it is probable that the economic benefits associated with the revenue will flow to the Group; and iii) the amount can be measured reliably.

Changes in fair value in investment property and financials assets designated at fair value through profit or loss are recognised immediately in the income statement.

6 Consultancy and contract research

	Consolidated		University	
	2019	2018	2019	2018
	\$000's	\$000's	\$000's	\$000's
Contract research	23,741	28,690	23,741	28,690
Consultancy	412	551	410	603
Total consultancy and contract research	24,153	29,241	24,151	29,293

Research grants that are considered within the scope of AASB 15 due to the existence of an enforceable agreement and the promise to transfer goods or services to the customer (or on behalf of the customer) are sufficiently specific as the University has the obligation to provide:

- A refund if the goods or services are not provided
- Comprehensive academic paper with the results of the research after completion
- Intellectual property
- Perpetual and royalty-free licence to the developed intellectual property

Depending on the nature of the promise, the University either recognises revenue over time as the services are performed or at a point in time when the obligation is delivered.

Consultancy revenue is recognised over time in the period in which the service is provided.

7 Other revenue and other income

	Consolidated		University	
	2019	2018	2019	2018
	\$000's	\$000's	\$000's	\$000's
Other revenue				
Deferred management fee	4,575	4,613	-	-
Donations and bequests	1,346	1,837	1,395	2,039
Non-government grants	225	103	225	103
Subscriptions	47	13	47	13
Common service fees and electives	2,300	2,360	-	-
Statutory refunds	20	43	-	-
Other revenue	2,370	3,183	1,368	1,912
Scholarships and prizes	1,329	1,273	1,329	1,273
Sponsorships income	403	395	393	395
Trading income	19,658	18,680	19,016	18,244
Fair value gain on resident loans	556	2,175	-	-
Total other revenue	32,829	34,675	23,773	23,979
Other income				
Bad debts recovered or written back	38	153	38	153
Total other income	38	153	38	153

Deferred management fees (DMF), relating to the St Ives Retirement Village Murdoch, are earned whilst the resident occupies the independent living unit or serviced apartment. The DMF revenue on the original loan from the resident is recognised as income on a straight line basis over the resident's expected tenure. Expected tenure is calculated by reference to information issued by the Australian Bureau of Statistics for life expectancy and industry trends regarding rollovers.

The DMF revenue on changes in the market value of the independent living unit or serviced apartment is recognised on an emerging basis, calculated as the amount that would be receivable at each period end. Where a rollover occurs prior to estimated tenure duration, the difference between the cash received and the accrued DMF is recognised immediately in the income statement.

Donation and bequest is recognised as revenue upon receipt pursuant to issuing a Deductible Gift Recipient "DGR" Tax Invoice. A DGR Tax Invoice is issued on the implicit assumption that the donation must, from a legal and taxation perspective, be given voluntarily and as such cannot be refunded or objectives enforced.

Trading income mainly comprise of income generated from The Animal Hospital and the University's bookshop. Revenue is recognised when services are provided or goods are sold.

Other revenue is brought to account as it is earned and is recognised when the goods and services are provided.

8 Employee related expenses

	Consolidated		University	
	2019	2018	2019	2018
	\$000's	\$000's	\$000's	\$000's
Academic				
Salaries	87,064	80,673	85,928	79,356
Contribution to superannuation and pension schemes	12,694	12,698	12,641	12,654
Payroll tax	5,631	5,206	5,631	5,206
Worker's compensation	463	543	463	543
Annual leave	1,563	987	1,536	991
Long service leave expense	2,717	2,624	2,717	2,624
Total academic	110,132	102,731	108,916	101,374
Non-academic				
Salaries	94,260	87,921	93,184	87,015
Contribution to superannuation and pension schemes	13,350	13,320	13,224	13,209
Payroll tax	6,168	5,718	6,121	5,683
Worker's compensation	486	574	486	574
Annual leave	1,522	856	1,508	861
Long service leave expense	2,880	2,816	2,855	2,812
Total non-academic	118,666	111,205	117,378	110,154
Total employee related expenses	228,798	213,936	226,294	211,528

Contributions to the defined contribution section of the Group's superannuation fund and other independent defined contribution superannuation funds are recognised as an expense as they become payable.

Past service costs are recognised in profit or loss immediately.

9 Repairs and maintenance

	Consolidated		University	
	2019	2018	2019	2018
	\$000's	\$000's	\$000's	\$000's
Buildings and grounds	6,752	9,343	4,180	7,089
Other	2,048	2,064	1,742	1,754
Total repairs and maintenance	8,800	11,407	5,922	8,843

Repairs and maintenance costs are recognised as expenses as incurred, except where they relate to the replacement of a component of an asset, in which case the costs of the carrying amount of those parts that are replaced is derecognised and the cost of the replacing part is capitalised if the recognition criteria are met. Other routine operating maintenance, repair and minor renewal costs are also recognised as expenses, as incurred.

10 Other expenses

	Consolidated		University	
	2019	2018	2019	2018
	\$000's	\$000's	\$000's	\$000's
Administration expenses	10,775	10,146	9,629	8,774
Advertising, marketing and promotions	7,474	5,459	7,041	5,218
Audit fees, bank charges, legal costs, insurance and taxes	5,340	4,942	4,071	3,603
Consulting fees - other	14,229	11,309	14,401	12,043
Consulting fees - teaching	4,464	2,335	4,417	2,400
Consulting fees - research	5,885	5,834	5,885	5,834
Cost of sales	6,266	6,134	6,267	6,130
Donations and sponsorships	1,431	1,420	1,430	1,419
General consumables	5,614	4,943	5,476	4,789
Licence and royalty fees	5,672	4,881	5,662	4,872
Non-capitalised equipment	2,501	2,352	2,487	2,342
Occupancy costs	6,392	5,368	6,131	5,125
Operating lease payments	3,790	3,927	3,390	4,166
Other expenses	14,143	10,763	14,128	10,754
Productivity improvement program costs	852	2,576	852	2,576
Scholarships, grants and prizes	12,926	17,030	12,926	17,030
Telecommunications	917	973	907	964
Travel and related staff development and training	13,382	10,993	13,217	10,894
Total other expenses	122,053	111,385	118,317	108,933

Operating lease payments comprise of leases with a lease term of 12 months or less and leases of low-value assets i.e., when the value of the leased asset when new is \$5,000 or less. Lease payments associated with these leases are expensed on a straight-line basis over the lease term.

Other expenses are recognised as incurred and became payable.

Scholarships provided by the University towards tuition fees have been reclassified to fees and charges (note 4) and offset against course fee income.

11 Cash and cash equivalents

	Consolidated		University	
	2019	2018	2019	2018
	\$000's	\$000's	\$000's	\$000's
Current				
Cash at bank and on hand	22,760	28,688	13,387	19,962
Bank bills and deposits	70,054	15,398	63,499	9,000
Total cash and cash equivalents	92,814	44,086	76,886	28,962

(a). Reconciliation to cash at the end of the year

The above figures are reconciled to cash at the end of the year as shown in the statement of cash flows as follows:

	Consolidated		University	
	2019	2018	2019	2018
	\$000's	\$000's	\$000's	\$000's
Unrestricted	77,961	40,343	65,437	28,568
Restricted	14,853	3,743	11,449	394
Balance as per statement of cash flows	92,814	44,086	76,886	28,962

(b). Cash at bank and on hand

The consolidated cash at bank and on hand had an average floating interest rate of 0.65% as at 31 December 2019 (2018: 1.00%).

The University cash at bank and on hand had an average floating interest rate of 0.62% as at 31 December 2019 (2018: 1.01%).

(c). Bank bills and deposits

The consolidated bank bills and deposits are bearing average fixed interest rates of 1.36% as at 31 December 2019 (2018: 2.67%). These deposits have an average maturity of 28 days.

The University bank bills and deposits are bearing average fixed interest rates of 1.34% as at 31 December 2019 (2018: 2.66%). These deposits have an average maturity of 25 days.

Cash and cash equivalents include cash on hand, deposits held at call with financial institutions, other short-term, highly liquid investments with original maturities of three months or less that are readily convertible to known amounts of cash and which are subject to an insignificant risk of changes in value.

12 Receivables

	Consolidated		University	
	2019	2018	2019	2018
	\$000's	\$000's	\$000's	\$000's
Current				
Trade receivables	14,290	16,714	16,670	17,511
Student fees receivable	2,872	3,548	2,872	3,548
Less: allowance for expected credit losses	(1,876)	(1,436)	(1,862)	(1,422)
	15,286	18,826	17,680	19,637
Loan receivable	170	-	170	-
Other	3,472	2,691	3,470	2,653
Total trade and other receivable	18,928	21,517	21,320	22,290
Contract assets	4,815	-	4,815	-
Total current receivables	23,743	21,517	26,135	22,290
Non-current				
Loans receivable	-	170	-	2,913
Other	46	56	46	56
Total non-current receivables	46	226	46	2,969

Trade receivables are non-interest bearing and are generally on terms of 30 days.

Set out below is the movement in the allowance for expected credit losses of trade receivables.

	Consolidated		University	
	2019	2018	2019	2018
	\$000's	\$000's	\$000's	\$000's
At 1 January	1,436	1,298	1,422	1,284
Provision for expected credit losses	476	238	476	238
Write-off	(36)	(100)	(36)	(100)
At 31 December	1,876	1,436	1,862	1,422

The information about credit risk exposures are disclosed in Note 28 Financial Risk Management.

Trade receivables and student fee receivables are held to collect contractual cash flows and give rise to cash flows representing solely payments of principal and interest. These are classified and measured as debt instruments at amortised cost. Trade receivables are due for settlement in no more than 30 days. Tuition fee receivables are due on the first day of the academic period.

For both trade and student fee receivables the Group applies a simplified approach in calculating expected credit losses (ECL). Accordingly, the Group does not track changes in credit risk, but instead recognises a loss allowance based on lifetime ECL at each reporting date. The Group has established a provision matrix that is based on historical credit loss experience, adjusted for forward-looking factors specific to the debtors and the economic environment.

13 Other financial assets

Current

	Consolidated		University	
	2019	2018	2019	2018
	\$000's	\$000's	\$000's	\$000's
Unrestricted				
Other financial assets at fair value through profit or loss - listed securities	605	182	-	-
Other financial assets at amortised costs - bank deposits	686	67,174	-	66,500
Total unrestricted current other financial assets	1,291	67,356	-	66,500
Restricted				
Other financial assets at fair value through profit or loss - listed securities	2,706	1,301	2,138	838
Other financial assets at amortised costs - bank deposits	-	9,342	-	9,342
Total restricted current other financial assets	2,706	10,643	2,138	10,180
Total current other financial assets	3,997	77,999	2,138	76,680

(a). Non-current

Unrestricted				
Other financial assets at fair value through profit or loss - managed funds	70,784	63,454	70,784	63,454
Other financial assets at amortised costs - shares in subsidiaries	-	-	100	9,278
Investments in equity instruments designated at fair value through other comprehensive income - unlisted securities	45,472	28,856	45,472	28,856
Total unrestricted non-current other financial assets	116,256	92,310	116,356	101,588
Restricted				
Other financial assets at fair value through profit or loss - managed funds	214	294	214	294
Total restricted non-current other financial assets	214	294	214	294
Total non-current other financial assets	116,470	92,604	116,570	101,882
Total other financial assets	120,467	170,603	118,708	178,562

Initial recognition and measurement

Financial assets are classified, at initial recognition and subsequently measured at either amortised cost, fair value through other comprehensive income (OCI) or fair value through profit or loss. The classification of financial assets at initial recognition depends on the financial asset's contractual cash flow characteristics and the Group's business model for managing them. With the exception of trade receivables that do not contain a significant financing component or for which the Group applied the practical expedient, the Group initially measures a financial asset at its fair value and in the case of a financial asset not at fair value through profit or loss at transaction costs. In order for a financial asset to be classified and measured at amortised cost or fair value through OCI, it needs to give rise to cash flows that are 'solely payments of principal and interest (SPPI)' on the principal amount outstanding. This assessment is referred to as the SPPI test and is performed at an instrument level. The Group's business model for managing financial assets refers to how it manages its financial assets in order to generate cash flows. The business model determines whether cash flows will result from collecting contractual cash flows, selling the financial assets, or both.

Subsequent measurement

For the purpose of subsequent measurement, financial assets are classified in categories below:

Financial assets at amortised cost

The Group measures financial assets at amortised cost if i) it is held to collect contractual cash flow and ii) the contractual terms of the financial assets give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding. The Group has elected to classify its investment in subsidiaries at cost. Gains and losses are recognised in profit and loss statement when the asset is derecognised, modified and impaired.

Financial assets at fair value through profit and loss

Financial assets with cash flows that are not solely payments of principal and interest are classified and measured at fair value through profit and loss, irrespective of the business model. Financial assets at fair value through profit and loss are carried in the statement of financial position at fair value with net changes in fair value recognised in the income statement.

13 Other financial assets

Investment in equity instruments designated at fair value through other comprehensive income

Upon initial recognition, the Group elected to classify irrevocably its equity investments as equity investment designated at fair value through OCI when it met the definition of equity under AASB 132 *Financial Instruments: Presentation* and are not held for trading. The classification is determined on an instrument-by-instrument basis.

Gains and losses on these financial assets are never put through to profit or loss. Dividends are recognised as investment income in the income statement when the right of payment has been established. Equity instruments designated at fair value through OCI are not subject to impairment assessment.

The Group also elected to classify irrevocably its non-listed equity investment (excluding the Group's subsidiaries) under this category.

14 Investment properties

	Consolidated		University	
	2019	2018	2019	2018
	\$000's	\$000's	\$000's	\$000's
Opening balance at 1 January	238,888	242,969	238,888	242,969
Fair value loss	(3,126)	(4,090)	(3,126)	(4,090)
Capitalisation - residual costs	6	9	6	9
Closing balance at 31 December	235,768	238,888	235,768	238,888

Investment property include a commercial building that is leased to a third party under an operating lease and the St Ives Retirement Village Murdoch.

For fair value hierarchy categorisation of investment properties see note 29.

(a). Amounts recognised in the income statement for the commercial building

	Consolidated		University	
	2019	2018	2019	2018
	\$000's	\$000's	\$000's	\$000's
Rental income	1,340	1,259	1,340	1,259
Direct operating expenses	(162)	(162)	(162)	(162)
Fair value gain	114	421	114	421
Total recognised in profit or loss	1,292	1,518	1,292	1,518

(b). Amounts recognised in the income statement for St Ives Retirement Village Murdoch

	Consolidated		University	
	2019	2018	2019	2018
	\$000's	\$000's	\$000's	\$000's
Fair value loss	(3,240)	(4,511)	(3,240)	(4,511)
Total recognised in profit or loss	(3,240)	(4,511)	(3,240)	(4,511)

(c). Operating lease (as lessor) - commercial building

	Consolidated		University	
	2019	2018	2019	2018
	\$000's	\$000's	\$000's	\$000's
The future minimum lease payments under non-cancellable leases are as follows:				
Within one year	1,097	1,274	1,097	1,274
Later than one year but not later than five years	-	1,097	-	1,097
	1,097	2,371	1,097	2,371

Investment properties exclude properties held to meet service delivery objectives of Murdoch University.

Investment properties are initially recognised at cost. Costs incurred subsequent to initial acquisition are capitalised when it is probable that future economic benefits in excess of the originally assessed performance of the asset will flow to Murdoch University. Where an investment property is acquired at no cost or for nominal consideration, its cost shall be deemed to be its fair value as at the date of acquisition.

Subsequent to initial recognition at cost, investment property is carried at fair value, which is based on active market prices of similar properties, adjusted if necessary, for any difference in the nature, location or condition of the specific asset. If this information is not available, the Group uses alternative valuation methods such as recent prices in less active markets or discounted cash flow projections. These valuations are assessed annually by an external valuer. Changes in fair values are recorded in the income statement as part of the other income.

Rental revenue from the leasing of investment properties is recognised in the income statement in the periods in which it is receivable, as this represents the pattern of service rendered through the provision of the properties.

Property, plant and equipment

University	Land \$000's	Buildings \$000's	Infrastructure \$000's	Construction in progress \$000's	Plant and equipment* \$000's	Artworks \$000's	Library Books \$000's	Leasehold Improvement \$000's	Right of use assets** \$000's	Total \$000's
At 1 January 2018										
- Cost	-	-	-	24,703	96,479	-	1,992	9,416	-	132,590
- Independent Valuation	239,370	287,131	25,397	-	-	6,135	-	-	-	558,033
- Murdoch Valuation	-	96	2,884	-	-	657	-	-	-	3,637
Net valuation correction	-	(5,506)	-	-	(59,057)	-	(582)	(1,930)	-	(5,506)
Accumulated depreciation and impairment	-	-	-	-	-	-	-	-	-	(61,569)
Net book amount	239,370	281,721	28,281	24,703	37,422	6,792	1,410	7,486	-	627,185
Year ended 31 December 2018										
Opening net book amount	239,370	281,721	28,281	24,703	37,422	6,792	1,410	7,486	-	627,185
Revaluation increment/(decrement)	(2,576)	(3,591)	618	-	-	134	-	-	-	(5,415)
Additions	-	-	175	16,985	10,789	381	417	-	-	28,747
Disposals	-	-	(316)	-	(316)	(10)	-	-	-	(326)
Transfers in / (out)	-	20,692	1,840	(29,322)	6,623	12	-	155	-	-
Transfers from investment property	-	-	-	(10)	-	-	-	-	-	(10)
Transfer to profit and loss	-	-	-	(251)	-	-	-	-	-	(251)
Transfer to software	-	-	-	(196)	-	-	-	-	-	(196)
Depreciation charge	-	(5,922)	(585)	-	(8,019)	-	(495)	(1,737)	-	(16,758)
Closing net book amount	236,794	292,900	30,329	11,909	46,499	7,309	1,332	5,904	-	632,976
At 31 December 2018										
- Cost	-	-	-	11,909	107,042	-	1,827	9,572	-	130,350
- Independent Valuation	236,794	292,561	29,215	-	-	7,278	-	-	-	565,848
- Murdoch Valuation	-	339	1,114	-	-	31	-	-	-	1,484
Accumulated depreciation and impairment	-	-	-	-	(60,543)	-	(495)	(3,668)	-	(64,706)
Net book amount	236,794	292,900	30,329	11,909	46,499	7,309	1,332	5,904	-	632,976
Year ended 31 December 2019										
Opening net book amount	236,794	292,900	30,329	11,909	46,499	7,309	1,332	5,904	-	632,976
Adoption of AASB 16	(167)	11,181	1,566	-	-	-	-	-	2,244	2,244
Revaluation increment/(decrement)	4,064	35	14	30,115	23,430	129	368	-	3,974	62,149
Additions	-	(199)	-	-	(589)	-	-	(1,928)	(907)	(3,623)
Disposals	-	953	(598)	(16,269)	10,114	-	-	5,800	-	-
Transfers in / (out)	-	18,904	3,424	(157)	302	-	-	-	-	22,630
Transfer from subsidiary	-	-	-	(2,694)	-	-	-	-	-	(157)
Transfers to profit or loss	-	-	-	-	-	-	-	-	-	-
Transfer to software	-	(5,875)	(594)	-	(9,425)	-	(462)	(2,200)	(1,509)	(2,694)
Depreciation charge	-	-	-	-	-	-	-	-	-	(20,065)
Closing net book amount	240,691	317,899	34,141	22,904	70,331	7,438	1,258	7,576	3,802	706,040
At 31 December 2019										
- Cost	-	-	11	22,904	133,046	160	1,720	8,621	4,404	170,866
- Independent Valuation	240,691	317,899	34,130	-	-	7,278	-	-	-	599,998
Accumulated depreciation and impairment	-	-	-	-	(62,715)	-	(462)	(1,045)	(602)	(64,824)
Net book amount	240,691	317,899	34,141	22,904	70,331	7,438	1,258	7,576	3,802	706,040

15 Property, plant and equipment

	Land \$000's	Buildings \$000's	Infrastructure \$000's	Construction in progress \$000's	Plant and equipment* \$000's	Artworks \$000's	Library Books \$000's	Leasehold Improvement \$000's	Right of use assets** \$000's	Total \$000's
Consolidated										
At 1 January 2018										
- Cost	-	-	-	24,703	96,999	1,992	-	2,909	-	126,603
- Independent Valuation	239,370	306,091	28,721	-	-	6,135	-	-	-	580,317
- Murdoch Valuation	-	104	2,884	-	-	657	-	-	-	3,645
Net valuation correction	-	(5,506)	-	-	(59,196)	-	(582)	-	-	(5,506)
Accumulated depreciation and impairment	-	-	-	-	-	-	-	(469)	-	(60,247)
Net book amount	239,370	300,689	31,605	24,703	37,803	8,784	(582)	2,440	-	644,812
Year ended 31 December 2018										
Opening net book amount	239,370	300,689	31,605	24,703	37,803	6,792	1,410	2,440	-	644,812
Revaluation increment / (decrement)	(2,576)	(3,721)	641	-	-	134	-	-	-	(5,522)
Additions	-	-	176	16,985	10,806	381	417	18	-	28,783
Disposals	-	-	-	-	(317)	(10)	-	-	-	(327)
Transfers in / (out)	-	20,710	1,840	(29,322)	6,623	12	-	137	-	-
Transfer from investment property	-	-	-	(10)	-	-	-	-	-	(10)
Transfer to profit and loss	-	-	-	(251)	-	-	-	-	-	(251)
Transfer to software	-	-	-	(196)	-	-	-	-	-	(196)
Depreciation charge	-	(6,301)	(653)	-	(8,071)	-	(495)	(205)	-	(15,725)
Foreign exchange differences	-	-	-	-	(5)	-	-	(15)	-	(20)
Closing net book amount	236,794	311,377	33,609	11,909	46,839	7,309	1,332	2,375	-	651,544
At 31 December 2018										
- Cost	-	-	-	11,909	107,575	-	1,827	3,065	-	124,376
- Independent Valuation	236,794	311,104	32,429	-	-	7,278	-	-	-	587,605
- Murdoch Valuation	-	273	1,180	-	-	31	-	-	-	1,484
Accumulated depreciation and impairment	-	-	-	-	(60,736)	-	(495)	(690)	-	(61,921)
Net book amount	236,794	311,377	33,609	11,909	46,839	7,309	1,332	2,375	-	651,544
Year ended 31 December 2019										
Opening net book amount	236,794	311,377	33,609	11,909	46,839	7,309	1,332	2,375	-	651,544
Adoption of AASB 16	(167)	11,913	1,840	-	-	-	-	-	920	920
Revaluation increment/(decrement)	4,064	35	14	30,114	23,465	129	388	86	-	13,586
Additions	-	(199)	-	-	(589)	-	-	-	-	(788)
Disposals	-	-	-	-	-	-	-	-	-	-
Transfers in / (out)	-	1,019	(664)	(16,268)	10,113	-	-	5,800	-	-
Transfer to profit or loss	-	-	-	(157)	-	-	-	-	-	(157)
Transfer to software	-	-	-	(2,694)	-	-	-	-	-	(2,694)
Foreign exchange differences	-	-	-	-	(2)	-	-	(5)	3	(4)
Depreciation charge	-	(6,246)	(658)	-	(9,456)	-	(462)	(618)	(873)	(18,313)
Closing net book amount	240,691	317,899	34,141	22,904	70,370	7,438	1,258	7,638	4,032	706,371
At 31 December 2019										
- Cost	-	-	11	22,903	133,240	160	1,720	8,951	4,902	171,887
- Independent Valuation	240,691	317,899	34,130	-	-	7,278	-	-	-	599,998
Accumulated depreciation and impairment	-	-	-	-	(62,869)	-	(462)	(1,313)	(870)	(65,514)
Net book amount	240,691	317,899	34,141	22,904	70,370	7,438	1,258	7,638	4,032	706,371

15 Property, plant and equipment

* Plant and equipment includes all operational assets.

** Disclosure per each class of right of use asset in note 15(a).

Items of property, plant and equipment, costing \$5,000 or more are measured initially at cost. Where an asset is acquired at nil or nominal cost, the cost is valued at its fair value at the date of acquisition. Items of property, plant and equipment costing less than \$5,000 are immediately expensed directly to the income statement (other than where the cost forms part of a group of similar items which are significant in total). Land, buildings, infrastructure, library books, motor vehicles and artworks have no minimum capitalisation limit.

Land, buildings, infrastructure and artworks (except for investment properties - refer to note 14) are shown at fair value, based on periodic, but at least triennial, valuations by external independent valuers, less subsequent depreciation for buildings. Any accumulated depreciation at the date of revaluation is eliminated against the gross carrying amount of the asset and the carrying amount is adjusted to the revalued amount of the asset. All other property, plant and equipment is stated at historical cost less depreciation. Historical cost includes expenditure that is directly attributable to the acquisition of the items.

Subsequent costs are included in the asset's carrying amount when it is probable that future economic benefits associated with the item will flow to the Group and the cost of the item can be measured reliably. All other repairs and maintenance are charged to the income statement during the financial period in which they are incurred (refer to note 9).

Construction in progress is stated at cost.

The net book value of library books is based on the cost of acquisitions for three years to the end of the current financial year. The University has adopted a 'rolling depreciation' methodology for library books, whereby acquisitions in the fourth year preceding the reporting year are charged to depreciation.

Depreciation

Land is not depreciated. Depreciation on the other assets is calculated using the straight-line method to allocate their cost or revalued amounts, net of their residual values, over their estimated useful lives, as follow:

Depreciable assets:

Computer equipment	25%
Other equipment	12.5%
Buildings and infrastructure	2%
Plant	5%
Motor vehicles	16.67%
Furniture and fittings	5% - 20%
Leasehold improvements	Over the lease terms
Right of use assets	Over the lease terms

Artworks are considered heritage assets and are anticipated to have very long and indefinite useful lives. Their service potential has not, in any material sense, been consumed during the reporting period. As such, no amount for depreciation has been recognised in respect of works of art.

Depreciation rates are reviewed at the end of each reporting period.

Impairment of assets

Property, plant and equipment are tested for any indication of impairment at the end of each reporting period. Where there is an indication of impairment, the recoverable amount is estimated. Where the recoverable amount is less than the carrying amount, the asset is considered impaired and is written down to recoverable amount.

For assets measured at cost, impairment loss is recognised in the income statement.

For assets measured at fair value, increases in the carrying amounts arising on revaluation are recognised, net of tax, in other comprehensive income and accumulated in equity under the heading of land, buildings and infrastructure. To the extent that the increase reverses a decrease previously recognised in profit or loss, the increase is first recognised in profit or loss. Decreases that reverse previous increases of the same asset class are also recognised in other comprehensive income to the extent of the remaining reserve attributable to the asset class. All other decreases are charged to the income statement.

(a). Right-of-use assets

Information about leases where the Group and University is a lessee is presented below:

	Consolidated		University	
	2019 \$000's	2018 \$000's	2019 \$000's	2018 \$000's
Buildings				
At 1 January 2019	725	-	2,049	-
Additions	3,439	-	3,431	-
Disposal	-	-	(907)	-
Depreciation charge	(718)	-	(1,354)	-
Foreign exchange differences	3	-	-	-
At 31 December 2019	3,449	-	3,219	-
Motor Vehicles				
At 1 January 2019	133	-	133	-
Additions	114	-	114	-
Depreciation charge	(77)	-	(77)	-
At 31 December 2019	170	-	170	-
Computer Equipment				
At 1 January 2019	62	-	62	-
Additions	62	-	62	-
Depreciation charge	(41)	-	(41)	-
At 31 December 2019	83	-	83	-
Other Equipment				
At 1 January 2019	-	-	-	-
Additions	367	-	367	-
Depreciation charge	(37)	-	(37)	-
At 31 December 2019	330	-	330	-
Total right-of-use assets	4,032	-	3,802	-

At inception of a contract, the Group assesses whether a contract is, or contains a lease. A contract is, or contains a lease if the contract conveys a right to control the use of an identified asset for a period of time in exchange for a consideration.

The Group assesses whether:

- (a) The contract involves the use of an identified asset - the asset may be explicitly or implicitly specified in the contract. The capacity proportion of larger assets is considered an identified asset if the portion is physically distinct or if the portion represents substantially all of the capacity of the asset. The asset is not considered an identified asset, if the supplier has the substantive right to substitute the asset throughout the period of use.
- (b) The customer has the right to obtain substantially all of the economic benefits from the use of the asset throughout the period of use.
- (c) The customer has the right to direct the use of the asset throughout the period of use. The customer is considered to have the right to direct the use of the asset only if:
 - i. The customer has the right to direct how and for what purpose the identified asset is used throughout the period of use; or
 - ii. The relevant decisions about how and for what purposes the asset is used is predetermined and the customer has the right to operate the asset, or the customer designed the asset in a way that predetermines how and for what purpose the asset will be used throughout the period of use.

In contracts where the Group is a lessee, it recognises a right-of-use asset and a lease liability at the commencement date of the lease, unless the short-term or low-value exemption is applied. The Group has elected not to recognise right-of-use assets and lease liabilities for short-term leases i.e. leases with a lease term of 12 months or less and leases of low-value assets i.e., when the value of the leased asset when new is \$5,000 or less. The Group recognises the lease payments associated with these leases as expense on a straight-line basis over the lease term.

Initial recognition and subsequent measurement

A right-of-use asset is initially measured at cost comprising the initial measurement of the lease liability adjusted for any lease payments made before the commencement date (reduced by lease incentives received), plus initial direct costs incurred in obtaining the lease and an estimate of costs to be incurred in dismantling and removing the underlying asset, restoring the site on which it is located or restoring the underlying asset to the condition required by the terms and conditions of the lease.

A right-of-use asset associated with land and buildings is subsequently measured at fair value. All other property, plant and equipment are measured as described in the accounting policy for property, plant and equipment in Note 15.

16 Intangible assets

	Consolidated		University	
	2019	2018	2019	2018
	\$000's	\$000's	\$000's	\$000's
Electronic library materials	13,569	13,091	13,569	13,091
Software and software licences	3,633	1,954	3,633	1,954
Total intangible assets	17,202	15,045	17,202	15,045

	Electronic Library Materials	Software and Software Licences	Total
	\$000's	\$000's	\$000's
At 1 January 2018			
Cost	23,498	4,166	27,664
Accumulated amortisation and impairment	(11,137)	(1,395)	(12,532)
Net book amount	12,361	2,771	15,132
Year ended 31 December 2018			
Opening net book amount	12,361	2,771	15,132
Additions	3,029	212	3,241
Amortisation Charges	(2,299)	(1,029)	(3,328)
Closing net book amount	13,091	1,954	15,045
At 31 December 2018			
Cost	24,505	4,378	28,883
Accumulated amortisation and impairment	(11,414)	(2,424)	(13,838)
Net book amount	13,091	1,954	15,045
Year ended 31 December 2019			
Opening net book amount	13,091	1,954	15,045
Additions	2,879	37	2,916
Transfer from construction in progress	-	2,694	2,694
Amortisation Charges	(2,401)	(1,052)	(3,453)
Closing net book amount	13,569	3,633	17,202
At 31 December 2019			
Cost	25,444	7,109	32,553
Accumulated amortisation and impairment	(11,875)	(3,476)	(15,351)
Net book amount	13,569	3,633	17,202

Intangible assets are initially recognised at cost. For assets acquired at no cost or for nominal cost, the cost is their fair value at the date of acquisition.

The cost model is applied for subsequent measurement requiring the asset to be carried at cost less any accumulated amortisation and accumulated impairment losses.

Amortisation for intangible assets with finite useful lives is calculated for the period of the expected benefit (estimated useful life which is reviewed annually) on the straight line basis. All intangible assets controlled by the Group have a finite useful life and zero residual value.

Electronic library materials have no minimum capitalisation limit. The cost of utilising the assets is expensed (amortised) over their expected useful life of 10 years.

Acquisition of computer software and software licences costing \$5,000 or more and internally generated software costing \$10,000 or more are capitalised. The cost of utilising the assets is expensed (amortised) over their useful life. Computer software and software licences have an expected useful life of 4 years. Costs incurred below these thresholds are immediately expensed directly to the income statement.



17 Trade and other payables

		Consolidated		University	
	Note	2019 \$000's	2018 \$000's	2019 \$000's	2018 \$000's
Current					
Trade payables		4,474	5,640	3,471	4,766
Current tax liability		59	69	-	-
Accruals and other payables		19,746	19,120	18,983	18,976
OS-HELP liability to Australian Government	32(g)	457	215	457	215
Total current trade and other payables		24,736	25,044	22,911	23,957
Non-current					
Other payables		6	6	6	6
Total non-current trade and other payables		6	6	6	6
Total trade and other payables		24,742	25,050	22,917	23,963

The carrying amounts of the Group's and University's payables are denominated in Australian currency only.

Trade and other payables represent liabilities for goods and services provided to the Group prior to the end of financial year, which are unpaid. The amounts are unsecured and are usually paid within 30 days of recognition.

18 Borrowings

	Consolidated		University	
	2019	2018	2019	2018
	\$000's	\$000's	\$000's	\$000's
Current				
Secured				
Finance lease liabilities	-	66	-	66
Lease liabilities	1,188	-	955	-
Western Australian Treasury Corporation *	398	372	398	372
Total current secured borrowings	1,586	438	1,353	438
Total current borrowings	1,586	438	1,353	438
Non-current				
Secured				
Finance lease liabilities	-	13	-	13
Lease liabilities	2,713	-	2,713	-
Western Australian Treasury Corporation *	3,340	3,738	3,340	3,738
Total non-current secured borrowings	6,053	3,751	6,053	3,751
Total non-current borrowings	6,053	3,751	6,053	3,751
Total borrowings	7,639	4,189	7,406	4,189

* Loan from Western Australian Treasury Corporation is as follows:

Peel Campus loan 1: \$3,738,127 (2018: \$4,110,297) which is secured by a Guarantee of the Treasurer of the State, interest bearing at a fixed rate of 6.69% and repayable in quarterly instalments by April 2027.

Borrowings

Borrowings are initially recognised at fair value, net of transaction costs incurred. Borrowings are subsequently measured at amortised cost. Any difference between the proceeds (net of transaction costs) and the redemption amount is recognised in the income statement over the period of the borrowings using the effective interest method. Fees paid on the establishment of loan facilities, which are not an incremental cost relating to the actual draw-down of the facility, are recognised as prepayments and amortised on a straight-line basis over the term of the facility.

Borrowings are removed from the statement of financial position when the obligation specified in the contract is discharged, cancelled or expired.

Borrowings are classified as current liabilities unless the Group has an unconditional right to defer settlement of the liability for at least 12 months after the end of the reporting period and does not expect to settle the liability for at least 12 months after the end of the reporting period.

Borrowing costs incurred for the construction of any qualifying assets are capitalised during the period of time that is required to complete and prepare the asset for its intended use or sale. Other borrowing costs are expensed.

Lease liabilities

Lease liabilities are initially measured at the present value of unpaid lease payments at the commencement date of the leases. To calculate the present value, the unpaid lease payments are discounted using the incremental borrowing rate at the commencement date of the lease. Lease payments included in the measurement of lease liabilities comprise:

- Fixed payments, including in-substance fixed payments;
- Variable lease payments that depend on an index or a rate, initially measured using the index or rate as at the commencement date (e.g. payments varying on account of changes in CPI);
- Amounts expected to be payable by the lessee under residual value guarantees;
- The exercise price of a purchase option if the Group is reasonably certain to exercise that option; and
- Payments of penalties for terminating the lease, if the lease term reflects the lessee exercising an option to terminate the lease.

For a contract that contains a lease component and one or more additional lease or non-lease components, the Group allocates the consideration in the contract to each lease component on the basis of the relative stand-alone price of the lease component and the aggregate stand-alone price of the non-lease components.

Subsequently, the lease liability is measured at amortised cost using the effective interest rate method resulting in interest expense being recognised as a borrowing cost in the income statement. The lease liability is remeasured when there are changes in future lease payments arising from a change in an index or rate with a corresponding adjustment to the right-of-use asset.

18 Borrowings

(a). Assets pledged as security

The carrying amounts of assets pledged as security for current and non-current borrowings are:

	Consolidated		University	
	2019 \$000's	2018 \$000's	2019 \$000's	2018 \$000's
Non-current assets				
<i>Finance leases</i>				
Plant and equipment	-	155	-	155
Total assets pledged as security	-	155	-	155

(b). Financing arrangements

	Consolidated		University	
	2019 \$000's	2018 \$000's	2019 \$000's	2018 \$000's
Facilities				
Hire purchase facility	1,000	3,000	1,000	3,000
Western Australian Treasury Corporation loan facility	100,000	100,000	100,000	100,000
	101,000	103,000	101,000	103,000
Facilities utilised at reporting date				
Asset finance (Finance leases)	-	79	-	79
Western Australian Treasury Corporation loan facility	3,738	4,110	3,738	4,110
	3,738	4,189	3,738	4,189
Facilities not utilised at reporting date				
Asset finance (Finance Leases)	1,000	2,921	1,000	2,921
Western Australian Treasury Corporation loan facility	96,262	95,890	96,262	95,890
	97,262	98,811	97,262	98,811

In January 2018 the University signed an agreement with Western Australia Treasury Corporation (WATC) to increase its loan facility limit to \$100m. Of this facility, \$60m is available for immediate drawdown with the balance subject to the University meeting certain financial conditions. The increase in the loan facility limit is for the purpose of funding the University's capital works and acquisition of capital assets. The WATC loan facility is secured with a Treasurer's Guarantee and will be managed in accordance with the University's Debt Management Policy.

The carrying amounts of borrowings are denominated in Australian dollars.

For an analysis of the sensitivity of borrowings to interest rate risk and foreign exchange risk refer to note 28.

(c). Reconciliation of liabilities arising from financing activities

	2018 Carrying amount \$000's	Cash flows \$000's	Non-cash changes			2019 Carrying amount \$000's
			Adoption of AASB 16 \$000's	Transfer \$000's	Foreign exchange \$000's	
Long-term borrowings	3,738	-	-	(398)	-	3,340
Short-term borrowings	372	(372)	-	398	-	398
Finance lease liabilities	79	(79)	-	-	-	-
Lease liabilities	-	(689)	4,579	-	11	3,901
Total liabilities from financing activities	4,189	(1,140)	4,579	-	11	7,639

19 Provisions

	Consolidated		University	
	2019 \$000's	2018 \$000's	2019 \$000's	2018 \$000's
Current provisions expected to be settled within 12 months				
Employee benefits:				
Annual leave	10,788	9,598	10,727	9,560
Long service leave	2,284	1,475	2,280	1,472
Employment on-costs	1,010	831	1,010	831
Other provisions:				
Management fees - St Ives Retirement Village	14,621	14,123	-	-
Other provisions	2,177	3,886	2,086	3,851
	30,880	29,913	16,103	15,714
Current provisions expected to be settled after more than 12 months				
Annual leave	3,824	3,443	3,802	3,429
Long service leave	13,826	13,963	13,797	13,947
Employment on-costs	2,250	2,384	2,250	2,384
	19,900	19,790	19,849	19,760
Total current provisions	50,780	49,703	35,952	35,474
Non-current				
Employee benefits:				
Long service leave	11,889	11,245	11,851	11,213
Employment on-costs	1,730	1,733	1,730	1,733
Other provisions	419	75	419	75
Total non-current provisions	14,038	13,053	14,000	13,021
Total provisions	64,818	62,756	49,952	48,495

19 Provisions

Movements in other provisions

Movements in each class of provision during the financial year, other than annual leave and long service leave, are set out below:

	Consolidated		University	
	2019	2018	2019	2018
	\$000's	\$000's	\$000's	\$000's
Employment on-costs provision				
Balance at beginning of year	4,948	3,915	4,948	3,915
Additional provision	897	1,687	897	1,687
Amounts used	(855)	(654)	(855)	(654)
Carrying amount at end of period	4,990	4,948	4,990	4,948
Management fees				
Balance at beginning of year	14,123	14,018	-	-
Additional provision	1,049	1,100	-	-
Amounts used	(551)	(995)	-	-
Carrying amount at end of period	14,621	14,123	-	-
Other				
Balance at beginning of year	3,961	1,900	3,926	1,867
Additional provisions	1,415	3,539	1,359	3,537
Amounts used	(1,424)	(1,300)	(1,424)	(1,300)
Unused amount reversed	(1,356)	(178)	(1,356)	(178)
Carrying amount at end of period	2,596	3,961	2,505	3,926

19 Provisions

Provisions are liabilities of uncertain timing or amount and are recognised where there is a present legal or constructive obligation as a result of a past event and it is probable that an outflow of resources will be required to settle the obligation and the amount can be reliably estimated. Provisions are reviewed at each reporting period.

Employee benefits

All annual leave and long service leave provisions are in respect of employees; services up to the end of the reporting period.

(i) Annual Leave

Annual leave is not expected to be settled wholly within twelve months after the end of the reporting period and is therefore considered to be 'other long-term employee benefits'. The annual leave liability is recognised and measured at the present value or amounts expected to be paid when the liabilities are settled using the remuneration rate expected to apply at the time of settlement.

When assessing expected future payments consideration is given to expected future wage and salary levels including non-salary components such as employer superannuation contributions, as well as the experience of employee departures and periods of service. The expected future payments are discounted using market yields at the end of the reporting period on national government bonds with terms to maturity that match, as closely as possible, the estimated future cash outflows.

The provision for annual leave is classified as a current liability as the Group does not have an unconditional right to defer settlement of the liability for at least twelve months after the end of the reporting period.

(ii) Long service leave

Long service leave is not expected to be settled wholly within twelve months after the end of the reporting period is recognised and measured at the present value of amounts expected to be paid when the liabilities are settled using the remuneration rate expected to apply at the time of settlement.

When assessing expected future payments consideration is given to expected future wage and salary levels including non-salary components such as employer superannuation contributions, as well as the experience of employee departures and periods of service. The expected future payments are discounted using market yields at the end of the reporting period on non-financial corporate bonds with terms to maturity that match, as closely as possible, the estimated future cash outflows.

(iii) Retirement benefit obligations

The employees of the Group are entitled to benefits on retirement from superannuation plans elected by the employees. These plans incorporate defined contribution sections only as per AASB 119 'Employee benefits'.

Obligations for contributions to defined contribution plans are recognised as an expense in the income statement as incurred.

(iv) Employee on-costs

Employee on-costs, including workers' compensation insurance, are not employee benefits and are recognised separately as liabilities and expenses when the employment to which they relate has occurred.

(v) Termination benefits

Termination benefits are payable when employment is terminated before the normal retirement date, or when an employee accepts an offer of benefits in exchange for the termination of employment. The Group recognises the expense and liability for termination benefits either when it can no longer withdraw the offer of those benefits or when it has recognised costs for restructuring within the scope of AASB137 that involves the payment of termination benefits. The expense and liability are recognised when the Group is demonstrably committed to either terminating the employment of current employees according to a detailed formal plan without possibility of withdrawal or providing termination benefits as a result of an offer made to encourage voluntary redundancy.

Termination benefits are measured on initial recognition and subsequent changes are measured and recognised in accordance with the nature of the employee benefit. Benefits expected to be settled wholly within 12 months are measured at the undiscounted amount expected to be paid. Benefits not expected to be settled before 12 months after the end of the reporting period are discounted to present value.

20 Other liabilities

	Consolidated		University	
	2019	2018	2019	2018
	\$000's	\$000's	\$000's	\$000's
Current				
Income received in advance	34,565	41,031	16,073	22,662
Australian government unspent financial assistance	37	30	37	30
Resident loans*	191,013	194,778	-	-
Total current other liabilities	225,615	235,839	16,110	22,692
Contract liabilities	25,986	-	25,986	-
Total current contract and other liabilities	251,601	235,839	42,096	22,692
* Resident loans obligation	255,062	256,448	-	-
Less: Deferred Management Fees	(64,049)	(61,670)	-	-
	191,013	194,778	-	-

Contract liabilities

A contract liability is the obligation to transfer goods or services to a customer. Where the Group has received consideration or payment is due before the Group transfers goods or services to the customer, a contract liability is recognised. Contract liabilities are recognised as revenue as the Group performs its obligations under the contract.

Resident loans

Resident loans, relating to the St Ives Retirement Village, are measured at the principal amount, plus the residents' share of any change in the market value of the underlying property at year end date less the value of the deferred management fee receivable.

Resident loans are non-interest bearing and are payable at the end of the resident contract. In most cases this is greater than 12 months, however they are classified as current liabilities because the company does not have an unconditional right to defer settlement.

In practice, the rate at which the company's retirement residents vacate their units, and hence the rate at which the resident loans will fall due for repayment can be estimated on the basis of statistical tables.

Deferred management fee

Deferred management fee ("DMF") receivable represents the contractual amount receivable with reference to the underlying resident contract. Murdoch Retirement Service Pty Ltd has a contractual right of offset of the DMF receivable against the relevant resident loan. Resident loans obligation and DMF receivable are recognised on a net basis due to the right of offset.

21 Equity

Equity represents the residual interest in net assets.

	Consolidated		University	
	2019	2018	2019	2018
	\$000's	\$000's	\$000's	\$000's
Reserves				
Land, buildings and infrastructure	373,735	360,149	373,735	356,365
Equity instruments designated at fair value through OCI	39,911	23,295	39,911	23,295
Hedging reserve - cash flow hedges	-	57	-	57
Foreign exchange translation reserve	(376)	(102)	-	-
Total reserves	413,270	383,399	413,646	379,717

Movement during the year:

	Consolidated		University	
	2019	2018	2019	2018
	\$000's	\$000's	\$000's	\$000's
Reserves				
Balance at beginning of year	383,399	381,247	379,717	377,433
Land, buildings and infrastructure	13,586	(5,522)	12,580	(5,415)
Dissolution of Murdoch College Properties operations	-	-	4,790	-
Equity instruments designated at fair value through OCI	16,616	7,604	16,616	7,604
Hedging reserve - cash flow hedges	(57)	95	(57)	95
Foreign exchange translation reserve	(274)	(25)	-	-
Balance at end of year	413,270	383,399	413,646	379,717

Retained earnings

	Consolidated		University	
	2019	2018	2019	2018
	\$000's	\$000's	\$000's	\$000's
Retained earnings at the beginning of the financial year	438,430	426,069	648,005	630,936
Retrospective changes	-	(8,966)	-	(8,966)
Effect of adoption of new accounting standard	(18,280)	5,551	(18,280)	5,551
Balance at the beginning of the financial year (restated)	420,150	422,654	629,725	627,521
Net result for the period	24,294	15,603	19,904	9,781
Restatement of prior year error	-	173	-	173
Transfer to retained earnings - subsidiary ^{#1#2}	-	-	4,998	10,530
Retained earnings at end of the financial year	444,444	438,430	654,627	648,005

Land, buildings and infrastructure

This reserve is used to account for the increases or decreases in the value of assets as a result of revaluations.

Equity instruments designated at fair value through OCI

This reserve is used to account for increases or decreases in the value of investment in equity instruments designated at fair value through other comprehensive income.

Hedging reserve cash flow hedges

Forward exchange contracts are entered into as hedges to avoid or minimise possible adverse financial effects of movements in exchange rates. Such derivative instruments are stated at fair value. Changes in fair value of derivative financial instruments that are designated and effective as hedges of future cash flows are recognised directly in equity.

Foreign exchange translation reserve

This represents foreign exchange differences arising on translation of the foreign subsidiary.

^{#1} Murdoch University Foundation and Murdoch University Veterinary Trust were wound up on 4 July 2018. The transfer relates to the carrying value of the net assets of the wound up subsidiaries recorded directly in equity.

^{#2} Murdoch College Properties Pty Ltd dissolved its intercompany arrangements with Murdoch University at 31 December 2019 and subsequently transferred its net assets to Murdoch University on 31 December 2019.

22 Reconciliation of net result after income tax to net cash provided by / (used in) operating activities

	Consolidated		University	
	2019	2018	2019	2018
	\$000's	\$000's	\$000's	\$000's
Net result after income tax	24,294	15,603	19,904	9,781
Adjustments for:				
Depreciation and amortisation	21,766	19,055	23,518	20,087
Gain on disposal of property, plant and equipment	210	(49)	210	(49)
Net loss / gains on other financial assets	(7,308)	1,451	(6,835)	1,005
Fair value loss on investment property	3,126	4,090	3,126	4,090
Share of net results of associates accounted for using the equity method	5	34	5	34
Donations	(107)	(308)	(107)	(308)
Changes in assets and liabilities:				
(Decrease) / Increase in receivables	(1,201)	(9,501)	(2,486)	(1,639)
(Increase) / Decrease in inventories	(43)	228	(47)	230
(Increase) / Decrease in other assets	(2,467)	(105)	(2,453)	944
Decrease / (Increase) in deferred tax assets	149	(81)	-	-
Increase in payables	3,626	3,641	2,955	2,634
(Decrease) / Increase in provisions	(1,444)	4,093	(1,994)	3,999
Decrease in resident loans	(3,765)	(3,052)	-	-
Increase in other liabilities	923	8,339	778	7,840
Net cash provided by operating activities	37,764	43,438	36,574	48,648

23 Remuneration of auditors

During the year, the following fees were paid or payable for services provided by the auditor of the parent entity:

	Consolidated		University	
	2019	2018	2019	2018
	\$	\$	\$	\$
Audit of Financial Statements				
Fees paid to Office of the Auditor General	325,179	340,000	280,304	272,600
Fees paid to BDO Corporate Services Pte Ltd Singapore	27,563	26,503	-	-
Total paid for audit	352,742	366,503	280,304	272,600

24 Contingent assets and contingent liabilities

There are no known contingent assets which are likely to materially affect the Group's financial position as at reporting date.

From time to time claims are made against the University for various matters including breach of contract. All claims are investigated by the University and assessed on their merits as to whether they are spurious in nature or worth defending. The University will only book a liability where there is a present legal, equitable or constructive obligation and will only disclose a contingent liability where the probability of an outflow is not remote.

25 Events subsequent to reporting date

The impact of the Covid-19 virus and the related extended travel ban on future student income remains to be quantified. There is no material impact arising from Covid-19 virus on the 2019 financial position of the Group.

There are no other known matters or circumstances have arisen since the end of the reporting date which significantly affect or could significantly affect the operations or results of the Group.

26 Commitments for expenditure

The following commitments are GST inclusive.

(a). Capital commitments

	Consolidated		University	
	2019	2018	2019	2018
	\$000's	\$000's	\$000's	\$000's
Capital expenditure contracted for at the reporting date but not recognised as liabilities is as follows:				
Within one year	10,481	8,492	10,481	8,492
Total capital commitments	10,481	8,492	10,481	8,492

(b). Lease commitments

Lease commitments for 2019 are not disclosed following the implementation of AASB 16, with leases reported as Right of use assets at note 15.

	Consolidated	University
	2018	2018
	\$000's	\$000's
(i) Operating leases		
Commitments relating to non-cancellable operating leases are as follows:		
Within one year	2,285	2,006
Later than one year but not later than five years	1,886	1,653
Total operating lease commitments	4,171	3,659
(ii) Finance leases		
Commitments relating to finance leases are as follows:		
Within one year	68	68
Later than one year but not later than five years	13	13
	81	81
Less: Future finance charges	(2)	(2)
Finance lease liabilities	79	79
Lease liabilities provided for in the financial statements:		
Current	66	66
Non-current	13	13
Total lease liabilities	79	79

The weighted average interest rate implicit in the finance leases for 2018 is 4.51%.

(c). Other expenditure commitments

	Consolidated		University	
	2019	2018	2019	2018
	\$000's	\$000's	\$000's	\$000's
Commitments relating to other expenditure are as follows:				
Within one year	2,355	2,375	2,355	2,375
Later than one year but not later than five years	4,267	5,081	4,267	5,081
Later than five years	582	582	582	582
Total other expenditure commitments	7,204	8,038	7,204	8,038

27 Key management personnel compensation

The University has determined that key management personnel include Senate members and senior officers of the University. Senate members who are employed as staff at the University have their compensation disclosed in respect of their individual employment conditions in their capacity as employees.

Total compensation of key management personnel for the reporting period is presented within the following bands:

	Senate members		Senior officers	
	2019	2018	2019	2018
\$0 - \$10,000	9(#)	15	-	-
\$10,001 - \$20,000	2	-	-	-
\$20,001 - \$30,000	3(#)	-	-	-
\$30,001 - \$40,000	1	-	-	-
\$40,001 - \$50,000	-	-	-	1(#)
\$50,001 - \$60,000	-	2	-	-
\$60,001 - \$70,000	-	-	1(#)	-
\$70,001 - \$80,000	-	-	-	1(#)
\$80,001 - \$90,000	-	-	-	1(#)
\$90,001 - \$100,000	-	-	-	1(#)
\$100,001 - \$110,000	-	-	-	1(#)
\$110,001 - \$120,000	-	-	-	1(#)
\$120,001 - \$130,000	-	-	-	1(#)
\$130,001 - \$140,000	1	-	-	-
\$140,001 - \$150,000	-	-	-	1(#)
\$150,001 - \$160,000	-	1	-	-
\$160,001 - \$170,000	1	-	-	-
\$170,001 - \$180,000	-	-	-	2(#)
\$180,001 - \$190,000	-	-	1	-
\$190,001 - \$200,000	1	-	-	1(#)
\$200,001 - \$210,000	-	-	-	1
\$210,001 - \$220,000	-	-	-	1(#)
\$220,001 - \$230,000	-	-	1	-
\$230,001 - \$240,000	-	-	-	1
\$240,001 - \$250,000	-	-	-	1
\$250,001 - \$260,000	-	-	1	1
\$260,001 - \$270,000	-	-	-	1
\$270,001 - \$280,000	-	-	-	1
\$280,001 - \$290,000	-	-	1	-
\$290,001 - \$300,000	-	-	-	1
\$300,001 - \$310,000	-	-	-	1(#)
\$310,001 - \$320,000	-	-	1	-
\$320,001 - \$330,000	-	-	1	-
\$330,001 - \$340,000	-	-	-	1
\$340,001 - \$350,000	-	-	-	1
\$350,001 - \$360,000	-	-	1	1
\$360,001 - \$370,000	-	-	-	1
\$370,001 - \$380,000	-	-	-	1
\$380,001 - \$390,000	-	-	-	1
\$390,001 - \$400,000	-	-	-	1
\$400,001 - \$410,000	-	-	-	1
\$410,001 - \$420,000	-	-	-	1
\$420,001 - \$430,000	-	-	-	1
\$430,001 - \$440,000	-	-	-	1
\$440,001 - \$450,000	-	-	-	1
\$450,001 - \$460,000	-	-	1	1
\$460,001 - \$470,000	-	-	-	1
\$470,001 - \$480,000	-	-	-	1
\$480,001 - \$490,000	-	-	1	-
\$490,001 - \$500,000	-	-	-	1
\$500,001 - \$510,000	-	-	1	-
\$510,001 - \$520,000	-	-	1	-
\$520,001 - \$530,000	-	1	-	-
\$530,001 - \$540,000	-	-	-	-
\$540,001 - \$550,000	-	-	-	-
\$550,001 - \$560,000	-	-	-	-
\$560,001 - \$570,000	-	-	-	-
\$570,001 - \$580,000	-	-	-	-
\$580,001 - \$590,000	-	-	-	-
\$590,001 - \$600,000	-	-	-	-
\$600,001 - \$610,000	-	-	-	-
\$610,001 - \$620,000	-	-	-	-
\$620,001 - \$630,000	-	-	-	-
\$630,001 - \$640,000	-	-	-	-
\$640,001 - \$650,000	-	-	-	-
\$650,001 - \$660,000	-	-	-	-
\$660,001 - \$670,000	-	-	-	-
\$670,001 - \$680,000	-	-	-	-
\$680,001 - \$690,000	-	-	-	-
\$690,001 - \$700,000	-	-	-	-
\$700,001 - \$710,000	-	-	-	-
\$710,001 - \$720,000	-	-	-	-
\$720,001 - \$730,000	-	-	-	-
\$730,001 - \$740,000	-	-	-	-
\$740,001 - \$750,000	-	-	-	-
\$750,001 - \$760,000	-	-	-	-
\$760,001 - \$770,000	-	-	-	-
\$770,001 - \$780,000	-	-	-	-
\$780,001 - \$790,000	-	-	-	-
\$790,001 - \$800,000	-	-	-	-
\$800,001 - \$810,000	-	-	-	-
\$810,001 - \$820,000	-	-	-	-
\$820,001 - \$830,000	-	-	-	-
\$830,001 - \$840,000	-	-	-	-
\$840,001 - \$850,000	-	-	-	-
\$850,001 - \$860,000	-	-	-	-
\$860,001 - \$870,000	-	-	-	-
\$870,001 - \$880,000	-	-	-	-
\$880,001 - \$890,000	-	-	-	-
\$890,001 - \$900,000	-	-	-	-
\$900,001 - \$910,000	-	-	-	-
\$910,001 - \$920,000	-	-	-	-
\$920,001 - \$930,000	-	-	-	-
\$930,001 - \$940,000	-	-	-	-
\$940,001 - \$950,000	-	-	-	-
\$950,001 - \$960,000	-	-	-	-
\$960,001 - \$970,000	-	-	-	-
\$970,001 - \$980,000	-	-	-	-
\$980,001 - \$990,000	-	-	-	-
\$990,001 - \$1,000,000	1	-	-	-
	19	19	9	16

(#) Includes employees who became or ceased to be a senior officer during the year.

	Senate members		Senior officers	
	2019 \$000's	2018 \$000's	2019 \$000's	2018 \$000's
Short-term employee benefits	1,593	1,309	3,168	4,270
Post-employment benefits	228	206	403	565
Other long-term benefits	19	60	95	125
Total key management personnel compensation	1,840	1,575	3,666	4,960

28 Financial Risk Management

The Group's activities expose it to a variety of financial risks: market risk (including currency risk, fair value interest rate risk, cash flow interest rate risk and equity price risk), credit risk and liquidity risk. The Group's overall risk management program focuses on the unpredictability of financial markets and seeks to minimise potential adverse effects on the financial performance of the Group.

(a). Market risk

(i) Foreign exchange risk

Foreign exchange risk arises when future commercial transactions and recognised assets and liabilities are denominated in a currency that is not the Group's functional currency. The Group does have exposure to the international market and therefore is exposed to foreign exchange risk. The Group setup a US Dollar bank account in 2019 to minimise its foreign exchange risk arising from the anticipated receipts and payment of USD.

(ii) Equity price risk

A portion of the Group's investments are exposed to fluctuations in the prices of equity securities. The Group's investment policy provides strategies for the minimisation of price risk with the diversification of that risk through various investment managers and on-going monitoring by the Resources Committee to ensure there is no concentration of risk exposure in any one area.

(iii) Cash flow and fair value interest rate risk

The Group is exposed to cash flow interest rate risk as it borrows and invests funds at floating interest rates. The risk is managed through maintaining an appropriate mix of borrowings and investments at fixed and floating rates, maintaining an appropriate mix of financial institutions to invest with and setting limits in terms of borrowings and investments.

(iv) Summarised sensitivity analysis

The following tables summarise the sensitivity of the Group's financial assets and financial liabilities to interest rate risk, foreign exchange risk and equity price risk.

31 December 2019	Carrying amount \$000's	Interest rate risk				Foreign exchange risk				Equity price risk			
		-0.5%		+0.5%		-10%		+10%		-10%		+10%	
		Result	Equity	Result	Equity	Result	Equity	Result	Equity	Result	Equity	Result	Equity
		\$000's	\$000's	\$000's	\$000's	\$000's	\$000's	\$000's	\$000's	\$000's	\$000's	\$000's	\$000's
Financial assets													
Cash and Cash Equivalents - at bank	92,814	(464)	(464)	464	464	(114)	(114)	114	114	-	-	-	-
Bank Deposits	686	(3)	(3)	3	3	-	-	-	-	-	-	-	-
Amount receivable in foreign currency	357	-	-	-	-	(36)	(36)	36	36	-	-	-	-
Other financial assets													
Listed securities	3,311	-	-	-	-	-	-	-	-	(326)	(326)	326	326
Unlisted securities	45,472	-	-	-	-	-	-	-	-	(4,547)	(4,547)	4,547	4,547
Managed funds	70,998	-	-	-	-	-	-	-	-	(7,100)	(7,100)	7,100	7,100
Total increase / (decrease)		(467)	(467)	467	467	(150)	(150)	150	150	(11,973)	(11,973)	11,973	11,973

28 Financial Risk Management

(a). Market risk

31 December 2018		Interest rate risk				Foreign exchange risk				Equity price risk			
		-0.5%		+0.5%		-10%		+10%		-10%		+10%	
Carrying amount	Result	Equity	Result	Equity	Result	Equity	Result	Equity	Result	Equity	Result	Equity	
	\$000's	\$000's	\$000's	\$000's	\$000's	\$000's	\$000's	\$000's	\$000's	\$000's	\$000's	\$000's	
Financial assets													
Cash and Cash Equivalents - at bank	44,086	(220)	(220)	220	220	-	-	-	-	-	-	-	
Bank Deposits	76,516	(383)	(383)	383	383	-	-	-	-	-	-	-	
Amount receivable in foreign currency	119	-	-	-	-	(12)	(12)	12	12	-	-	-	
Other financial assets													
Listed securities	1,483	-	-	-	-	-	-	-	-	(148)	(148)	148	
Unlisted securities	28,856	-	-	-	-	-	-	-	-	(2,886)	(2,886)	2,886	
Managed funds	63,748	-	-	-	-	-	-	-	-	(6,375)	(6,375)	6,375	
Total increase / (decrease)		(603)	(603)	603	603	(12)	(12)	12	12	(9,409)	(9,409)	9,409	

(b). Credit risk

The Group's maximum exposure to credit risk at year end date in relation to each class of recognised financial asset is the carrying amount of those assets indicated in the statement of financial position. There are no significant concentrations of credit risk, whether through exposure to individual customers, specific industry sectors and/or regions. Notes 12 and 13 provide further details.

(c). Liquidity risk

The following tables summarise the maturity of the Group's financial assets and financial liabilities:

	Carrying amount		Contractual cash flows		Less than 1 year		1 to 5 years		5+ years	
	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018
	\$000's	\$000's	\$000's	\$000's	\$000's	\$000's	\$000's	\$000's	\$000's	\$000's
Financial Assets:										
Cash and cash equivalents	-	-	-	-	-	-	-	-	-	-
Cash at bank	22,760	28,688	22,760	28,688	22,760	28,688	-	-	-	-
Bank Term Deposits	70,054	15,398	70,054	15,398	70,054	15,398	-	-	-	-
Receivables	23,789	21,743	23,789	21,743	23,743	21,517	46	226	-	-
Total Financial Assets	116,603	65,829	116,603	65,829	116,557	65,603	46	226	-	-
Financial Liabilities:										
Borrowings	7,639	4,189	8,828	5,672	1,852	732	5,186	2,658	1,790	2,282
Payables	24,742	25,050	24,742	25,050	24,736	25,044	6	6	-	-
Resident loan	191,013	194,778	191,013	194,778	191,013	194,778	-	-	-	-
Total Financial Liabilities	223,394	224,017	224,583	225,500	217,601	220,554	5,192	2,664	1,790	2,282

29 Fair value measurement

(a). Fair value measurements

The fair value of financial instruments must be estimated for recognition and measurement or for disclosure purposes.

Initial recognition and measurement of financial instruments is at fair value which normally equates to the transaction cost or the face value. Subsequent measurement is at amortised cost using the effective interest method or at fair value as applicable.

Due to the short-term nature of the current receivable their carrying value approximates their fair value and based on credit history it is expected that the receivables that are neither past due nor impaired will be received when due.

The Group measures and recognise the following assets and liabilities at fair value on a recurring basis:

- * Financials assets at fair value through profit and loss
- * Investments in equity instruments designated at fair value through other comprehensive income
- * Derivative financial instruments
- * Land, buildings and infrastructure
- * Investment properties
- * Artworks

(b). Fair value hierarchy

- Level 1 quoted prices (unadjusted) in active markets for identical assets or liabilities.
- Level 2 inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly.
- Level 3 inputs for the asset or liability that are not based on observable market data (unobservable inputs).

(i) Recognised fair value measurements

Fair value measurements recognised in the statement of financial position are categorised into the following levels at 31 December 2019 and 2018.

	Note	Carrying amount \$000's	Fair value \$000's	Level 1 \$000's	Level 2 \$000's	Level 3 \$000's
2019 Consolidated						
Financial assets						
Cash and cash equivalents	11	92,814	92,814	-	-	-
Receivables	12	15,286	15,286	-	-	-
Other financial assets at amortised cost						
Bank deposits	13	686	686	-	-	-
Financial assets at fair value through profit or loss						
Financial assets at fair value through profit & loss - Listed securities	13	3,311	3,311	3,311	-	-
Managed funds	13	70,998	70,998	70,998	-	-
Investment in equity instruments designated at fair value through other comprehensive income						
Unlisted securities	13	45,472	45,472	-	-	45,472
Total financial assets		228,567	228,567	74,309	-	45,472
Non-financial assets						
Investment properties	14	235,768	235,768	-	235,768	-
Land	15	240,691	240,691	-	240,691	-
Buildings	15	317,899	317,899	-	-	317,899
Infrastructure	15	34,141	34,141	-	-	34,141
Artworks	15	7,438	7,438	-	7,438	-
Total non-financial assets		835,937	835,937	-	483,897	352,040
Financial liabilities						
Payables	17	24,742	24,742	-	-	-
Borrowings	18	3,738	4,516	4,516	-	-
Resident loan	20	191,013	191,013	-	-	191,013
Total liabilities		219,493	220,271	4,516	-	191,013

29 Fair value measurement

(b). Fair value hierarchy

	Note	Carrying amount \$000's	Fair value \$000's	Level 1 \$000's	Level 2 \$000's	Level 3 \$000's
2018 Consolidated						
Financial assets						
Cash and cash equivalents	11	44,086	44,086	-	-	-
Receivables	12	18,826	18,826	-	-	-
Other financial assets at amortised cost						
Bank deposits	13	76,516	76,516	-	-	-
Other financial assets at fair value through profit or loss						
Listed securities	13	1,483	1,483	1,483	-	-
Managed funds	13	63,748	63,748	63,748	-	-
Investment in equity instruments designated at fair value through other comprehensive income						
Unlisted securities	13	28,856	28,856	-	-	28,856
Derivative financial instruments		57	57	-	57	-
Total financial assets		233,572	233,572	65,231	57	28,856
Non-financial assets						
Investment properties	14	238,888	238,888	-	238,888	-
Land	15	236,794	236,794	-	236,794	-
Buildings	15	311,377	311,377	-	-	311,377
Infrastructure	15	33,609	33,609	-	-	33,609
Artworks	15	7,309	7,309	-	7,309	-
Total non-financial assets		827,977	827,977	-	482,991	344,986
Financial liabilities						
Payables	17	25,050	25,050	-	-	-
Borrowings	18	4,110	4,858	4,858	-	-
Resident loan	20	194,778	194,778	-	-	194,778
Total financial liabilities		223,938	224,686	4,858	-	194,778

(ii) Disclosed fair values

The Group has a number of assets and liabilities which are not measured at fair value, but for which the fair values are disclosed in the notes.

The fair value of financial assets and financial liabilities with standard terms and conditions and traded on active liquid markets are determined with reference to quoted market prices.

The carrying value less impairment provision of trade receivables and payables is a reasonable approximation of their fair values due to the short-term nature of trade receivables.

All other financial assets and liabilities are recorded at amortised cost in the financial statement and their carrying value approximates their fair value.

(c). Valuation techniques to derive fair values

The fair value of financial instruments that are not traded in an active market is determined using valuation techniques. These valuation techniques maximise the use of observable market data where it is available and rely as little as possible on entity specific estimates. If all significant inputs required to fair value an instrument are observable, the instrument is included in level 2.

If one or more of the significant inputs is not based on observable market data, the instrument is included in level 3. This is the case for unlisted securities.

The Group uses a variety of methods and makes assumptions that are based on market conditions existing at each balance sheet date. Specific valuation techniques used to value financial instruments include:

- the use of quoted market prices or dealer quotes for similar instruments
- the fair value of forward foreign exchange contracts is determined using forward exchange rate at the end of the reporting period
- other techniques, such as discounted cash flow analysis, are used to determine fair value for the remaining financial instruments

All of the resulting fair value estimates are included in level 2 except for unlisted securities, explained in (d) below.

Investment properties are valued independently each year whilst artworks are valued independently every 3 years.

29 Fair value measurement

(c). Valuation techniques to derive fair values

Land, buildings and infrastructure (classified as property, plant and equipment) are valued independently every 3 years, along with an annual desktop valuation. At the end of each reporting period, the Group updates their assessment of the fair value of each property, taking into account the most recent independent valuations. The Group determines the property's value within a range of reasonable fair value estimates.

The 2019 valuation for the University's commercial building was conducted by an independent licensed valuer, McGees Property and the St Ives Retirement Village valuation was determined by utilising an industry specific valuation model developed by Ernst and Young Real Estate Advisory Services. The University's land valuation was performed by McGees Property, where building and infrastructure's valuation was conducted by Marsh Valuation Services.

All resulting fair value estimates for properties are included in level 3 except for land and investment properties. The level 2 fair value of land has been derived using sales comparison approach. Sale prices of comparable land in close proximity are adjusted for differences in key attributes. The most significant input into this valuation approach is price per square meter.

(d). Fair value measurements using significant unobservable inputs (level 3)

The following table is a reconciliation of level 3 items for the period ended 31 December 2019 and 2018.

	Buildings	Infrastructure	Unlisted securities	Resident loan	Total
	\$000's	\$000's	\$000's	\$000's	\$000's
2019					
Fair value at start of period	311,377	33,609	28,856	(194,778)	179,064
Acquisition	1,054	206	-	-	1,260
Disposal	(199)	(856)	-	-	(1,055)
Settlements	-	-	-	3,209	3,209
Revaluation increment / (decrement) recognised through other comprehensive income	11,913	1,840	16,616	-	30,369
Depreciation expense	(6,246)	(658)	-	-	(6,904)
Revaluation decrement recognised in profit or loss	-	-	-	556	556
	317,899	34,141	45,472	(191,013)	206,499
2018					
Fair value at start of period	300,689	31,605	15,701	(197,830)	150,165
Recognised in opening retained earnings	-	-	5,551	-	5,551
Acquisition	20,710	2,016	-	-	22,726
Settlements	-	-	-	877	877
Revaluation (decrement) / increment recognised through other comprehensive income	(3,721)	641	7,604	-	4,524
Depreciation expense	(6,301)	(653)	-	-	(6,954)
Revaluation decrement recognised in profit or loss	-	-	-	2,175	2,175
Closing Balance	311,377	33,609	28,856	(194,778)	179,064

(i) Transfers between levels 2 and 3 and changes in valuation techniques

There were no transfers of financial assets / liabilities between levels 2 and 3.

(ii) Valuation inputs and relationships to fair value

Description	Fair value at 31 December 2019 \$000's	Valuation technique	Unobservable inputs	Range of inputs (probability weighted average)	Relationship of unobservable inputs to fair value
Investment in unlisted securities	39,723	Adjusted net asset approach	Discounted rate on value of underlying unlisted securities	30%	Increase in the discount rate will result in lower fair value
Investment in unlisted securities	5,749	Adjusted net asset approach	100% of the equity interest in the underlying unlisted securities	Not applicable	Increase in equity will result in higher fair value

30 Related Parties

The ultimate parent entity within the Group is Murdoch University.

(a). Subsidiaries

The consolidated financial statements incorporate the assets, liabilities and results of the following subsidiaries in accordance with the accounting policy described in note 1(b):

Name of Entity	Principal place of business	Ownership interest %	
		2019	2018
Murdoch Investments Company Pty Ltd	Australia	100	100
Murdoch Retirement Services Pty Ltd	Australia	100	100
Innovative Chiropractic Learning Pty Ltd	Australia	100	100
Murdoch Ventures Pty Ltd	Australia	100	100
M.U.F.T Company Pty Ltd	Australia	100	100
Murdoch Singapore Pte Ltd	Singapore	100	100
Murdoch College Properties Pty Ltd	Australia	100	100
The Alan & Iris Peacocke Research Foundation	Australia	100	100

Murdoch College Properties Pty Ltd dissolved its intercompany arrangements with Murdoch University at 31 December 2019, and subsequently transferred its net assets to Murdoch University on 31 December 2019.

(b). Key management personnel

Disclosures relating to key management personnel are set out in note 27.

(c). Transactions with related parties

Aggregate amounts included in the determination of net result from ordinary activities that resulted from transactions with related parties:

	University	
	2019 \$000's	2018 \$000's
Wholly owned entity		
Donations, sponsorships and bequests	50	539
Other fees and charges	15,053	14,097
Dividend received	-	109
Rental and lease charges	(770)	(689)
Other expenditure	(48)	(394)
Recovery of salaries	(665)	(655)

(d). Outstanding balances

Aggregate amounts receivable from, and payable to, each class of related parties at balance date:

	University	
	2019 \$000's	2018 \$000's
Wholly owned entity		
Inter entity loan receivable	21	2,851
Inter entity loan (payable)	(46)	(123)

31 Superannuation - UniSuper defined benefit division

The Group currently contributes to the UniSuper defined benefit division (DBD) on behalf of certain employees. The DBD is a defined benefit plan under Superannuation Law but, as a result of amendments in 2006 to Clause 34 of the UniSuper Trust Deed, it is considered to be a defined contribution plan under AASB 119 "Employee benefits".

Financial position of the UniSuper defined benefit division

As at 30 June 2019, the assets of the DBD in aggregate were estimated to be \$5,643 million above vested benefits, after allowing for various reserves. The Vested Benefit Index based on funding assumptions was 125.4%. The vested benefits are benefits which are not conditional upon continued membership (or any factor other than leaving the service of the participating institution) and include the value of indexed pensions being provided by the DBD.

As at 30 June 2019, the assets of the DBD in aggregate were estimated to be \$7,301 million above accrued benefits, after allowing for various reserves. The Accrued Benefit Index based on best estimate assumptions was 135.5%. The accrued benefits have been calculated as the present value of expected future benefit payments to members and indexed pensioners which arise from membership of UniSuper up to the reporting date.

The vested benefit and accrued benefit liabilities were determined by the Fund's actuary using the actuarial demographic assumptions outlined in their report on the actuarial investigation of the DBD as at 30 June 2019. The financial assumptions used were:

	Vested Benefits	Accrued Benefits
Gross of tax investment return - DBD pensions	4.8% p.a.	6.1% p.a.
Gross of tax investment return - commercial rate indexed pensions	2.4% p.a.	2.4% p.a.
Net of tax investment return - non pensioner members	4.3% p.a.	5.5% p.a.
Consumer Price Index	2.0% p.a.	2.0% p.a.
Inflationary increases		
- For the next 3 years	2.75% p.a.	2.75% p.a.
- Beyond 3 years	3.0% p.a.	3.0% p.a.

Murdoch University

32 Acquittal of Australian Government Financial Assistance

(a) Education - CGS and other Education grants

	Commonwealth Grants Scheme ^{#1}		Access and Participation Pool		Disability Performance Funding ^{#2}		Promotion of Excellence in Learning and Teaching		Indigenous Student Success Program ^{#3}		Total
	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	
	\$000's	\$000's	\$000's	\$000's	\$000's	\$000's	\$000's	\$000's	\$000's	\$000's	\$000's
Parent Entity (University) Only											
Financial assistance received in CASH during the reporting period (total cash received from the Australian Government for the program)	97,069	96,503	2,329	2,154	199	197	-	-	1,200	1,072	100,797
Net accrual adjustments	-	-	-	-	-	-	-	-	(14)	(19)	(14)
Revenue for the period	97,069	96,503	2,329	2,154	199	197	-	-	1,186	1,053	100,783
Adjustment*	-	-	-	-	489	-	-	-	-	-	489
Surplus/(deficit) from the previous year	-	-	(14)	19	(489)	(342)	106	196	(460)	(241)	(857)
Total revenue including accrued revenue	97,069	96,503	2,315	2,173	199	(145)	106	196	726	812	100,415
Less expenses including accrued expenses	(97,069)	(96,503)	(2,329)	(2,187)	(199)	(344)	(41)	(90)	(1,074)	(1,272)	(100,712)
Surplus/(deficit) for reporting period	-	-	(14)	(14)	-	(489)	65	106	(348)	(460)	(297)

^{#1} Includes the basic CGS grant amount, CGS – Regional Loading, CGS – Medical Student Loading, Allocated Places, Non Designated Courses and CGS - Special Advances from Future Years.

^{#2} Disability Performance Funding includes Additional Support for Students with Disabilities and Australian Disability Clearinghouse on Education & Training.

* \$489k has been funded by the University.

^{#3} Indigenous Student Success Program has replaced the Indigenous Commonwealth Scholarships Program and the Indigenous Support Program as of 1 January 2017.

(b) Higher education loan programmes (excluding OS-HELP)

	HECS-HELP (Aust. Government payments only)		FEE-HELP		SA-HELP		Total
	2019	2018	2019	2018	2019	2018	
	\$000's	\$000's	\$000's	\$000's	\$000's	\$000's	\$000's
Parent Entity (University) Only							
Cash Payable/(Receivable) at the beginning of the year	(524)	550	(177)	486	(1)	49	(702)
Financial assistance received in cash during the reporting period	66,577	60,251	8,992	8,780	1,712	1,451	77,281
Cash available for the period	66,053	60,801	8,815	9,266	1,711	1,500	76,579
Revenue earned	66,206	61,325	9,111	9,443	1,710	1,501	77,027
Cash Payable/(Receivable) at the end of the year	(153)	(524)	(296)	(177)	1	(1)	(448)

32 Acquittal of Australian Government Financial Assistance

(c). Department of Education and Training Research

	Research Training Program		Research Support Program		Total	
	2019 \$000's	2018 \$000's	2019 \$000's	2018 \$000's	2019 \$000's	2018 \$000's
Parent Entity (University) Only						
Financial assistance received in CASH during the reporting period (total cash received from the Australian Government for the program)	9,741	9,852	7,572	7,975	17,313	17,827
Net accrual adjustments	-	889	-	-	-	889
Revenue for the period	2(c) 9,741	9,852	7,572	7,975	17,313	17,827
Surplus/(deficit) from the previous year	-	(2,801)	-	(4,072)	-	(6,873)
Total revenue including accrued revenue	9,741	7,051	7,572	3,903	17,313	10,954
Less expenses including accrued expenses	(8,916)	(7,051)	(7,572)	(3,903)	(17,313)	(10,954)
Surplus/(deficit) for reporting period	825	-	-	-	-	-

(d). Total Higher Education Provider Research Training Program expenditure

	Total domestic students \$000's	Total overseas students \$000's
Research Training Program Fees offsets	5,280	432
Research Training Program Stipends	2,878	312
Research Training Program Allowances	-	14
Total for all types of support	8,158	758

(e). Other Capital Funding

	Linkage Infrastructure, Equipment and Facilities Grant		Total	
	2019 \$000's	2018 \$000's	2019 \$000's	2018 \$000's
Parent Entity (University) Only				
Surplus/(deficit) from the previous year	-	1,980	-	1,980
Total revenue including accrued revenue	-	1,980	-	1,980
Less expenses including accrued expenses	-	(1,980)	-	(1,980)
Surplus/(deficit) for reporting period	-	-	-	-

(f). Australian Research Council Grants

	Discovery		Linkages		Total	
	2019 \$000's	2018 \$000's	2019 \$000's	2018 \$000's	2019 \$000's	2018 \$000's
Parent Entity (University) Only						
Financial assistance received in CASH during the reporting period (total cash received from the Australian Government for the program)	806	761	575	948	1,381	1,709
Net accrual adjustments	(189)	(156)	(128)	(258)	(317)	(414)
Revenue for the period	2(d) 617	605	447	690	1,064	1,295
Surplus/(deficit) from the previous year	2,781	2,955	2,578	2,768	5,359	5,723
Total revenue including accrued revenue	3,398	3,560	3,025	3,458	6,423	7,018
Less expenses including accrued expenses	(803)	(779)	(721)	(880)	(1,524)	(1,659)
Surplus/(deficit) for reporting period	2,595	2,781	2,304	2,578	4,899	5,359

32 Acquittal of Australian Government Financial Assistance

(g). OS-HELP

		2019	2018
	Note	\$000's	\$000's
Parent Entity (University) Only			
Cash received during the reporting period		863	668
Cash spent during the reporting period		(621)	(576)
Net cash received		242	92
Cash surplus/(deficit) from the previous period		215	123
Cash surplus/(deficit) for the reporting period	17	457	215

(h). Student Services and Amenities Fee

		2019	2018
		\$000's	\$000's
Parent Entity (University) Only			
SA-HELP revenue earned	2(b)	1,710	1,501
Student Services and Amenities Fees direct from students	4	1,968	1,724
Total revenue expendable in period		3,678	3,225
Student services expenses during period		(3,678)	(3,225)
Unspent/(overspent) student services revenue		-	-





Key Performance Indicators

Artist credit: Amok Island – Blossoming Tea Tree (detail).

The University is two years into its *Strategic Plan and Future Horizon 2017-2027* and is delivering on the projects and broad initiatives that take us towards achieving our core goals.

The Key Performance Indicators reported here assess important measurable outcomes for Murdoch University in the areas of Education and Students, Research, and Operations. They each measure either the effectiveness of the University's efforts in reaching those strategic goals by achieving a given result, or the efficiency of the University's efforts by comparing one result to another in a ratio.

In December 2016, the Murdoch University Senate approved a core set of Key Performance Indicators which include targets for 2020 and 2025. The performance measures against which the success of the Strategic Plan 2017-2027 is assessed are a subset of those indicators. Senate has endorsed Management defined interim targets for these measures.

EDUCATION AND STUDENTS OUTCOMES

Murdoch University is committed to ensuring all students have an outstanding experience at university. Implementation of strategies to build both traditional and non-traditional domestic cohorts and international student load have seen more students choosing to come to Murdoch.

The key indicators relating to Education and Students are:

- Undergraduate course satisfaction as measured by the Social Research Centre for Quality Indicators for Learning and Teaching (QILT).
- Retention Rate for commencing domestic bachelor students.
- Number of commencing Domestic undergraduate Students from low SES background.
- Number of commencing Domestic Students from regional or remote areas.
- Number of commencing Domestic Students that identify themselves as being of Aboriginal and Torres Strait Islander (ATSI) heritage.
- Commencing International onshore student load.

RESEARCH OUTCOMES

Murdoch University's research has a 'real world' focus that stems from the translational nature and substance of research programs and partnerships. The core of our approach to translational research and innovation remains our three major research institutes: The Food Futures Institute focused on food security; Harry Butler Institute supporting the co-existence of development and environmental sustainability; and the Health Futures Institute centred on human and animal health and welfare.

The key indicators relating to Research are:

- Total Higher Education Research Data Collection (HERDC) income received.
- Engagement Income (HERDC Categories 2–4: Industry and other Research and Development (R&D) income; Other public sector R&D income; Cooperative Research Centre R&D income).

OPERATIONAL OUTCOMES

Universities need to be efficient and productive to be able to invest in their activities and be competitive internationally. Strategies and operations need to be resilient to increasing competition for both research funding and student enrolments, and uncertain and contested Commonwealth funding and regulation.

Building a strong financial platform is a critical objective of the first five years of the Strategic Plan. In order to have a strong future, we will have a clear focus on growth in student numbers, student retention and completion, strategic management of our costs and strategic investment in high value initiatives.

The key indicator relating to Operations, measured at the consolidated level, is:

- Operating Margin, expressed as a percentage.

EDUCATION AND STUDENTS OUTCOMES EFFECTIVENESS INDICATORS

Undergraduate Course Satisfaction

The learning and teaching environment has been strategically developed over the last few years to enhance support for the varied learning needs of students. The University monitors and refreshes curriculum design, assessment, pedagogy and delivery methods to ensure the students' and University's academic objectives are met in an effective manner. Initiatives have been built around five core strategic directions: innovative curriculum design, inclusive education and student support, academic leadership, integrated digital experience, and utilising students as change agents.

The University participates in the annual national Course Evaluation Questionnaire (CEQ), part of the Quality Indicators of Learning and Teaching (QILT) suite of surveys.

In this survey, graduates who completed their undergraduate course in the previous year are asked to express their agreement or disagreement with a series of statements. This indicator monitors the students' impression of their study experience.

Data is collected in the November and May following the completion of the graduate's qualification. The results from the 2019 survey are Murdoch University's unpublished figures. In 2019, the number of graduates surveyed who provided valid CEQ responses was 746 with a Graduate Outcomes Survey response rate of 45.3% in November 2018 and 47.4% in May 2019. The 95% margin for error for 2019 is $83.0 \pm 2.7\%$.

Murdoch University is statistically significantly above the national average for student satisfaction.

Undergraduate Course Satisfaction (CEQ Scale) measured by Social Research Centre

2020 Target	> National Average
2019 Target	>80.1
2019 Result	83.0
2018 Result	80.2

Commencing student retention rate

Retention of students is influenced by a wide range of factors, including personal factors beyond the University's control such as financial imperatives, carer responsibilities and timing of offerings. Of the factors capable of being influenced by the University, the core of student retention is whether the program of study provided is meeting each student's aspirations.

Students who are engaged with their course, campus and peers are typically more successful in their studies and are therefore more likely to be retained at University. Murdoch provides a range of 'success strategies' that initially engage students and then support them to make the most of their teaching and learning opportunities, as well as campus life and the real-world opportunities provided as part of their studies. There is a focus on first year as the foundation to future success.

The retention rate indicates the percentage of commencing, domestic students who continue in their bachelor's level course studies in the higher education sector from the listed academic year to the next, excluding those who graduate. The 2017 retention rate reflects those domestic students who commenced their studies in 2017 and were retained in the sector into 2018. This is the most recent year for which validated data is available through the Higher Education Statistics Collection of the Department of Education, Skills and Employment as the adjusted retention rate and is the measure used by the Department to determine our performance based funding. The final retained value from 2018 into 2019 is unknown at the time of this report, because students are yet to complete unit enrolments, which may extend to the end of 2019.

Implementation of the strategies indicated has maintained progress made towards the 2020 target. The University continues to monitor and review student progression to inform student support strategies to reduce student attrition.

Commencing student retention rate (Domestic Students)

2020 Target	82.2%
2017 Target	>82%
2017 Result	81.3%
2016 Result	81.7%

Participation of non-traditional cohorts

Murdoch's student population includes proportionally higher cohorts of students from non-traditional backgrounds compared to the sector average. This is the result of a suite of linked pathways to entry that have been developed to facilitate inclusive entry for the broadest range of applicants and support their enrolment at University. Murdoch is focussed on students developing 'cultural capital' through academic support, pastoral care and financial assistance to support students' successful university study. This indicator measures the effectiveness of the facilities and services put in place to assist students from these cohorts to enter university.

Low socio-economic status (SES) is determined by the position of a student's postcode of permanent home residence in a socio-economic ranking compiled by the Australian Bureau of Statistics using demographic and social data collected in the population census. The lowest quartile is classified as low SES. The number of commencing undergraduate students from a low SES background is calculated using Australian Bureau of Statistics 2016 census data on socio-economic status of residential postcodes.

The number of commencing Domestic students from regional or remote areas is calculated based on students' postcode of permanent home residence mapped to regional/remote categories using the Australian Statistical Geography Standard (ASGS) Volume 5-Remoteness Structure.

The number of Aboriginal or Torres Strait Islander students is measured as those domestic students commencing a degree in that year that self-identify as Aboriginal or Torres Strait Islander (ATSI).

Numbers of students have been used to ensure growth in these cohorts is recognised, given expansion in the commencing cohort is varied and impacted by factors outside the control of the University, particularly the impact of

Government policy measures. The most recent year for which validated data is available through the Higher Education Statistics Collection of the Department of Education, Skills and Employment is 2018. This data has been used in the determining the student numbers included in the indicators below.

Students from the low SES and Regional and Remote communities generally face greater challenges to their university aspirations - financial burden and unfavourable learning environment being two examples. The 'OnTrack' enabling program is an on-campus, pre-university course designed to assist people from disadvantaged or disrupted educational backgrounds to enable their entry to university. Murdoch consistently over-enrol this program to meet demand and to facilitate the entry of non-traditional students that enables the University to make steady progress towards 2020 targets.

A focus on recruitment and retention of ATSI students has seen steady growth in ATSI enrolments to achieve a level of 2% of the domestic enrolled cohort, the highest proportion of any WA university. This growth in overall numbers builds on strong enrolment of new students, as seen in this indicator, as well as student support mechanisms that have helped increase ATSI retention rates to equal the whole of University average. The 2018 result was below the targeted intake but remains within an acceptable range and, in part, reflects the University's aim to increase the academic capacity of ATSI students to help ensure successful academic outcomes.

Commencing International onshore student load

Murdoch University aspires to be a global institution which seeks to empower people everywhere through education. This global outlook has begun to be realised, with sustainable growth in onshore international students, and new and renewed educational partnerships.

The indicator is measured by the equivalent full time student load (EFTSL) of international fee-paying students who commenced their course of study in the year at an Australian campus.

Murdoch University has an ambition to build strongly on what was one of the lowest international onshore cohorts in the country. In 2018 our 2020 target for commencing international student numbers was 840. As this was significantly exceeded in 2018, the target was rebased with a relatively high target for onshore international student growth reflecting the rate of growth demonstrated. While Murdoch has maintained sustainable levels of growth in international student numbers, growth was below target as a result of weakness in the international student market in Western Australia and a refocussing of marketing towards expanding the range of countries from which students choose to come to Murdoch.

International Onshore Student Commencements (EFTSL)

2020 Target	2,000
2019 Target	1,800
2019 Result	1,553
2018 Result	1,132

Number of domestic students from non-traditional cohorts¹

	Commencing Undergraduate students	Commencing students	
	Low SES ²	Regional or Remote ³	ATSI Students
2020 Target	>775	>683	>164
2018 Target	>750	>620	>160
2018 Result	813	703	139
2017 Result	754	772	148

¹ In the 2018 Annual Report this indicator was expressed as a percentage of the relevant cohort. The 2017 result has been recast as a number of students to allow direct comparison with the 2018 result.

² Low SES is based on the students' postcode of permanent home residence. Students are classified as being Low SES if their permanent address is in an area in the bottom 25% of the 2016 SEIFA Education and Occupation Index for 15-64 year olds.

³ Regional and remote categories are derived from 2016 ASGS classifications

RESEARCH OUTCOMES EFFECTIVENESS INDICATORS

Total research income

Research activities at Murdoch are shaped toward consolidation and critical mass in key research areas to make a contribution at the local, national and global level. Our research is translational in nature and substance, with inspiration coming from our local community and industry-based partnerships, as well as from national and international collaborators with whom we tackle some of the major challenges of our time.

In meeting its goal of providing life changing solutions to complex world challenges, Murdoch University has strengthened interdisciplinary research programs. In particular, it has established three key research Institutes across the interconnected themes of health futures, food futures and sustainable development.

Research income is one indicator of performance measuring the growth in research income across all category types. The measure used is total income reported by the University in the Higher Education Research Data Collection (HERDC) across Categories 1–4. Data for 2018 is reported as this is the most recent audited data available from the Department of Education, Skills and Employment.

The University's continuing strategic focus on key research themes is being recognised and rewarded with research funding success from government agencies and industry partners. Building from the strong result in 2018, the University expects to significantly exceed our 2020 target.

Total research income (HERDC Categories 1-4)

2020 Target	\$40,000,000
2018 Target	\$30,964,000
2018 Result	\$33,919,058
2017 Result	\$28,585,261

Engagement income

Strengthening research engagement with external partners remains an institutional priority. Murdoch University has strategically developed local and international collaborations that build research income and support mechanisms in a manner that makes the University resilient to external funding policy changes and adaptable to national and global needs.

The Research Institutes ensure that strong partnerships are built, and critical mass developed to strengthen research reputation and profile. They provide a strong platform for increasing the number and scope of our strategic research partnerships with local, national and international industry partners and universities and research institutes.

A major area of focus of external engagement is the Australian National Phenome Centre (ANPC), a world-class platform for transforming how we prevent, identify and treat disease; which will also be a platform for study and translation to address other significant health-related global challenges, including in relation to agriculture and food; linked to a global network of phenome centres.

The Higher Education Research Data Collection (HERDC) Categories 2 to 4 cover Industry and other Research and Development (R&D) income; Other public sector R&D income; and Cooperative Research Centre R&D income. Each of these require external engagement to generate reportable research income, in some cases requiring co-investment that is leveraged to obtain Commonwealth Government funding. This indicator measures income derived from industry engagement by aggregating research income across the HERDC Categories 2-4. Data for 2018 is reported as this is the most recent audited data available from the Department of Education, Skills and Employment.

During 2018 the Research Institutes were being established in their current form and the ANPC was building its research profile. As a result, 2018 was a development year for engagement income and, although the University had an increase in income, there was a shortfall against the annual target. Murdoch expects that the structures set in place will give rise to improved engagement income in future years.

Total Engagement Income in Categories 2-4 (HERDC)

2020 Target	\$25,000,000
2018 Target	\$19,115,000
2018 Result	\$16,270,411
2017 Result	\$15,423,096

OPERATIONAL OUTCOMES EFFICIENCY INDICATOR

Consolidated - Operating Margin

The Senate has ensured that the University delivers on financial sustainability, while maintaining its educational and research excellence.

The Operating Margin is a measure of the consolidated surplus which supports the University's capital and strategic investment requirements. It is calculated as the consolidated surplus or deficiency as a percentage of total consolidated income.

Murdoch University successfully managed productivity gains through administrative efficiencies, while continuing to grow income, notably through research and international student income.

Consolidated Operating Margin

2020 Target	>5%
2019 Target	4%
2019 Result	6.0%
2018 Result	4.2%

Other Disclosures

Artist credit: Trevor Richards – Workout (detail).

PEOPLE, VALUES AND CULTURE

It is the people of Murdoch University and their commitment that has shaped our significant progress in 2019 towards achieving our strategic objectives. The following provides a snapshot of the growth and development of our staff profile as at December 31, 2019:

Headcount	Continuous and Fixed Term	Casual
Academic	629	930
Professional	998	816
Total	1626	1656

Significant achievements in 2019 included implementation of the new two-College academic structure and a realignment of College professional staff support services. This realignment will help us deliver on our strategy by promoting collaboration and multidisciplinary thinking. These changes further enhance our operations by integrating our support functions and processes for staff and students within the Colleges.

Our new academic model also helps us attract and develop higher education leaders with broader remits and responsibilities beyond disciplinary boundaries. We have invested strategically in new hires across the University to lead our new College model, as well as launching the Australian National Phenome Centre.

2019 saw the development and implementation of the Academic Career Framework to provide a transparent and consistent approach to probation and promotion, along with outcome and workload expectations for academic staff. These changes enable our academic staff to achieve career success and contribute to the achievement of Murdoch's strategic objectives, in particular, our goals under the People, Values and Culture pillar of the University's Strategic Plan.

In 2019 we made a seamless transition to Single Touch Payroll, and produced new and improved management insights via analytics dashboards, providing Murdoch's leaders with improved access to people data to support evidence-based decisions.

SAFETY, HEALTH AND WELLBEING

Murdoch University is a diverse and complex workplace where all hazards are managed through the Safety, Health and Wellbeing Management Plan. Overview of outcomes of the Plan for 2018-2019 include:

- Achievement of the University's 2020 target of less than 0.6 Lost Time Injury Frequency Rate.
- Achievement Award (Silver) for meeting the audit criteria of the Department of Mines, Industry Regulation & Safety.
- The University achieved Gold Mental Health First Aid recognition. In addition, the University has continued to actively promote Mental Health First Aid with three Full Courses and an additional three refresher courses conducted in 2019. This has added an additional 57 Mental Health First Aiders, bringing the total to 246 staff undertaking this training from March 2013.

We know that our people put their full energy into their work and recognise how important wellbeing is to our people and our organisation. We actively promote good mental health and a healthy lifestyle through various supported activities. Throughout 2019 mental health awareness and training campaigns were also held, with sessions attended by both staff and students. R U OK? Day events were organised in local areas throughout the University, and other self-care activities and sessions were held in late 2019.

Wellbeing will continue to be a core part of helping us achieve our strategy through our people: an inclusive and safe environment is critical to the wellbeing of our staff and students. Our wellbeing initiatives are based on the premise that all people at Murdoch can bring their whole selves to our organisation, and for it to be culturally and socially safe to do so. When staff and students can bring their whole selves to work or study, their sense of wellbeing, work and study satisfaction, and organisational commitment are enhanced. In 2019 we undertook a refresh of the on-site Employee Assistance Program. From 2020 a number of new and improved services will be available to staff including, but not limited to specialist wellbeing coaching, financial and nutritional coaching, and access to psychologists in 32 different languages.

Safety Performance Snapshot:

- 0.43 Lost Time Injury (LTI) rate.
- 226 safety incidents.
- 729 days lost to injury.
- 30 workers compensation claims.
- 140 first aid and medical treatment Injuries.



WORKFORCE EQUITY, DIVERSITY AND INCLUSION

Murdoch values respect and diversity: we are about people, for people, irrespective of identity or background and this commitment extends to all staff, students and visitors to the University. We embrace and value the many individuals and organisations that support our endeavours. Our Guiding Principle of Equity and Social Justice ensures that equity, diversity and inclusion will always be a key focus for us. 2019 saw much work undertaken in support of our strategic objective to improve gender and Indigenous equity across our workforce, and to ensure our culture of inclusivity continues to progress:

- Submission of the Science and Gender Equity (SAGE) Athena Swan Bronze Accreditation application and implementation of the SAGE Athena Swan Action Plan.
- Increased female senior staff participation by 2.7% to 37.6% across the University and exceeded the University's 2020 target with 37%.
- Increased Aboriginal and Torres Strait Islander Employment to 0.95%, and improved cultural awareness training and participation rates.

- Initiated our Aboriginal and Torres Strait Islander Employment Talent Register as part of our attraction and engagement strategy.
- Employment of an Equity and Cultural Liaison Officer to enhance links to communities and to progress our agenda to be an Employer of Choice for Aboriginal and Torres Strait Islander people.
- Targeted retention efforts for existing Aboriginal and Torres Strait Islander staff, with successful conversion of two academic staff from part-time to full-time employment.
- Celebration of Pride Month to support our LGBTIQ+ communities. Once again, Murdoch's staff and students joined the Pride Parade through the streets of Perth.

Murdoch will continue to pursue its equity, diversity and inclusion agenda by working closely with the WA SAGE Network to implement a consistent approach to performance relative to opportunity for our workforce, undertaking a review and refresh of our recruitment practices to highlight Aboriginal and Torres Strait Islander candidates, and increasing our recruitment rates while we continue to build our networks with the National Higher Education Indigenous Employment Coordinators.

DEVELOPING OUR PEOPLE

Murdoch recognises the importance of outstanding leadership across our University, and so we are focused on building leadership capability through development opportunities for our University Leadership Group (ULG) and our emerging academic leaders. 2019 also saw a focus on onboarding of new leaders, and emphasis on performance management systems and processes, and career conversations:

- 268 professional development sessions were delivered across the University, comprised of 390 training hours with 2,196 attendances.
- Implementation of a pilot graduate program to facilitate increased employment opportunities for our students, creating a pathway for entry level positions for emerging talent, and increasing the diversity of our workforce.
- Following an extensive co-design and consultation process, we developed a new structure for College Professional Services to deliver a more collaborative, agile and effective support structure for our Colleges. The new structure will provide greater opportunities for professional staff career progression, minimise the risks associated with single points of failure and greatly improve our ability to manage changes in demand for professional services support between functional areas and across the year.
- Launch of a new tool and approach to managing academic performance and career development, aligned to the Academic Career Framework and new Probationary Review and Promotion processes, and supported by leader coaching and information for staff.

RECORDS MANAGEMENT

Murdoch University is required to report on strategies for ensuring staff compliance with the University's recordkeeping plan. Under Section 61 of the State Records Act 2000, the State Records Commission (SRC) is responsible for establishing principles and standards to govern recordkeeping by government organisations. The following information is provided in accordance with Principle 6 of SRC Standard 2: Recordkeeping Plans.

The University's current Recordkeeping Plan was approved by the State Records Commission on 10 August 2018 for a period of 5 years. The University's recordkeeping policies, guidelines, procedures, disposal arrangements and disaster plan are reviewed and updated at least every three years.

The University conducts an online recordkeeping awareness-training course for its staff. The self-paced training addresses staff responsibilities under the State Records Act 2000 including the creation, capture, access, management and disposal of records, confidentiality and privacy issues, and security considerations. Training course completions are recorded in the staff development and training management system. Staff are required to undertake refresher training every two years.

The training program serves the following aims:

- Raise staff awareness of their responsibilities under the State Records Act 2000 and other applicable legislation; and
- Raise the overall standard of recordkeeping at the University.

The recordkeeping awareness-training course is reviewed annually to maintain its currency and relevance.

All new staff are enrolled in the recordkeeping training course. In addition, information about recordkeeping requirements, is provided during the induction of a new employee.

The University has implemented cloud-based HPE Content Manager in the University Secretary's Office. The EDRMS deployment delivers improvements in the management of records and information. Further deployments are in development.

GOVERNANCE DISCLOSURES

Impact of legislation

There have been no amendments to legislation to which the University is subject which could have had a material impact on the University's operations.

COMPLAINTS HANDLING

Murdoch University strives for excellence in its dealings with staff, students and the broader community. However, on occasion, it may receive negative feedback or people express dissatisfaction or displeasure with an experience and lodge a complaint. The feedback provided through the complaints process informs the University's continuous improvement programs.

The University is committed to ensuring that all complaints are handled effectively and efficiently in a process that is supported by our Complaints Management Policy and is accessible, impartial, confidential, equitable and sensitive. Complaints are managed with respect for all parties involved and procedural fairness.

Processes are in place such that members of staff, students or the public can lodge a complaint with the University. Further information is available on the University's website <http://our.murdoch.edu.au/University-Secretarys-Office/Governance-Services/Complaints/>

An independent external review of student complaints management was carried out in late 2019. The report contained a number of commendations and recommendations. An action plan is in development to address implementation of recommendations.

FREEDOM OF INFORMATION

This year Murdoch University received seven applications (of which two applications are still current) under Freedom of Information legislation, including three third-party consultation requests (one of which was withdrawn). In addition, the University received two requests for information that could be provide outside of the Freedom of Information process.

Two 2018 applications proceeded to external review in 2019 and are still current. Three requests received in 2018 did not meet the requirements of a valid application under the legislation and did not progress. These files were closed in 2019.





Patju Presley – Kumpukura, 2017
Acrylic on canvas, 137 x 140cm,
purchased 2018 (cover)
© Patju Presley/Licensed by Copyright
Agency, 2020



Brian McKay – Geometer, 1973
Oil on canvas on board, 91 x 122cm,
donated by Dr Jeffrey and Di Hay 2011
(inner cover)
© Estate of Brian McKay



**Amok Island – Flowering Eucalyptus
Marginata 1, 2019**
Commissioned mural (p2)
© Amok Island

Art Featured



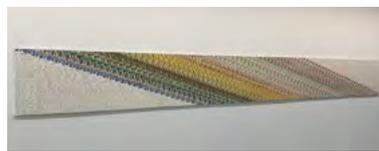
Stuart Green – End-Start-End, 2018
Automotive paint on aluminium,
public art commission (p6)
© Stuart Green



Gemma Smith – Boulder #2, 2008
Edition 1 of 10
Acrylic plastic, 94 x 64 x 80cm,
purchased 2009 (p20)
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Timothy Cook – Kulama, 2011
Natural ochres and pigments
on linen, 120 x 200cm, purchased
through fundraising appeal 2012 (p36)
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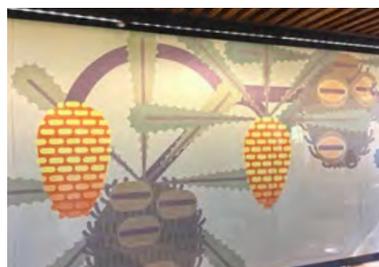
Eveline Kotai – Space Shift, 2019
Acrylic, nylon thread on canvas
46 x 457.5cm, purchased 2019 (p50)
© Eveline Kotai



Darren Hutchens – Untitled, 2018
Commissioned mural (p56)
© Darren Hutchens



**Marion Borgelt – Liquid Light:
Horizontal Triptych #2, 2010**
Canvas, acrylic, timber and pins
152 x 298cm, donated by the artist 2012
(p68) © Marion Borgelt/Licensed by
Copyright Agency, 2020



**Amok Island – Banksia Lemanniana,
2018**
Commissioned mural (p82)
© Amok Island



**Amok Island – Blossoming Tea Tree,
2019**
Commissioned mural (p134)
© Amok Island



Henry Wambini – Doweloo - Dalarji Junction (Cross Roads), 1997
Ochre and acrylic on linen,
140 x 160cm, purchased 2018 (p4)
© Estate of Henry Wambini/Licensed
by Copyright Agency, 2020



Kyle Hughes-Odgers – Help is on the way, 2010
Aerosol paint on board,
commissioned mural 2010 (p26)
© Kyle Hughes-Odgers



Freda Warlapinni – Pwoja-Pukumani, 2002
Natural earth pigments and binder
on paper, 77 x 57cm, purchased 2013
(p64) © Estate of Freda Warlapinni



Trevor Richards – Workout, 2008
Acrylic on canvas, 83 x 332cm,
purchased 2009 (p138)
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Vice Chancellor Eeva Leinonen with Murdoch University Art Collection,
Curator Mark Stewart and Board Chair Margaret Moore.

THE CAMPUS IS OUR GALLERY

It should come as no surprise that Murdoch University's natural inclination toward inclusivity and opportunity for all is mirrored in the way that contemporary art infiltrates the campus landscape.

Murdoch University Art Collection was founded 45 years ago with a series of artworks donated by just four generous patrons to celebrate the University's inauguration.

Since then, it has grown to feature over 2000 individual works – the result of strategic purchases, public art commissions, generous gifts, financial donations and bequests.

Works by iconic Australian artists, including Charles Blackman, Sidney Nolan, Robert Juniper, Lloyd Rees and Tjapaltjarri Tim Leura to name a few, are represented. More recently, new features of abstraction, photo-media and urban and desert-based Indigenous art acquisitions have been developed.

While many university art collections can be found in stand-alone art museums, Murdoch has a point of difference. Instead, art that reflects contemporary

Australia, the political landscape and issues of importance to the University's students populates the campus – from walkways, the library, buildings and offices, to student common areas and in the natural environment. This proximity has allowed art to be actively integrated into the University's teaching and learning programs.

In 2019, Murdoch presented the inaugural International Creative Visitor Lecture, with acclaimed contemporary Dutch artist and innovator Daan Roosegaarde exploring the social role of design, along with projects that merge technology, sustainability and art in urban environments.

During a three-day visit to Murdoch, Roosegaarde discussed his studio practice and exchanged ideas with staff and students studying art, sustainability and environmental engineering.

Again in 2019, the University's significant collection of indigenous art from the Tiwi Islands was shown at the University's Art Gallery in an exhibition titled *Purnaya-Ninganni-Pangarri* (yesterday, today and tomorrow).

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